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Exploration of factors associated with eating disorders in gay men

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EXPLORATION OF FACTORS ASSOCIATED WITH EATING DISORDERS IN GAY MEN

by

Catherine Do Jackson

An Abstract

Of a thesis submitted in partial fulfillment
of the requirements for the Doctor of
Philosophy degree in Psychological and Quantitative Foundations (Counseling Psychology)
in the Graduate College of
The University of Iowa

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Thesis Supervisor: Professor John Westefeld

ABSTRACT

There is an overrepresentation of gay men seeking treatment for eating disorders. This study investigated several factors that were thought to possibly impact the prevalence rates of gay men seeking treatment for eating disorders. The current study investigated the influence that gender role conflict, attitudes towards help seeking, symptom recognition, and media influence have on the prevalence of eating disorders. Nationwide participant recruitment was utilized to gather a sample that consisted of 86 heterosexual men and 75 gay men. Multivariate and univariate analyses of variance were utilized to examine the differences between gay and heterosexual men on the factors of interest. A significant difference was not found between gay and heterosexual men related to gender role conflict or media influence. However, a significant difference was found between heterosexual and gay men on measures of attitudes towards help seeking and symptom recognition. The results support that gender role conflict may have a limited role in the development of eating disorders in gay men and that mental health prevention and awareness within the gay community may be having a positive impact. Implications for the prevention and treatment of eating disorders are discussed as well as directions for future research.

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CERTIFICATE OF APPROVAL

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PH.D. THESIS

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This is to certify that the Ph.D. thesis of

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CHAPTER 1

INTRODUCTION AND REVIEW OF THE LITERATURE

Women comprise 85-90% of the eating disorder clinical population and in the community prevalence rates for men that have been diagnosed with full or partial eating disorders have been found to be 2% in comparison to women at 4.8% (Braun, Sunday, Haung, & Halmi, 1996; Carlat, Carmargo, & Herzog, 1997; Woodside et al., 2001). Due to the large number of women presenting with eating pathology, women have become the primary focus of eating pathology research. The tendency for eating disorder work to focus on women extends beyond just research, as it can also be seen in treatment, assessment, and diagnosis.

The Diagnostic and Statistical Manual of Mental Disorders-IV-TR (DSM-IV-TR) describes eating disorders as "a severe disturbance in eating behavior" (American Psychiatric Association [APA], 2000, p. 583). Anorexia Nervosa and Bulimia Nervosa are the specific eating disorder diagnoses that are included in the DSM-IV-TR. The DSM-IV-TR broadly defines Anorexia Nervosa as a refusal to maintain a minimally normal body weight. The criteria of the DSM-IV-TR states that in order to be diagnosed with Anorexia Nervosa one must be "experiencing a refusal to maintain body weight at or above a minimally normal weight for age and height, an intense fear of gaining weight or becoming fat, even though underweight, a disturbance in the way in which one's body weight or shape is experienced, and in women the absence of at least three consecutive menstrual cycles" (p. 589). The DSM-IV-TR allows for the specification of type of Anorexia Nervosa: Restricting Type and Binge-Eating/Purging Type. Bulimia Nervosa is broadly defined as repeated episodes of binge eating followed by inappropriate compensatory behaviors such as self-induced vomiting; misuse of laxatives, diuretics, or other medications; fasting; or excessive exercise. The DSM-IV-TR criteria states that in addition to the binging and compensatory behavior, one must be binging and utilizing

compensatory behavior, on average, twice a week and the person should be experiencing self-evaluation that is unduly influenced by body shape and weight. The DSM-IV-TR distinguishes between different types of Bulimia Nervosa: Purging Type and Nonpurging Type. The DSM-IV-TR includes an additional diagnosis of Eating Disorders Not Otherwise Specified, which allows for a diagnosis for those individuals who may not meet full criteria for Anorexia Nervosa or Bulimia Nervosa.

The diagnosis of certain eating disorders, such as Anorexia Nervosa or Bulimia Nervosa, is rarely considered for the male population because of the view that eating disorders are a female diagnosis (Harvey & Robinson, 2003). The inclusion of criteria that only pertain to women, such as an individual must experience the absence of at least three consecutive menstrual cycles, can influence a clinician's view in relation to diagnosis. Though the DSM-IV-TR indicates that this requirement is only applicable to women, these criteria can potentially exacerbate the perception that eating disorders are purely female diagnoses. The eating disorder diagnoses found in the DSM-IV-TR neglect the phenomenon found in men of reverse anorexia, a desire in men to be lean and muscular (Harvey & Robinson). This lack of acknowledgement in the DSM-IV-TR makes it difficult for clinicians to see reverse anorexia behaviors as maladjusted, and in turn clinicians may be under-diagnosing eating pathology within the male population.

The best known measures used to assess eating pathology symptoms, such as the Eating Attitudes Test (EAT-26; Garner, Olmsted, & Garfinkel, 1982) and the Eating Disorder Inventory-Second Edition (EDI-2; Garner, 1991) have been validated on a primarily female population. It is unclear if men were included in the validation studies of the well-known manualized treatments that have been developed for the treatment of eating disorders (Whittal, Agras, & Gould, 1999). Without doubt, men are a forgotten population in the area of eating disorders. The research, treatment and assessment focus on women has left clinicians with little information to treat or conceptualize men

presenting with eating pathology. There is truly a need to expand the view of eating pathology research to encompass the male population.

Eating Pathology in the Male Population

The limited eating pathology research that is available on men has been focused on providing evidence of eating pathology within the male population. Several studies, both clinically and community-based, have been conducted, indicating that a small percentage of men do experience eating disorder symptoms. Carlat and Camargo (1991) performed an extensive search of the literature to gain information on bulimia in men. These researchers hoped to gain information on the community distribution of bulimia and to identify characteristics that distinguish male bulimics from female bulimics. Using Medline (a search engine for medically oriented research articles), the researchers searched the period 1966-1990 to identify studies that included data on bulimia in men. The researchers found eighteen studies from the years 1981-1990 that reported community-based prevalence data for men with bulimia. The studies included data for both male and female community samples, but the majority were college-based samples. The male participants ranged in age from 15-38. All but one study relied on self-report measures to assess for eating pathology. The one study that did not utilize a self-report measure incorporated a two stage design: a screening questionnaire and follow-up interview of potential bulimics to help with diagnosis. Carlat and Carmango found that men comprised 10-15% of the community-based bulimic population. The researchers indicated that bulimic men typically have a later age of onset, greater rates of premorbid obesity, were at increased risk of developing bulimia if they participated in a sport that emphasized body weight, and were more likely to engage in drug and alcohol abuse. Lastly, Carlat and Carmango found strong evidence that there is a higher prevalence of homosexuality in male bulimics than there is in the female bulimic population. Although

these studies are dated, they still provided evidence of eating pathology in community-based samples of men, and therefore are relevant.

Lucas, Beard, Kruland, and O'Fallon (1991) focused their research on anorexia nervosa. They conducted a population-based study to gain information on the prevalence of anorexia nervosa. The researchers utilized the medical records of the Rochester, Minnesota area. They gained access to files from the Mayo Clinic and files of other health-care providers in the surrounding geographic area. The researchers screened the files for 30 different diagnostic terms they considered to fit the symptoms of an anorexia nervosa diagnosis; examples of terms were amenorrhea, oligomenorrhea, starvation and weight loss from any cause, and anorexia nervosa. Once individuals were identified with these diagnoses they were then compared to the criteria of anorexia nervosa from the Diagnostic and Statistical Manual-III-R (APA, 1987). From their review, the researchers identified 166 women and 15 men over a 50 year period that fit the criteria of the anorexia nervosa diagnosis. Lucas et al. found that approximately 10% of the individuals fitting the criteria of anorexia nervosa were male.

More recently, O'Dea and Abraham (2002) conducted a study in which they gave ninety-three male college students the computerized Eating and Exercise Examination (EEE-C. Abraham & Lovell, 1998). The EEE-C is a self-report, computer-generated examination of eating and exercise behaviors, attitudes, and feelings that can be used with clinical and community groups. The EEE-C has been validated against the EDI-2 (Garner, 1991) subscales of drive for thinness, bulimia, body dissatisfaction, and interoceptive awareness, the EAT-26 (Garner et al., 1982), and several other measures of eating pathology and depression. Using the EEE-C, O'Dea and Abraham found that 20% of the male participants exhibited characteristics of eating disorders. The participants endorsed significant concerns about their weight and shape and regularly implemented restrictive eating behaviors, such as limiting food intake and following specific rules about eating. Approximately, 33 % of the men that participated in the study were found

to have significant exercise concerns. Men with significant exercise concerns reported that they exercised at least five times a week and would exercise even if they were ill or injured. Overall, the researchers found that the male participants they studied did not differ from a comparable group of female students in eating attitudes, under eating, and overeating behaviors or psychological feelings.

Eating pathology has also been found to exist in military men. The military requires strict adherence to weight and fitness standards. The strict adherence to weight and fitness standards could create an environment that is conducive to the development of eating pathology. McNulty (1997) developed a study to assess eating disorder symptoms in the active military population. The researcher sent out 4800 surveys to active duty naval men and 1425 men completed the survey. McNulty found that 6.8% of the men met criteria for bulimia nervosa, 2.5% of the men met criteria for anorexia nervosa, and 40.8 % of the men met criteria for eating disorder not otherwise specified. To determine the effects of the rigid standards of weight and fitness found in the military as an instigator of eating pathology, McNulty asked respondents about eating behavior previous to entering active duty. McNulty found that 11.6% of the men reported entering active duty with a pre-existing condition of anorexia nervosa or bulimia nervosa. McNulty inquired about purging behavior in reference to use during "standards" versus current use. During "standards" 15% reported using water pills, 15% reported vomiting, 30% reported fasting, 14.9% reported use of diet pills, and 14.4% reported use of laxatives. In comparison to use during "standards," the researcher inquired about current use of purging behaviors. At the time of the survey, 2.1% reported use of water pills, 3.7% reported vomiting, 14.7% reported fasting, 3.5% reported use of diet pills, and 3.4% reported use of laxatives. Overall, McNulty determined that active duty military men engaged in ineffective or harmful weight control techniques when trying to lose weight.

There is also research to support the fact that eating pathology is increasing in men. Evidence indicates that men and women do not differ significantly on measures of

eating disturbance and shape concern, suggesting that men may not be immune to the eating disturbance that women experience (Tanofsky et al., 1997; O'Dea & Abraham, 2002). Bran et al. (1996) conducted a study within a treatment clinic that collected data on the number of women versus men presenting with eating disorder diagnoses from 1984-1996. Data were collected on 710 women and 51 men. The men and women were compared on the EDI-2 (Garner, 1991), Beck Depression Inventory (Beck, 1984), and Dutch Eating Behavior Restraint Scale (van Strien, Frijters, van Staveren, Defares, & Deurenberg, 1986). Men and women were compared on eating disorder diagnosis, age at admission, age of onset, and duration of illness. The researchers found that the proportion of men admitted to the eating disorder unit increased during the period between 1984 and 1997. The regression across years was found to be significant ($r = .96$, $P < .009$). Men were also found to have a significantly later onset of 20.56 years old compared to women of 17.15 years old.

The above mentioned research supports the fact that men are experiencing symptoms of eating disorders. Not only has evidence been found to support the fact that men are experiencing symptoms of eating disorders, but it also suggests that the number of men seeking treatment for eating disorders is increasing. Though the research is limited, it provides strong evidence that eating disorder research should broaden its scope and research the variety of variables that are impacting men related to eating pathology.

Gay Men and Eating Disturbances

The research that has been conducted with men and eating disorders has revealed that gay men are at greater risk for eating pathology than heterosexual men. Gay men tend to report greater eating pathology, body dissatisfaction, and body image concerns than heterosexual men (Feldman & Meyer, 2007; French, Story., Ramafedi, Resnick, & Blum, 1996; Gettleman & Thompson, 1993; Lakkis, Ricciardelli, & Williams, 1999; Russell & Keel, 2002; Schneider, O'Leary, & Jenkins, 1995; Siever, 1994). Gay men

have been found to present with eating pathology in larger numbers than what would be expected in comparison to national demographic numbers. After a review of literature studying sexual behavior researchers found that gay men comprise 3-5% of the national population (Seidman & Rieder, 1994). Gay men are documented to present with eating pathology at the rate of 25-30% in the clinical population (Fitcher and Daser, 1987; Herzog, Newman & Warshaw, 1991; Schneider and Agras, 1987). Research has also demonstrated that community-based samples of gay men report greater eating disturbances than heterosexual men. Schneider et al., (1995) sought to go beyond the clinical population and began to research eating disorders in gay men by utilizing community based samples. They hoped to identify if the trends that were found in the clinical population were also found in the general population. Schneider et al. randomly selected 2,000 subjects from a large employer in their area. Of the 2,000 questionnaires sent out, the researchers received 471 surveys from heterosexual women, 25 surveys from lesbians, 208 surveys from heterosexual men, 50 surveys from gay men, and 18 from bisexual individuals. The subject pool was decreased to run statistical analyses so that the heterosexual male and female populations would match the lesbian and gay male populations. The measures utilized included a questionnaire developed by the researchers that gathered information on demographics and background information on subjects' histories of weight control and eating disorders and assessed bulimic symptoms. The Restraint and Disinhibition scales of the Three Factor Eating Questionnaire to Measure Dietary Restraint, Disinhibition, and Hunger (Stunkard & Messick, 1985) were used to measure the cognitive restraint of eating and tendency toward disinhibition of eating controls. The researchers found that gay men were more likely to binge eat, lack control when eating, engage in weight control activities, feel terrified of fat, and be over concerned with their body shape in comparison to heterosexual men.

Gettelman and Thompson (1993) conducted a study comparing 32 gay men, 32 lesbians , 32 heterosexual men, and 32 heterosexual women on measures of body image

disturbance and concerns with weight and dieting. The researchers utilized three different measures: the Eating Disorder Inventory (EDI; Garner, Olmstead, & Polivy, 1983), Rosenberg Self-Esteem Inventory (RSI; Rosenberg, 1965), and the Multidimensional Body-Self Relations Questionnaire (MBSRQ; Brown, Cash, & Mikulka, 1990). The researchers used three subscales of the MBSRQ, Appearance Evaluation, Appearance Orientation, and the Body Areas Satisfaction Scale, to measure concerns with body image. Through the use of ANOVA, the researchers found that gay men reported greater eating disturbances than heterosexual men.

Feldman and Meyer (2007) conducted a study examining population prevalence rates of eating disorders in the lesbian gay bisexual (LGB) community. The researchers were interested in attaining a community based sample and utilizing the World Health Organization's Composite International Diagnostic Interview which provides information for a DSM criteria based diagnosis instead of an assessment that suggest the presence of eating disorder symptoms. Feldman and Meyer's results indicate that when compared to heterosexual men, gay and bisexual men had a significantly higher prevalence of life-time full syndrome bulimia, subclinical bulimia, and any subclinical eating disorder.

The over-prevalence of gay men in the eating disorder clinical population, as well as the over-prevalence of gay men reporting eating disturbances in community-based studies, suggests that gay men are vulnerable to the development of eating pathology. Several vulnerability theories have been developed to help explain the over-prevalence of gay men in the clinical population. Research has provided support for several of the theories; however, it is still unclear whether all of the factors leading to increased vulnerability have been identified. The question still remains, why are gay men at greater risk for developing eating disorders?

Vulnerability Theories

Several theories have been developed in an attempt to explain the over-prevalence of gay men seeking treatment for eating disorders. Each theory has one to two studies that have been conducted to provide support for the key constructs found in the theory. Some studies provide very strong support for certain theories, whereas other studies provided limited support.

Sexual Objectification

One of the most prominent theories considers the constructs of sexual objectification and physical attractiveness. This theory states that gay men experience cultural pressure to be physically attractive due to the value that is placed on physical attractiveness in the gay male culture (Siever, 1994). The value placed on physical attractiveness in the gay male culture leads to body dissatisfaction in gay men. Several studies have concluded that emphasis on physical attractiveness in the gay male culture does lead to the vulnerability of gay men to experience body dissatisfaction and disordered eating behavior (Herzog et al., 1991; Sievers, 1994; Silberstein, Mishkind, Striegel-Moore, Timko, & Rodin, 1989). Silberstein et al. conducted a study with seventy-one gay men and seventy-one heterosexual men. The researchers compared the men on measures of body dissatisfaction, self-esteem, physical attractiveness, disordered eating, and reasons for exercise. The researchers found that gay men were more likely to be dissatisfied with their bodies. The researchers also found that gay men were more likely to feel that their appearance was central to their sense of self. In comparison to heterosexual men, gay men were more motivated to exercise because of their desire to be seen as attractive. Gay men that desired to be thinner were more likely to exhibit disordered eating symptoms. In contrast, heterosexual men that desired to be thinner did not exhibit disordered eating symptoms. The results of Silberstein et al.'s study provide evidence that physical attractiveness is an important factor related to eating pathology.

Herzog et al. (1991) also considered the factor of physical attractiveness related to the development of eating pathology in gay men. Hezog et al. asked heterosexual and gay men to look at drawings of body types that represented very thin to very heavy physiques. The men were asked to select their current and ideal figures, the weight they felt would be most attractive to a potential partner, and the weight to which they would be most attracted in a potential partner. The researchers found that gay men were slightly more likely to choose a smaller ideal figure than heterosexual men.

Siever's (1994) study on sociocultural influences on body dissatisfaction and eating disorders is a prominent study related to the physical attractiveness theory. Siever compared lesbians, gay men, heterosexual women, and heterosexual men on measures of eating pathology and sexual objectification. To measure physical attractiveness, Siever used the Body Esteem Scale (Franzoi & Shields, 1984) that had been modified to measure how important specific body parts were in the evaluation of a partner's physical attractiveness and of a partner's evaluation of the subject's physical attractiveness. Siever developed the Physical Attractiveness Questionnaire (Siever, 1994) which consisted of five items that measured physical attractiveness and appearance. Eating pathology was measured by the EAT-26 (Garner et al., 1982) and the EDI (Garner, Olmstead, & Polivy, 1983). Siever found that gay men, in comparison to heterosexual men and lesbian women, were more likely to have higher scores on the EAT-26 and the EDI. Gay men were also more likely to perceive their bodies as sex objects. The high levels of eating pathology and feeling of sexual objectification in the gay male subjects led Siever to conclude that sexual objectification was a vulnerability factor in the development of eating disorders in gay men.

Gender Roles

A second theory has been developed to explain the difference in eating pathology between heterosexual men and gay men through differences in levels of masculinity and

femininity (Meyer, Blissett, and Oldfield, 2001). This theory was derived from research indicating that heterosexual women and men with high identification with feminine traits were more likely to have disordered eating. It is thought that perhaps gay men are experiencing higher levels of femininity, which could place them at risk for developing eating disorders. In order to reduce the emotional discomfort, gay men develop eating pathology (Harvey & Robinson, 2003). Meyer, Blissett, and Oldfield (2001) conducted a comparison study on gender roles that included gay men. Through the use of the EAT-26 (Garner et al., 1982) and the Bem Sex Role Inventory (BSRI; Bem, 1974), the researchers found a negative correlation between masculinity and bulimia scores and a positive correlation between femininity and oral control scores for the gay men in the study. They concluded that gay men who hold relatively feminine attributes are more likely to restrict eating and those with lower masculine attributes are more likely to have higher bulimic tendencies, indicating that high masculinity attributes are a protective factor in the development of eating pathology. However, gender role theory has questioned this finding. Russell and Keel (2002) conducted a study comparing heterosexual and gay men on the EAT-26 (Garner et al., 1982) and the BSRI (Bem, 1974). Russell and Keel (2002) found that gay men did not report higher levels of femininity relative to heterosexual men and that femininity did not correlate significantly with measures of eating pathology in either group of men. The gender role research results related suggest that it is unclear as to the impact of gender roles on the development of eating pathology in gay men.

Internalized Homonegativity.

It has been suggested that internalized homonegativity influences the development of eating disorders in gay men (Williamson, 1999). Internalized homonegativity is a newer, promising theory. Internalized homonegativity occurs when gay, lesbian, or bisexual individuals internalize the negative attitudes and beliefs of the

dominant western society that are directed towards members of the gay, lesbian, and bisexual (GLB) community (Reynolds & Hanjorgiris, 2000). Internalized homonegativity has been linked to other mental health issues such as suicide, depression and shame (Allen & Oleson, 1999). Williamson and Hartley (1998) conducted a study with 41 gay British men and 47 heterosexual British men. The participants completed the EAT-26 (Garner et al., 1982), Body Satisfaction Scale (Slade, Dewey, Newton, Brodie, & Kiemle, 1990), and nine body-line drawings ranging from very thin to very obese (Fallon & Rozin 1985; Stunkard, Sorenson, & Schlusinger,1982). The researchers' correlational data indicated that self-esteem, body dissatisfaction and eating disturbances were interrelated. Russell & Keel (2002) also found evidence to support the fact that low self-esteem and discomfort with sexual orientation were connected to body dissatisfaction, and disordered eating in gay men.

Russell and Keel (2002) had 68 heterosexual men and 58 gay men complete the BDI (Beck, 1984), Rosenberg Self-Esteem Inventory (RSI; Rosenberg, 1965), BSRI (Bem, 1974), EAT-26 (Garner et al., 1982), Bulimia Test-Revised (BULIT-R; Thelen, Farmer, Wonderlich, & Smith, 1991), and the Body Shape Questionnaire (Cooper, Taylor, Cooper, & Fairburn, 1987). When compared to heterosexual men, gay men were more likely to experience greater body dissatisfaction and higher levels of bulimic and anorexic symptoms. Gay men reported higher depression, lower self-esteem, and less comfort with their sexual orientation.

More recently, Kimmel and Mahalik (2005) performed a study measuring the impact of minority stress factors, such as internalized homonegativity, on body image dissatisfaction. Kimmel and Mahalik conducted a web-based survey using the Internalized Homophobia Scale (IHP; Martin & Dean, 1987) to measure internalized homonegativity, the Body Image Ideals Questionnaire (BIQ; Cash & Szymanski, 1995) to measure body image satisfaction, and the Masculine Body Ideal Distress Scale (MBIDS; Kimmel & Mahalik, 2004) to measure the amount of distress one associates

with failing to meet the ideal of having a muscular masculine body. They were able to obtain 357 gay men to participate in their study. The results from the study indicated that minority stress factors such as internalized homo-negativity were significantly associated with body image dissatisfaction and masculine body ideal distress.

Along with the results from Williamson and Hartly (1998) and Russell and Keel (2002), these results indicate that internalized homophobia is a factor that should be considered in the etiology of eating pathology in gay men.

Attitudes Towards Help-Seeking

Researchers have theorized that the higher prevalence of gay men with eating disorders is not only due to the fact that they are at greater risk, but that they are also more likely to seek help. Results from community-based studies have not been able to clarify whether the prevalence of gay men with eating pathology and body dissatisfaction is actually higher than the prevalence of heterosexual men with eating pathology and body dissatisfaction. Several community-based studies have found a higher prevalence of gay men with eating pathology and body dissatisfaction in comparison to heterosexual men (French et al., 1996; Gettleman and Thompson, 1993; Lakkis et al., 1999; Russell & Keel, 2002; Schneider et al., 1995; Siever, 1994). However, there have also been community-based studies that have shown equivalence in eating pathology and body dissatisfaction between the gay and heterosexual male populations. Olivardia, Pope, Mangweth, and Hudson (1995) using the EDI (Garner, 1991) and EAT-26 (Garner et al., 1982) did not find a significant difference between a community-based sample of gay and heterosexual men in eating pathology. Hausmann, Mangweth, Walch, Rupp, and Pope (2004) conducted a study examining body dissatisfaction through a computer-based program called the somatomorphic matrix. The somatomorphic matrix allows participants to "morph" a virtual male body into 10 levels of fat and 10 levels of muscularity. Each participant was asked to choose the images that he thought best

represented (1) his own body, (2) the body he ideally would like to have, (3) the body of an average man of his age, and (4) the body most appealing to other gay men. Hausmann et al. found that gay men showed no significant difference when compared to heterosexual men on all of the body-image indices. The ideal body type that the gay men chose was essentially identical to the ideal body type chosen by the heterosexual men. Herzog et al. (1991) compared non-clinical heterosexual and gay men on a measure that consisted of 12 figure drawings ranging from very thin to very fat. They asked the participants to identify their perceived and ideal body shape using the 12 figure drawings. They did not find significant differences between the heterosexual and gay men on ideal body shape.

Though there is inconclusive evidence on the rates of eating disturbances and body images in gay versus heterosexual male community based samples, gay men are more likely to seek treatment for eating disorders than heterosexual men (Herzog et al., 1984; Fitcher & Daser, 1987; Schneider & Agras, 1987). A possible explanation for the over-prevalence of gay men in the clinical population is that gay men are more likely to seek treatment than heterosexual men. Several studies have provided evidence that men are less likely to seek treatment for eating disorders than women. Olivardia et al. (1995) and Braun et al. (1999) have found that, in general, men are less likely than women to seek treatment for eating disorders. Braun et al. found that 16% of men sought treatment in comparison to 52% of women. Braun et al. found that the proportion of men with eating disorders identified in a clinic based sample was substantially smaller than the proportion identified in community based samples, suggesting that men are not seeking treatment for eating pathology. Furthermore, O' Dea and Abraham (2002) found that several men in their sample were experiencing eating disordered behavior, but not one of the men had sought help.

Not only are men less likely to seek treatment for mental health issues, but heterosexual men are even less likely than gay men to seek treatment for mental health

issues. Cochran and May (2000) found in a national survey that both men and women who engage in same gender sex partners were more likely to have sought mental health services than heterosexual men and women. Cochran, Sullivan, and Mays (2003) in another national survey found that middle aged men who identified as gay-bisexual were more likely to seek mental health treatment than heterosexual men. The researchers controlled for HIV or AIDS treatment and still found a significant difference between the mental health treatment sought by gay-bisexual men and heterosexual men. Research indicating that gay men are more likely to seek mental health treatment provides further support for the theory that gay men are presenting at a higher rate for the treatment of eating disorders for reasons other than having vulnerability for the development of an eating disorder.

Influence of Psycho-Education

Another possible reason for the over-prevalence of gay men in the clinical population may be related to symptom recognition. Gay men may be more likely to correctly recognize the symptoms of eating pathology. Symptom recognition may be more difficult for heterosexual men due to differences in eating pathology presentation between gay and heterosexual men. Heterosexual men may emphasize muscle dysmorphia or reverse anorexia (Harvey & Robinson, 2003). Muscle dysmorphia emphasizes physical exercise and weight lifting instead of forms of purging like starvation or vomiting. Gay men have a tendency to attain high scores on the majority of the subscales of the current eating pathology measures, which include Drive for Thinness, Oral Control, Dieting, Bulimia and Food Preoccupation (Gettelman & Thompson, 1993; Yager, Kurtzman, Landsverk, & Wiesmer, 1988). Heterosexual men have demonstrated elevated scores on scales related to excessive exercise, providing further evidence of the emphasis in heterosexual male culture on physical exercise (Lewinsohn, Seely, Moerk, & Striegel-Moore, 2002). The DSM-IV-TR (APA, 2000) does not adequately address

mens' presentation with muscle dysmorphia which has allowed for society to consider the male desire for the perfect "V" shaped upper body as acceptable even if it means attaining it through unhealthy methods. In addition, eating disorders have been stereotyped as female disorders. The stigma of eating disorders may lead heterosexual men to not consider eating disorders as a proper diagnosis.

Media Exposure

Limited research has examined the relationship between media exposure and eating disorder symptomatology in men (Leit, Gray, & Pope, 2002; Morry & Staska, 2001). An even smaller amount has examined the relationship between media exposure and eating disorder symptomatology in gay men. Duggan & McCreary (2004) conducted a study that focused on the influence of media images on body image, eating disorder symptoms, and drive for muscularity in both gay and heterosexual men. The researcher's study was correlational, examining whether or not there were links between media exposure and body dissatisfaction. Significant differences between gay and heterosexual men were not analyzed. The study's results suggest that increased exposure to media, in particular muscle and fitness magazines, is related to decreased body satisfaction regardless of sexual orientation. The few studies that have examined the connection between media exposure and eating disorder symptoms provide support that media exposure is a direction that needs further research.

Summary of Theories

Gay men are diagnosed with eating disorders at a greater rate than heterosexual men. It is unclear why this difference exists. Researchers have identified several different theories that may contribute to gay men having a greater vulnerability to the development of eating pathology: internalized homonegativity, sexual objectification, and gender roles. Yet, research also indicates that other factors besides vulnerability may play a role in the greater number of gay men in comparison to heterosexual men

diagnosed with eating pathology. Factors such as attitudes towards help seeking and recognition of eating disorder symptoms may lead to a greater number of diagnoses and those seeking treatment for eating disorders in the gay community.

Because of the uncertainty about how to best explain these issues, the present study was undertaken to examine the general issue of gay men and eating disorders. More specifically, this study sought to be an exploratory study to investigate vulnerability factors and to examine other factors beside vulnerabilities that could be impacting the prevalence of gay men seeking treatment.

The following research questions were addressed in this study:

1. Are gay participants more likely to have positive attitudes towards help-seeking then heterosexual men?
2. Are gay men more likely than heterosexual men to seek treatment if they perceive themselves to have eating pathology?
3. Are gay men better than heterosexual men in identifying symptoms of eating disorders?
4. Is there a significant difference between scores on eating disorder measures between gay men and heterosexual men?
5. Is there a significant difference between scores of gender conflict between gay men and heterosexual men?
6. Is gender role conflict connected to eating disorder symptoms?
7. Is media exposure connected to symptom recognition?
8. Is media exposure connected to the eating disorder symptoms?

CHAPTER 2

METHDOLOGY

Participants and Procedures

The sample for this study consisted of 161 participants. The sample was recruited through the use of two different strategies. The first group of participants was recruited through the use of zoomerang.com. Zoomerang.com is a survey website that has a ready made sample pool gathered from across the United States. Zoomerang.com recruits participants by offering them points for every survey they complete. The sample is typically utilized for marketing research; however this is primarily due to the cost involved to utilize the sample. Zoomerang.com is able to target a desired sample. It was hoped that the total number of participants needed for this study could be gathered through the Zoomerang.com, however it was not possible to gather the total number of gay men needed for the study. Only half of the necessary gay participants were recruited by utilizing Zoomerang.com. The total number of heterosexual men needed was achieved through the Zoomerang.com sample. The second recruitment strategy was needed to attain the necessary number of gay participants. The second strategy recruited from gay, lesbian, bisexual, and transgender (GLBT) cooperating community, campus, and nationwide groups through email. The presidents of the groups were contacted and were asked to participate. From the second recruitment strategy the necessary number of gay participants was attained and additional heterosexual participants were recruited. The participants for this study filled out the Eating Disorder Examination Questionnaire (Fairburn, C.G. & Beglin, S.J., 1994), Attitudes Towards Seeking Professional Psychological Help (Fischer & Farina, 1995), Gender Role Conflict Scale (O'Neil et al., 1986) and demographic questionnaire. In addition, the participants were asked to read vignettes and answer questions related to the vignettes about help seeking behavior and severity of behavior.

Instrumentation

Eating Disorder Examination Questionnaire

The Eating Disorder Examination Questionnaire (EDE-Q) is a self-report version of the Eating Disorder Examination, an investigator-based interview (Fairburn and Cooper, 1993). The EDE-Q consists of 41 questions that provide two types of data. First, the EDE-Q provides frequency data on key behavioral features of eating disorders in terms of number of episodes of the behavior and the number of days the behavior has occurred. The second form of data the EDE-Q provides are four subscale scores reflecting the severity of differing aspects of eating disorders. The four subscales are Restraint, Eating Concerns, Shape Concern and Weight Concern. The EDE-Q also provides a global score. For the purposes of this study the global score was utilized in the statistical analysis. Utilizing a community-based sample of females, Fairburn & Cooper (1993) found average global score of 1.554 and a standard deviation of 1.213. The EDE-Q subscale reliabilities have shown internal consistency with Cronbach's alpha that range from .85-.92 (Luce & Crowther, 1999). Two week test-retest reliabilities (n=139) have ranged from .81-.94 (Luce & Crowther, 1999).

Gender Role Conflict Scale

The Gender Role Conflict Scale-I (GRCS) is a self-report measure designed to assess personal dimensions of gender-role patterns. The measure consists of 37 questions on a 6-point Likert-type scale ranging from Strongly Agree to Strongly Disagree. The 37 questions inquire about participant's personal gender-role attitudes, behaviors, and conflicts. Examples of items on the GRCS are "Expressing feelings makes me feel open to attack by other people" and "Moving up the career ladder is important to me". A high score reflects an expression of gender-role conflict. The GRCS is divided into four factors and also provides a total score. The four factors are: 1) Success, Power, and Competition; 2) Restrictive Emotionality; 3)Restrictive Affectionate Behavior Between

Men; and 4) Conflicts Between Work and Family Relations. The subscale scores range from 1-6, with a higher number indicating a higher level of gender-role conflict. For the purposes of this study the total score was used in the statistical analysis. The total score can range from 37 to 222. The GRCS subscale reliabilities have shown internal consistency with Cronbach's alpha that range from .75-.85 (O'Neil et al., 1986). Four week test-retest reliabilities (n = 14) have ranged from .72-86 (O'Neil et al., 1986).

Attitudes Towards Help Seeking

The Attitudes Toward Seeking Professional Psychological Help: A Shortened Form (Fischer & Farina, 1995) scale measures attitudes toward seeking professional help for psychological problems. The scale is a unidimensional measure of help-seeking attitudes. The measure consists of 10 items such as "If I believed I was having a mental breakdown, my first inclination would be to get professional attention" and "The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts". The items are scored on a 4-point Likert scale ranging from Agree to Disagree. Total scores range from 0 to 30. Higher scores on the scale indicate positive attitudes toward seeking psychological help.

The ten-item version of the Attitudes Toward Help Seeking Professional Psychological Help: A Shortened Form (Fischer & Farina, 1995) was derived from the original version of the Attitudes Toward Help Seeking Professional Psychological Help: A Shortened Form (Fischer & Turner, 1970), which consisted of 40 items. The 10-item form of the Attitudes Toward Seeking Professional Psychological Help: A Shortened Form was validated on college-aged students, both male and female. The correlation between scores from the new and the old versions of the Attitudes Toward Seeking Professional Psychological Help was .87 (N=62). The correlation between having sought help or not and the subject's scale score was .39 ($p < .0001$) overall, .24 ($p < .03$) for women, and .49 ($p < .0001$) for men. The total mean score was found to be M=17.45,

SD=5.97 and for men the mean score was found to be M=15.46 (SD=6.00; n=175) (Fischer & Farina, 1995). The test-retest correlation with a 1-month interval between tests was .80.

Media Exposure

Items that measured media exposure were adopted from a study conducted by Schooler and Ward (2006). Some changes were made to Schooler and Ward's items, in particular Schooler and Ward were interested in measuring time spent viewing prime-time television and music videos. The current study inquired about all television viewing throughout a given week. Television viewing was broken down into different time slot categories in order to help the participant better judge their viewing time (i.e. how much time is spent watching television on weekday evenings from 5 – 11 p.m.). A total number of television viewing hours was calculated for a weeks worth of television viewing. The calculated total number of television viewing hours was utilized for the statistical analysis. Magazine reading was also measured. The participants were asked how many issues they read in a given year of certain genres of magazines (fitness magazines, sports magazines, contemporary men's magazines, pornographic magazines, LGBT magazines). The total number of issues read was calculated by adding the number issues read across all genres. The total number of issues read was utilized for the statistical analysis.

Demographic Information (See Appendix A)

Standard demographic information was asked such as age, sex, race, geographic location and sexual orientation.

Vignettes (See Appendix B)

In order to acquire a better understanding of how gay and heterosexual men perceive eating pathology symptoms and to better understand help-seeking behavior in

gay and heterosexual men, vignettes were utilized. Five vignettes were developed that described varying types of eating pathology with a focus on male characters. Four vignettes were designed to describe men that can be diagnosed through DSM-IV criteria with an eating disorder. One vignette was developed that describes an individual that has mild disordered eating symptoms; this vignette served as a control and also as a baseline. Once the vignettes were developed they were given to three expert clinicians and/ or researchers with experience either working with eating disorders or researching eating disorders. The experts were asked to evaluate the accuracy of the representations of eating disorders in men, and the severity of the individual in the vignette, and to recommend changes to the vignettes. The experts recommended changes to the vignettes so that the vignettes would easily match diagnostic criteria. The revised vignettes as well as the original vignettes are included in Appendix D.

Subjects were asked to read the vignettes and answer four questions in reference to each vignette. The first question asked the subject to rate on a 6-point Likert scale how problematic the behavior was described in the vignette. A higher score indicated a greater level of problematic behavior. The second question asked the subject to rate on a 6-point Likert scale to what degree did the subject believe that this particular person should seek psychological help. A higher score indicated a greater belief that the character in the vignette should seek help. The third question asked how likely the subject believed that this person would seek psychological help on a 6-point Likert scale. A higher score indicates a greater belief that the character in the vignette will seek help. The fourth question asked how likely the subject would be to seek psychological help if the subject were this person and had the same feelings and behaviors as the person in the story. A higher score indicates a greater likelihood that the participant would seek help if they were experiencing similar symptoms. For each of the clinical vignettes, the four separate questions were summed and averaged for each participant (i.e. each of the scores

for the symptom recognition questions, across the four clinical vignettes, were summed and averaged per participant).

The research questions were as follows:

1) Are gay participants more likely to have positive attitudes towards help-seeking then heterosexual men? Gay men were compared heterosexual men on the Attitudes Towards Help-Seeking Scale.

2) Are gay men more likely than heterosexual men to seek treatment if they perceive themselves to have eating pathology? The vignettes were used to ask the participant to see himself at varying levels of eating symptomatology and then follow-up with a question about whether the participant would seek treatment if he were to experience those same symptoms. Gay men were compared to heterosexual men related to whether they would seek treatment based upon the vignette descriptions.

3) Are gay men better than heterosexual men in identifying symptoms of eating disorders? The vignettes were used to provide participants with varying levels of symptomatology. The participants were asked to rank the severity of the symptoms portrayed in the vignettes. Gay men were compared to heterosexual men in their ranking of symptom severity.

4) Is there a significant difference between scores on eating pathology measures between gay men and heterosexual men? Gay and heterosexual men were compared using the EDE-Q

5) Is there a significant difference between scores of gender conflict between gay men and heterosexual men? Gay and heterosexual men were compared using the GRCS.

6) Is gender role conflict connected to eating pathology? A correlation was run between the GRCS-I and the EDE-Q.

7) Is media exposure connected to symptom recognition?

8) Is media exposure connected to eating pathology?

A MANOVA was used to answer questions 1-5. A correlation was used for question 6, 7 and 8.

Analysis

The independent variable of interest in this study was the variable of sexual orientation, heterosexual vs. gay men. The dependent variables included the following: 1) participants attitudes towards help-seeking, as measured by the Attitudes Toward Help-Seeking Scale, 2) questions pertaining to help seeking related to vignettes, 3) eating pathology measured by the EDE-Q, 4) levels of masculinity measured by the GRCS, and 5) recognition of eating pathology symptoms measured by a question asked related to vignettes. Due to the single independent variable and the relationship between the five dependent variables, a MANOVA was used to identify significant differences in the dependent variables. Follow-up ANOVA's were used to further clarify differences in dependent variables.

CHAPTER 3

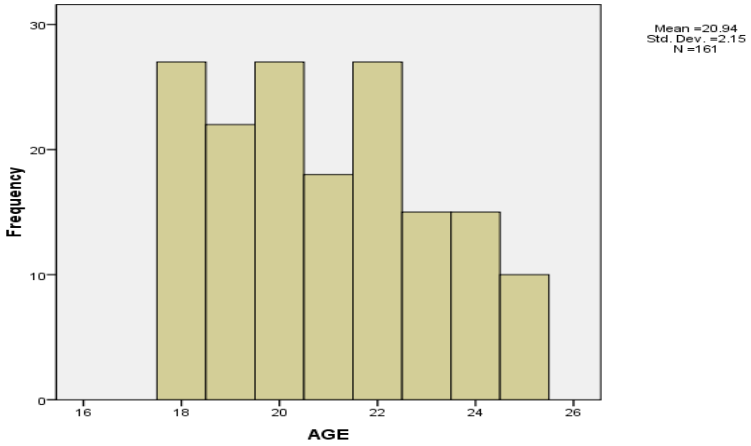
RESULTS

Participant Characteristics

Both survey formats yielded a total of 190 participants. Of these, 161 participants were included in the analyses. Twenty-nine participants were excluded for having more than one omission in their survey responses. Sexual orientation was identified utilizing the Kinsey Scale (Kinsey et al, 1948). The Kinsey Scale is a seven point scale that ranges from 6 to 0, with 6 indicating Exclusively Homosexual, 3 indicating Equally Heterosexual and Homosexual, and 0 indicating Exclusively Heterosexual. The Kinsey Scale was developed to take into account the fact that sexuality is not dichotomous. Seventy-five participants identified themselves as a 6, 5, or 4 on the Kinsey scale placing them in the category of homosexual. Eighty-six participants identified themselves as a 0, 1, or 2 on the Kinsey scale placing them in the category of heterosexual. The average age of the 161 participants was 20.94 (SD=2.15), with an age range of 18-25. Figure 1 shows the distribution of participants per each age.

Figure 1

Age Distribution of Sample



Participants reported living throughout the country. Table 1 shows the geographic and type of area where the participants were living. The participants were well distributed across the United States and across the types of area they resided. The Midwest contained the largest percentage of participants, with 34.8 % (n = 56).

Table 1

Geographic Location of Sample

	N	%
East Coast Campus Town	13	8.1
East Coast Rural	3	1.9
East Coast -Town City	22	13.7
East Coast-Major	4	2.5
West Coast Campus Town	8	5.0
West Coast Rural	1	.6
West Coast Town/City	14	9
West Coast Major	4	2.5
Midwest Campus Town	19	11.8
Midwest Rural	8	5.0
Midwest Town/City	22	13.7
Midwest Major Metropolis	7	4.3
Southern Campus Town	8	5.0
Southern Rural	1	.6
Southern Town City	16	9.9
Southern Major Metropolis	11	6.8

Table 2 shows the participants' racial/ethnic self-identification. The majority of the participants identified as Caucasian (n = 115, 71.4%). Nineteen of the participants (11.8%) identified as Hispanic, 14 (8.7 %) identified as Asian American, 9 (5.6 %) identified as African American, 1 (.6 %) identified as American Indian, and 3 (1.9 %) identified as Other.

Table 2

Racial/Ethnic Background of Sample

	n	%
African American	9	5.6
Asian American	14	8.7
Hispanic	19	11.8
Caucasian	115	71.4
American Indian	1	.6
Other	3	1.9

Results of the Research Questions

Table 3 presents the means and standard deviations of the variables that were used to test the eight hypotheses. Table 3 includes the scores of the Gender Role Conflict Scale (GRCS), the Eating Disorder Examination Questionnaire (EDEQ), and the Attitudes Towards Help-Seeking Scale (ATHS). Also included in Table 3 are the means and standard deviations for the questions related to symptom recognition in the vignettes, the questions related to help seeking attitudes of the vignettes, total television watched and total magazine issues read. Across all variables, except Total Television watched, gay men had higher mean scores than heterosexual men.

Table 3

Means and Standard Deviations of Measures

		M	SD
Total GRCS	Gay	121.09	34.76
	Straight	116.10	32.46
	Total	118.43	33.53
Total EDEQ	Gay	1.99	1.29
	Straight	1.45	1.26
	Total	1.70	1.30
ATHS	Gay	16.64	5.65
	Straight	13.07	6.15
	Total	14.73	6.17
Symptom Vig.	Gay	4.89	.98
	Straight	4.26	1.01
	Total	4.55	1.04
Help Seeking	Gay	3.56	1.25
	Straight	3.07	1.26
	Total	3.29	1.28
Total Television	Gay	15.92	8.1
	Straight	19.38	7.83
	Total	17.87	8.11
Total Magazine	Gay	10.35	5.6
	Straight	9.24	4.92
	Total	9.73	5.26

The mean found for the EDEQ by Fairburn and Beglin (1994) was 1.554. This mean was established utilizing a female sample. The straight participants in this study averaged a lower score ($M_{STRAIGHT} = 1.45$) than the women in the Fairburn and Beglin study (1994), where as the gay men averaged a slightly higher score ($M_{GAY}=1.99$) than the participants in the Fairburn and Beglin study (1994). The EDEQ alpha for this study was .87. The means for the ATHS in current study vary from the means established by Fischer and Farina (1995). The mean for gay men is slightly higher ($M_{GAY} = 16.64$) than the mean found in Fischer and Farina study for men (M=15.46), where as the mean in the current study for straight men was found to be lower ($M_{STRAIGHT} = 13.07$). The alpha level for the ATHS in this study was .83. The vignettes were utilized for the first time in the current study. There is no previous research to compare the means found this study. However, it is important to remember that the vignettes are scored on a scale from 0-6.

The averages found in this study related to ratings of the vignette question suggest that on average the gay participants are answering the vignette questions .5 rating point higher than straight participants. The Total Television mean provide data on the amount of television participants which in a weeks time. The results for the gay men suggest that on average they are watching less television that the heterosexual participants. Gay men are watching on average 15.92 hours of television a week. The standard deviation suggests that the majority of the gay participants are watching 7.82 to 24 hours of television a week. Straight men are watching on average 19.38 hours of television a week. The standard deviation suggests that the majority of straight participants are watching between 11.55 to 27.21 hours of television a week. The Total Magazine Issues mean provides data on number of issues each participant reads in a given year. On average the gay participants are reading one more magazine issue in the span of a year (M_{GAY} = 10.35) compared to straight participants ($M_{STRAIGHT}$ = 9.24). The standard deviation suggest that the majority of gay participants are reading between 4.75 to 15.95 issues of magazines in a years time, where as the majority of straight participants are reading between 4.32-14.16.

Previous research that has utilized the GRCS, typically, present their results in the form of the four subscales that makeup the GRCS. Even though the subscales were not used for the analysis for the sake of comparing the results of this study to other studies the GRCS subscales are presented in Table 4. The subscale means for both straight and gay men are lower than the means found in Good and his colleagues (1996) cross national study of men (M_{SPC} = 3.94; M_{RE} = 3.59; M_{RABBM} = 3.83; and M_{CBWFR} = 3.80). Szymanski & Carr (2008) utilized the GRCS to study the impact gender role conflict has on psychological distress in gay men. The means for gay men in the current study are slightly lower than the mean found in Szymanski & Carr (2008) study. The Szymanski & Carr (2008) utilized three of the subscales in the GRCS (M_{SPC} = 3.62; M_{RE} = 3.07; M_{RABBM} = 2.64). The GRCS alpha level for the current study was .95.

Table 4

GRCS Subscales

		M Item Average	SD	M Szymanski & Carr (2008)
Success, Power, Competition	Straight	2.86	1.04	
	Gay	3.56	1.04	3.62
Restrictive Emotionality	Straight	3.43	1.16	
	Gay	3.17	1.10	3.07
Restrictive Affectionate Behavior Between Males	Straight	3.17	1.41	
	Gay	2.99	1.05	2.64
Conflict Between Work/Family	Straight	3.11	1.15	
	Gay	3.60	1.15	

Table 5 presents the Post Hoc results of the MANOVA for the GRCS, EDEQ, ATHS, Symptom Vignette, and the Help-Seeking Vignette. Examination of the MANOVA reveals that Box's Test of Equality of Covariance met the homoscedasticity assumption, in which there is equal variance and covariance across the variables of interest allowing the results of the MANOVA to be interpreted. Overall, the MANOVA indicated a significant difference was found between gay and heterosexual men ($F_{5, 155} = 7.879$, $p<.001$). Post hoc tests provide more details on the exact differences between gay and heterosexual men. Of the five variable included in the MANOVA, four were found to be significantly different. A significant difference was not found between gay

men and heterosexual men on the Gender Role Conflict Scale ($F = .886$, $p < .348$). A significant difference was found between gay and heterosexual men on the EDEQ ($F = 7.14$, $p<.05$). A significant difference was found between gay and heterosexual men on the ATHS ($F = 14.56$, $p<.001$). A significant difference was found between gay and heterosexual men on the Symptom Recognition question on the vignettes ($F = 15.42$, $p<.001$). A significant difference was also found between gay and heterosexual men on the Help-Seeking question on the vignettes, though the difference was not as strong as the difference found between the Symptom Recognition question ($F = 6.01$, $p< .05$).

Table 5

Follow-up ANOVA Results

	df	F	Sig
GRCS Total	1	.886	.348
EDEQ Total	1	7.14	.008
ATHS	1	14.56	.001
Symptom	1	15.43	.001
Help-Seeking	1	6.01	.05

Overall, the results from the MANOVA and the follow-up ANOVA tests suggest that gay men are not any more likely than heterosexual men to experience Gender Role Conflict. The post hoc tests suggest that gay men are more likely than heterosexual men to seek psychological help. Both the ATHS and the applied help-seeking questions related to eating pathology were found to be significantly different between the gay and heterosexual men, with gay men indicating a greater likelihood of seeking help. The results also suggest that gay men were more likely to indicate that they were experiencing a greater level of eating pathology. Finally, gay men were better able to recognize eating pathology. Gay men were found to be significantly different from heterosexual men in

their Symptom Recognition Vignette questions, they were more likely to report that the symptoms in the vignette were more severe than heterosexual men.

Due to the fact that the vignette questions were summed and averaged for each participant in the original MANOVA, two separate MANOVAs were run for the Symptom Recognition questions and for the Help-Seeking questions to verify that a significant difference was still found between gay and heterosexual men even when the vignette questions were tested as separate variables. Five vignettes were written, each containing a question about symptom recognition and a question about help-seeking. However, only four of the vignettes were used in the analysis due to the fifth vignette was designed to be a baseline vignette and did not describe a diagnosable case. On the first of the two separate MANOVAs, the independent variable was sexual orientation, and the dependent variables were the four symptom recognition questions. When all four of the symptom recognition questions were placed into a MANOVA a significant difference was still found between gay and heterosexual men ($F = 8.38$, $p<.001$). On the second of the two separate MANOVAs, the independent variable was sexual orientation and the dependent variables were the four help-seeking questions. When all four of the help-seeking questions were placed into a MANOVA a significant difference was still found between gay and heterosexual men ($F = 2.85$, $p<.001$). Overall, the both MANOVAs run on the vignette questions led to the same conclusions which were that gay men answered the vignette questions significantly different than heterosexual men.

Sexual Orientation and Help-Seeking

Research questions one and two examined the relationship of sexual orientation and help-seeking attitudes or behaviors. Research question one inquired about whether gay men were more likely to have positive attitudes towards seeking psychological help than heterosexual men. The Attitudes Towards Help-Seeking measure was utilized to determine if a difference existed between gay and heterosexual men on attitudes towards

help-seeking. The MANOVA and the post hoc tests reveal that there is a significant difference between gay and heterosexual men on attitudes towards seeking psychological help ($F = 14.56$, $P < .001$). On further investigation, the higher means for gay men on the ATHS (Table 3) suggest that gay men have more positive attitudes towards seeking psychological help that heterosexual men.

Research question two was a further extension of research question one. In hopes of examining gay and heterosexual men's attitudes towards seeking help within the realm of eating disorders, vignettes were developed describing diagnosable eating disorders. The participants were asked to place themselves in the same situation as that described in the vignettes and rate on a scale from 0-6 how likely they were to seek psychological help. Results from the MANOVA and the post hoc tests suggest that gay men are significantly different from heterosexual men related to their indication of seeking help for the symptoms described in the vignettes ($F = 6.01$, $p < .05$). The means found in Table 3 indicate that gay men are more likely to seek psychological help if they were experiencing the eating pathology described in the vignette.

Symptom Recognition

Research question three examined the relationship between sexual orientation and the ability to recognize symptoms of eating pathology. The vignettes and questions related to the severity of symptoms were used to determine the ability of participants to recognize symptoms of eating pathology. The MANOVA and the post hoc tests suggest that there is a significant difference between gay and heterosexual men related to the ability to recognize symptoms of eating pathology ($F = 15.43$, $p < .001$). Table 3 shows that the mean for gay men was 4.89 whereas for heterosexual men the mean was 4.26. On average gay men were more likely to score a vignette's severity level a half a point higher than a heterosexual man when utilizing a six point Likert scale. A higher score indicates an endorsement of greater symptom severity. The combination of the

MANOVA and the means suggest that gay men are more likely to recognize symptoms of eating pathology.

Sexual Orientation and Eating Pathology

Research question four examined the relationship between sexual orientation and the development of eating pathology. The Eating Disorder Examination Questionnaire-Total score was utilized to identify if a difference existed between gay and heterosexual men related to level of eating pathology. The MANOVA and the post hoc tests suggest that there is significant difference between gay and heterosexual men related to eating pathology ($F = 7.14$, $p < .008$). Upon examining the means for the EDEQ, evidence is provided that suggests that gay men are more likely to experience greater eating pathology when compared to heterosexual men. Table 3 shows that the mean for gay men was 1.99 whereas the mean for heterosexual men was 1.45. A larger number indicates greater endorsement of eating disorder symptoms. The EDEQ does not utilize cutoff scores to signify pathology. However, the community mean for the EDEQ has been found to be 1.554. Heterosexual men fall slightly below the community mean, whereas the mean score for gay men is above the community mean.

Sexual Orientation and Gender Role Conflict

Research question five examined the relationship between sexual orientation and gender role conflict. The Gender Role Conflict Scale was utilized to identify if any difference could be found between gay and heterosexual men. The results from the MANOVA and post hoc tests suggest that no significant difference was found between gay and heterosexual men on the GRCS ($F = .886$, $p = .348$). The results suggest that sexual orientation is not an indicator of increased gender role conflict.

Gender Role Conflict and Eating Pathology

Research question six examined the relationship between eating pathology and gender role conflict. A correlation was run between the Gender Role Conflict Scale and the Eating Disorder Examination Questionnaire. A significant relationship was not found between the GRCS and the EDEQ (r = .096, p< .05). Further statistical tests were run parsing out gay and heterosexual men. A significant relationship was not found between the GRCS and the EDEQ when the correlation was run with only the heterosexual participants (r = -.043, p < .05). A minimal correlation was found between the GRCS and the EDEQ when the correlation was run with just gay men (r = .251, p < .05). These results suggest that there is a slight trend within gay men that experiencing increased gender role conflict is linked to experiencing increased eating pathology. However, the results do not indicate that the same trend exists in heterosexual men.

Media Exposure and Symptom Recognition

Research question seven examined the relationship between media exposure and the ability to recognize eating disorder symptoms. Media exposure was divided into two different forms: television and magazines. Two correlations were run with the interest of investigating media exposure and symptom recognition. Table 6 describes results from the correlation. The first correlation was run between the symptom recognition vignette question and total television exposure. The correlation between the symptom recognition question and the magazine exposure was not significant (r = .000, p<.05). There was no significant relationship between exposure to magazines and the ability to recognize eating disorder symptoms (r = .151, p <.05). The second correlation was run between the symptom recognition question and total television exposure. A minimal inverse relationship was found between television exposure and the ability to recognize eating disorder symptoms (r = -.220, p < .01). The results from the correlation suggest that

media exposure has little, if not an inverse, relationship on the ability of men to recognize eating disorder symptoms.

Table 6

Correlation Table-Media Exposure- Symptom Recognition

	1	2	3
1. Symptom Rec.	-	-.220	.000
2. TV Total		-	.186
3. Issues Total			-

Note: No significant relationships found.

Media Exposure and Eating Pathology

Research question eight examined the relationship between media exposure and the development of eating disorders. Media exposure was divided into two different forms: television and magazines. A correlation was run between the EDEQ and television exposure as well as magazine exposure. Table 7 describes the results from media exposure and eating pathology correlation. The results of the correlations between the EDEQ and both television and magazine exposure were found not to be significant. The results suggest that exposure to the media is not linked to the development of eating disorders in men.

Table 7

Correlation Table-Media Exposure –Eating Pathology

	1	2	3
1. EDEQ	-	.139	.151
2. TV Total		-	.186
3. Issues Total			-

Note: No significant relationships found.

Summary of Results

In summary, the results of the statistical analysis provided support for several variables of interest. The data indicated that gay men may be more willing to seek help for psychological problems, in particular eating disorders. Further, the data suggests that gay men are better able to recognize the symptoms of eating disorders as being problematic. However, the results related to the GRCS and media exposure are mixed, with media exposure having received very little support and the GRCS receiving a small amount of support only within the gay male sample.

CHAPTER 4

DISCUSSION

A majority of the research that has been conducted in the area of men and eating disorders has focused on prevalence rates. More recently there has been a trend to examine the differing factors that may influence the development of eating disorders in men. With the highest rates of eating disorders occurring in gay men, there has been some research which has suggested factors that influence the development of eating disorders in gay men, but the research is extremely limited (Feldman & Meyer, 2007; French, Story., Ramafedi, Resnick, & Blum, 1996; Gettleman & Thompson, 1993; Lakkis, Ricciardelli, & Williams, 1999; Russell & Keel, 2002; Schneider, O'Leary, & Jenkins, 1995; Siever, 1994). This study was exploratory, seeking to understand why prevalence rates of eating disorders are higher in the gay male population. This study sought to provide data on risk factors that may be impacting prevalence rates as well as factors outside of risk that impact the percentage of gay men seeking help for eating disorders. The current study is important because it provides needed information to help direct further research.

Several factors were examined in this study. Of the factors that were examined in this study, quite a few received support as being influential in the prevalence rates of gay men seeking treatment for eating disorders. One original feature of this study was to examine the factor of attitudes towards help seeking. Studies that have examined eating disorders in gay men have primarily examined risk factors associated with the development of eating disorders. Attitudes towards help seeking were analyzed to provide support to the theory, which is in addition to gay men being more at risk to develop eating disorders, gay men are also more likely to seek help for eating disorders.

The factor of attitudes towards help seeking has never been studied before in relation to eating disorders and gay men. The current study found a significant difference between heterosexual and gay men on a measure of attitudes towards help-seeking. Furthermore, this finding was supported by a significant difference that was found between gay and heterosexual men on vignette questions that directly asked the participant; if they were experiencing eating disorder symptoms would they seeking psychological help. The difference in attitudes in help seeking and potential help seeking behavior found between heterosexual and gay men is supported by previous research. Past research has found that participants that identify as LGBT are more likely to have sought mental health services in comparison to heterosexual participants (Cochran and May, 2000; Cochran, Sullivan, and Mays, 2003). The results of this study suggest that part of the reason that gay men are more prevalent in the clinical eating disorder population may be related to gay men's greater likelihood to seek mental health treatment.

An additional unique feature of this study was the examination of symptom recognition. Symptom recognition has never been researched as a potential factor that is potentially increasing the prevalence rates of gay men seeking treatment for eating disorders. Symptom recognition was analyzed in two different research questions. Symptom recognition was first examined by comparing gay men and heterosexual men on their ability to recognize eating disorder symptoms in vignettes. A significant difference was found between heterosexual men and gay men in their abilities to identify eating disorder behavior. The difference between gay and heterosexual men's abilities to identify eating disorder behavior may be related to the difference in eating disorder manifestation between gay and heterosexual men (Gettelman & Thompson, 1993; Yager, Kurtzman, Landsverk, & Wiesmer, 1988; Lewinsohn, Seely, Moerk, & Striegel-Moore, 2002). However, it is unclear why gay men seem to better at recognizing eating disorder symptoms. In connection to the first research question on symptom recognition, the second research question inquired about symptom recognition and was exploring a

possible reason gay men are better equipped to recognize symptoms of eating disorders. The relationship between media exposure and symptom recognition was examined. It was thought that media exposure may be related to a greater ability to detect eating disorder symptoms. Unfortunately, a significant relationship was not found between media exposure and symptom recognition. Media exposure was also examined in relationship to the development of eating pathology. It has been well documented that media exposure effects woman's body satisfaction negatively (Anderson et al., 2001; Borzekowski, Robinson, and Killen, 2000; Tiggman, 2003; Van den Bulck, 2000). Some research has suggested that media exposure may have an adverse effect on mens' body satisfaction (Duggan & McCreary, 2004). Once again, media exposure was found not to have a significant relationship with the experience of eating disorder symptoms. A non-significant correlation was found even when two separate tests were run; one for only the gay participants and one for only the heterosexual participants.

Gender roles and gender role conflict were additional factors examined in this study. Previous research has provided support for and against the influence of levels of masculinity and femininity in the vulnerability towards the development of eating disorders in men (Meyer, Blissett, & Oldfield, 2001; Russell & Keel, 2002). Meyer, Blissett, and Oldfield (2001) were able to support that gender roles may influence the development of eating disorders. By utilizing the EAT-26 (Garner et al, 1982) and the BSRI (Bem, 1974) they were able to conclude that gay men who hold relatively feminine attributes are more likely to restrict eating and those with lower masculine attributes are more likely to have higher bulimic tendencies, indicating that high masculinity attributes are a protective factor in the development of eating pathology. However, Russell and Keel (2002) conducted a study utilizing the same measures as Meyer, Blissett, and Oldfield (2001) and they found that gay men did not report higher levels of femininity relative to heterosexual men and that femininity did not correlate significantly with measures of eating pathology in either group of men. Hospers and Jansens (2005)

conducted a similar study utilizing the BEM as a measure of masculinity and femininity and the EDE-Q as a measure of eating disorder symptoms. Hospers and Jansen results followed suit with Russell and Keel (2002). The researchers found that eating disorder symptoms were not correlated with levels of masculinity or femininity.

In this study, a significant difference was not found between heterosexual and gay men on the GRCS, suggesting that in this sample gay and heterosexual men were not experiencing differing levels of gender role conflicts. Two separate correlations were run to see if there was a relationship between gender role conflict and eating disorder symptoms with the GRCS and the EDE-Q; the first correlation examined the relationship in gay men and the second correlation examined the relationship in heterosexual men. Gender conflict was found not to be related to eating disorder symptoms in heterosexual men. However, a minimal relationship was identified in gay men. The minimal relationship found between gender conflict and eating disorder symptoms in gay men is consistent with the previous ambivalent research findings of Meyer, Blissett, and Oldfield (2001) and Russell & Keel (2002). The minimal relationship suggests that gender role may be a risk factor in gay men, however it most likely does not play a primary role in the development of eating disorders in gay men.

In summary, the factors examined in the current study included two original factors, attitudes towards help-seeking and symptom. The findings of this study suggest that attitudes towards help-seeking and symptom recognition may be related to the difference between gay and heterosexual men in prevalence rates. Though attitudes towards help-seeking was an original factor the results from this study were similar to findings of previous research that examined the general usage of mental health services of the LGBT population. An additional factor that was examined in this study was media exposure, which was found not to be significant. The findings from this study vary from the limited research that has been conducted on the topics of media exposure and eating disorders in men. Lastly, this study examined gender role conflict's influence on eating

disorder prevalence in men. Previous research utilized the BEM to examine the relationship between masculinity/femininity.

Clinical Implications

As counseling psychologists seek to satisfy the three professional roles of prevention, development and adjustment, they can revel in the fact that prevention appears to have made an impact within the gay community. Not only are gay men more willing to seek help for eating disorders symptoms they also have more likely to have positive attitudes towards seeking mental health services. The positive attitudes towards seeking mental health services is important to note considering that at one time gay men were oppressed by the mental health field during the time that homosexuality was considered a disorder. The prevention work that has been directed towards gay men should continue. The results from this study indicate that prevention work directed towards heterosexual men may be necessary in order to provide eating disorder awareness to the heterosexual men. Heterosexual men may be unaware that they can suffer from eating disorders. Furthermore, heterosexual men may be unaware of the difference genders experience related to how eating disorders manifest themselves. Prevention directed towards healthy and unhealthy ways of becoming and staying physically fit may be more beneficial than the emphasis typically seen in women related to dieting issues and their connection to eating disorder symptoms.

In addition to the area of prevention, adjustment and treatment are also aided by the results of this study. Though this study was not able to provide additional support to the factors of media or gender role conflict as risk factors for the development of eating disorders, the current study may help clinicians narrow their scope when developing conceptualizations for their clients that have been diagnosed with eating disorders. This study provides additional support for the lack of impact that gender role conflict plays in the development of eating disorders in gay and heterosexual men. Masculinity has been

hypothesized to be a protective factor against the development of eating disorders. However, this study as well as those conducted by Russell and Keel (2002) and Meyer, Blissett, and Oldfield (2001) provide support that masculinity and femininity neither increase nor decrease the risk of eating disorder in gay or heterosexual men.

The results of this study are informative for clinicians in relation to the diagnosis of eating disorders in both gay and heterosexual men. Clinicians can feel confident that gay men will be able to engage in discussions about eating disorder symptoms, especially discussions of traditional symptoms associated with eating disorders. The results from this study indicate that gay men are familiar with the diagnostic criteria of eating disorders and are able to detect the presence of pathological behavior. Furthermore, gay men are more likely to understand that an individual should seek psychological help for eating disorders and eating disorders symptoms. The clinician will most likely find that gay men will be more willing to accept a diagnosis and in turn treatment for eating disorders.

However, the results indicate that heterosexual men are less likely to recognize the symptoms and severity of eating disorders. Clinicians may find that diagnosing eating disorders in heterosexual men may be difficult because of the difficulty of heterosexual men to recognize symptoms and severity of eating disorders. Heterosexual men's lack of awareness of eating disorders and eating disorder symptoms may cause heterosexual men to be confused about diagnostic eating disorder questions and be unsure of the importance of providing eating disorder diagnostic information. Furthermore, the current diagnostic criteria may be irrelevant when diagnosing eating disorders in heterosexual men causing heterosexual men to feel as if eating disorder diagnoses are inappropriate. Confusion about diagnosis and relevance may cause heterosexual men to consider treatment for eating disorders unnecessary. The belief that treatment is not necessary may lead to early terminations of services for heterosexual men.

Limitations

The current study has several limitations. The sampling for this study had strength in that it was a nationwide sample and it was representative of a large variety of races and ethnicities. However, the sample was not random and though not completely a convenience sample, it did consist of participants who were participating for incentive. The large number of participants who were eliminated due to incomplete surveys is most likely related to an incentive based sample. In addition, a portion of the sample was recruited through college LGBT groups, which could cause the results to be more difficult to generalize. A further potential generalizability problem is related to the age of the sample that was chosen, i.e. men between the ages of 18-25. The results of this study should not be generalized past men between the ages of 18-25. Recruitment for this study utilized an email strategy in both the recruitment from the zoomerang sample and the college LGBT groups. The exact number of emails that were sent out is unknown; therefore the response rates could not be measured.

An additional limitation of this study relates to measurement error. The EDE-Q, though a very good measure of eating pathology, was validated on women. Though most measures of eating pathology have been validated on women, one should still keep in mind that the EDE-Q was not designed to be utilized with a male population nor have the rigors of the measure been tested when used with a male population. Research has suggested that men may be experiencing different symptoms of eating pathology that are not fully captured in the current measures of eating disorders (Harvey & Robinson, 2003Vignettes were utilized in this study that have not gone through formal and regimented psychometric testing. It is unknown if the vignettes were truly measuring that which they are thought to be measuring. An additional issue that should be considered is the disconnect between statistical significance and clinical significance. The statistical significance found in this study utilizing the EDE-Q was based on differences between averages. Though the results of this study were found to be statically significant, the

same differences may not be clinically significant. When considering the averages on face value, the differences between heterosexual and gay men appear to be minor and clinically the differences would be minor. Clinicians should keep in mind that the averages and results found in this study are not to be used as identifiers of clinical significance, but rather statistical indicators that gay men endorse more eating disorder symptoms. Lastly, the measures utilized in this study were given in the same order for every participant. An order effect may be present within the data. Even though there are limitations to the study, it is still felt that this study makes several important contributions to the literature.

The current study highlights the importance of considering more than pathological issues related to prevalence rates of specific diagnoses. In this particular case, the data suggest that gay men may not only be at greater risk for the development of eating disorders, but also have a better awareness of eating disorders and the symptoms associated with eating disorders. Researchers cannot deny that gay men experience greater body dissatisfaction and feeling of sexual objection than do heterosexual men, however thinking outside of the box related to why eating disorders are more prevalent in gay men can allow researchers and clinicians to see gay men as proactive consumers of mental health services, in addition to having knowledge of the risk factors gay men experience.

Future Directions

As an exploratory study, the current study was able to shed some light on why gay men are seeking treatment for eating disorders at higher rates than heterosexual men. New factors were introduced and old factors were studied in a different way. The findings from this study provide promising leads that need further investigation. The original factors that were examined in this study, attitudes towards help seeking and symptom recognition, were exciting new additions to our understanding of eating

disorders in men. Symptom recognition was measured in this study through the use of vignettes, not through the use of a validated measure of symptom recognition. Since a validated measure does not exist that measures a participant's ability to recognize eating disorder symptoms, future research in the area of symptom recognition should consider additional ways of researching the factor. The development of a measure that has the ability to measure a participant's ability to recognize symptoms could be very helpful in gauging the community's awareness of eating disorder symptoms and the ability to detect eating disorder symptoms.

Future research should be conducted to find better ways of measure eating disorder pathology and media exposure. Better measurement tools in the area of media exposure may deliver different results than those found in this study. The results that were found in the current study vary from the limited research that has been conducted on the factor. The EDE-Q is considered by many to be an excellent measure of eating disorder behavior, yet it has not been validated on men, let alone gay men. Future research should be conducted to validate the EDE-Q with men, paying special attention to the eating disorder symptoms that may vary within men in comparison to women.

Eating disorder research within men is extremely limited, even more so within gay men. Future research should continue to explore the differing factors that are influencing prevalence rates and if possible begin to move from research questions that focus on why the prevalence rates exist to research questions that possibly explain how eating disorders develop. The establishment of a model would be helpful in both prevention and treatment.

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APPENDIX A

DEMOGRAPHIC QUESTIONNAIRE

1. Age:

2. Gender:
   Male
   Female
   Transgender

3. Please select the sexual orientation that best describes you:
   0-Exclusively heterosexual
   1-Predominantly heterosexual, only incidentally homosexual
   2-Predominantly heterosexual, but more than incidentally homosexual
   3-Equally heterosexual and homosexual
   4-Predominantly homosexual, but more than incidentally heterosexual
   5-Predominantly homosexual, only incidentally heterosexual
   6-Exclusively homosexual

4. Please choose the race/ethnicity that you identify with:
   1. African American
   2. Asian American
   3. Caucasian
   4. Hispanic
   5. American Indian
   6. Other: Please Identify

5. Please choose the location that describes where you currently live:
   1. East Coast (United States)-Campus Town
   2. East Coast (United States)-Rural
   3. East Coast (United States)-Town/City
   4. East Coast (United States)-Major Metropolis
   5. West Coast (United States)-Campus Town
   6. West Coast (United States)-Rural
   7. West Coast (United States)-Town/City
   8. West Coast (United States)-Major Metropolis
   9. Midwest (United States)-Campus Town
   10. Midwest (United States)-Rural
   11. Midwest (United States)-Town/City
   12. Midwest (United States)-Major Metropolis
   13. Southern (United States)-Campus Town
   14. Southern (United States)-Rural
   15. Southern (United States)-Town/City
   16. Southern (United States)-Major Metropolis

17. Outside the United States

APPENDIX B

VIGNETTES

Original Vignette

Jared has been attempting to get into shape through the use of protein bars and low calorie protein shakes. Jared is scared of getting fat and therefore he has limited his food intake to protein bars and low calorie protein shakes. He will eat about three protein bars and three different protein shakes throughout the day. Jared has lost a lot of weight from his diet, so much so that he is no longer at a normal weight for his age and height. Many people have noticed Jared's rapid weight loss and have inquired about his well-being. Jared assures everyone that nothing is wrong, however he has been noticing that . Jared knows that he has lost a lot of weight and would be considered by most people to be thin, but at the same time he feels that he needs to stick with the diet to lose an additional 10 pounds.

Revised Vignette

Jared is a 20 year-old, 6 foot tall college student who weighs 145 lbs. Jared has been attempting to get into shape to achieve a more chisled muscular look through the use of protein bars and low calorie protein shakes. Jared is terrified of getting fat and therefore he has limited his food intake to protein bars and low calorie protein shakes. He will eat about three protein bars and three different protein shakes throughout the day, which amounts to approximately 1500 calories a day. Jared has lost a lot of weight from his diet, so much so that he is unhealthily thin. Many people have noticed Jared's rapid weight loss and have inquired about his well-being. Jared assures everyone that nothing is wrong, however he has been noticing that he has been feeling tired. Jared knows that he has lost a lot of weight and would be considered by most people to be abnormally thin, but at the same time he feels that he needs to stick with the diet to lose an additional 10 pounds.

1. How problematic do you believe the behavior is in the above vignette?

(Not Problematic)		**(Mild Problematic)**		**(Severely Problematic)**	
0	**1**	**2**	**3**	**4**	**5**

2. To what degree do you believe the person described above should receive psychological help.

(Not at All)		**(Somewhat)**		**(Definitely)**	
0	**1**	**2**	**3**	**4**	**5**

3. From your opinion how likely is this person to seek help?

(Not at All)		**(Somewhat)**		**(Definitely)**	
0	**1**	**2**	**3**	**4**	**5**

4. If you were the person described above and experienced the same feelings and behaviors, how likely would you be to seek help?

(Not at All)		**(Somewhat)**		**(Definitely)**	
0	**1**	**2**	**3**	**4**	**5**

Original Vignette

2. Shawn religiously works out at least twice a day, sometimes more. He typically will get up early before class to workout at the gym for approximately 2 hours. After class he will go back to the gym to play pick-up basketball or tennis. If Shawn is unable to make his morning workout he will compensate by running

outside five or six miles, no matter the temperature outside. Shawn has experienced many injuries from exercising and he will exercise even though injured. When Shawn goes on family vacations or travels he will insist on exercising, if he does not he can't stop thinking about how he should be exercising to compensate for the food that he has eaten throughout the day. Shawn eats a regimented six small meals a day with emphasis on covering all of the food groups and attaining a healthy number of calories.

Revised Vignette

Shawn is 21 years old, stands 6 foot 3 inches tall and weighs 160 lbs. For the past two years, Shawn has religiously worked out at least twice a day, sometimes more. He excersizes to stay thin. He typically will get up early before class to workout at the gym for approximately 2 hours. He will spend the full two hours using the cardio exercise equipment. After class he will go back to the gym to play pick-up basketball or swim. If Shawn is unable to make his morning workout he will compensate by running outside five or six miles, no matter the temperature or weather outside. Shawn has experienced many injuries from exercising and he will exercise even though injured. When Shawn travels he will insist on exercising, if he does not he can't stop thinking about how he should be exercising to burn the calories that he has eaten throughout the day. Shawn must complete all of his daily exercise before he can socialize. Shawn eats a regimented six small meals a day focusing on foods that will increase his metabolism.

1. How problematic do you believe the behavior is in the above vignette?

(Not Problematic)		(Mild Problematic)		(Severely Problematic)	
0	**1**	**2**	**3**	**4**	**5**

2. To what degree do you believe the person described above should receive psychological help.

(Not at All)		(Somewhat)		(Definitely)	
0	**1**	**2**	**3**	**4**	**5**

3. From your opinion how likely is this person to seek help?

(Not at All)		(Somewhat)		(Definitely)	
0	**1**	**2**	**3**	**4**	**5**

4. If you were the person described above and experienced the same feelings and behaviors, how likely would you be to seek help?

(Not at All)		(Somewhat)		(Definitely)	
0	**1**	**2**	**3**	**4**	**5**

Original Vignette

2. Brian is a college wrestler that has had problems making his weight throughout the season. He knows that he would have a successful season if he could make weight. In order to make weight Brian has been eating small meals and occasionally he will self-induce vomiting right before weigh-in. At other times he will prepare for weigh-in by causing himself to sweat excessively either through working out with layers of clothing or by sitting in a dry sauna. Brian will find himself worrying about his

weight throughout the day. Brian will try to control is weight through the use of small meals, sweating, and self-induced vomiting for five months out of the year.

Revised Vignette

Brian is a college wrestler who has had problems making his weight for the past two seasons. Brian is 19 years old, stands 5 foot 8 inches tall, and weighs 155 lbs out of season and 130 lbs during season. He knows that he would have a successful season if he could make weight. Upon the advice of his fellow teammates, Brian has been eating small meals and about once a week he will self-induce vomiting right before weigh-in. At other times he will prepare for weigh-in by causing himself to sweat excessively either through working out with layers of clothing or by sitting in a dry sauna. Brian will find himself worrying about his weight throughout the day. Brian will try to control is weight through the use of small meals, sweating, and self-induced vomiting for five months out of the year. He has found his weight control methods to be effective to reach his weight goals.

1. How problematic do you believe the behavior is in the above vignette?

(Not Problematic)		**(Mild Problematic)**		**(Severely Problematic)**	
0	**1**	**2**	**3**	**4**	**5**

2. To what degree do you believe the person described above should receive psychological help.

(Not at All)		**(Somewhat)**		**(Definitely)**	
0	**1**	**2**	**3**	**4**	**5**

3. From your opinion how likely is this person to seek help?

(Not at All)		**(Somewhat)**		**(Definitely)**	
0	**1**	**2**	**3**	**4**	**5**

4. If you were the person described above and experienced the same feelings and behaviors, how likely would you be to seek help?

(Not at All)		**(Somewhat)**		**(Definitely)**	
0	**1**	**2**	**3**	**4**	**5**

Original Vignette

4. Joe has struggled with his weight since he was an adolescent. He was often teased about his weight when he was younger and this took a toll on his self-esteem. As Joe grew into adulthood he lost some of the weight, but he still feels dissatisfied with his body and with himself. Joe will frequently go throughout the day eating very little, but he finds himself obsessed with thoughts of food. Usually twice at the end of the day, his hunger overtakes him and he will eat large amounts of food. After Joe finishes eating he will feel guilty and disgusted with himself. Joe has found that if makes himself vomit after he eats large amounts of food, it helps reduce the feelings of guilt and disgust.

Revised Vignette

Joe is 22 years old, stands 5 foot 11 inches tall, and weighs 150 lbs. Joe has struggled with his weight since he was an adolescent. He was often teased about his weight when he was younger and this took a toll on his self-

esteem. As Joe grew into adulthood he lost some of the weight, but he still feels dissatisfied with his body and with himself. Over the past year, Joe has frequently gone throughout the day eating very little, but he has found himself obsessed with thoughts of food. Usually twice a week at the end of the day, his hunger overtakes him and he will eat everything in sight. When Joe is overtaken with his hunger it is not unusual for him to eat four Big Macs, two larg fires, two shakes and two apple pies at one sitting. After Joe eats the large amount of food he will feel guilty and disgusted with himself. Joe has found that if he makes himself exercise for three to four hours after he eats large amounts of food, it helps reduce the feelings of guilt and disgust.

1. How problematic do you believe the behavior is in the above vignette?

(Not Problematic)		**(Mild Problematic)**		**(Severely Problematic)**	
0	**1**	**2**	**3**	**4**	**5**

2. To what degree do you believe the person described above should receive psychological help.

(Not at All)		**(Somewhat)**		**(Definitely)**	
0	**1**	**2**	**3**	**4**	**5**

3. From your opinion how likely is this person to seek help?

(Not at All)		**(Somewhat)**		**(Definitely)**	
0	**1**	**2**	**3**	**4**	**5**

4. If you were the person described above and experienced the same feelings and behaviors, how likely would you be to seek help?

(Not at All)		**(Somewhat)**		**(Definitely)**	
0	**1**	**2**	**3**	**4**	**5**

Original Vignette

5. Chris has been concerned with his appearance for the past 3 years. He would like to lose 15-20 pounds and have a lean muscular body. He has tried several diets and they have worked for him, however once he stops the diet the weight will return. Chris realizes that he needs to eat three meals a day and will choose diets that allow him to do this. He tries to get all four food groups, but occasionally a diet will limit him to three.

Revised Vignette

Chris is 19 year olds, stands 5 foot ten inches tall, and weighs 175 lbs. Chris has been concerned with his appearance for the past 3 years. He is slightly overweight and would like to lose 15-20 pounds and have a lean muscular body. He hopes by losing the weight he will look more like his peers and become more sexually attractive. He has tried several diets and the diets have worked for him. However, once he stops the diets the weight will return. Chris realizes that he needs to eat three meals a day and will choose diets that allow him to do this. He tries to get all four food groups, but occasionally a diet will limit him to three. Besides dieting and moderate exercise, Chris does not utilize any other form of weight lose.

1. How problematic do you believe the behavior is in the above vignette?

(Not Problematic)		**(Mild Problematic)**		**(Severely Problematic)**	
0	**1**	**2**	**3**	**4**	**5**

2. To what degree do you believe the person described above should receive psychological help.

(Not at All)		**(Somewhat)**		**(Definitely)**	
0	**1**	**2**	**3**	**4**	**5**

3. From your opinion how likely is this person to seek help?

(Not at All)		**(Somewhat)**		**(Definitely)**	
0	**1**	**2**	**3**	**4**	**5**

4. If you were the person described above and experienced the same feelings and behaviors, how likely would you be to seek help?

(Not at All)		**(Somewhat)**		**(Definitely)**	
0	**1**	**2**	**3**	**4**	**5**