The Moderating Effects of Attachment to God on Disordered Eating Behaviors

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Table of Contents

List of Tables

List of Figures

The Moderating Effects of Attachment to God on Disordered Eating Behaviors

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Abstract

Attachment to God has been shown to serve as a protective factor against certain eating disorder risk factors such as negative body image and sociocultural pressure. The current project sought to further that research by examining the possible moderating effects of attachment to God on specific disordered eating symptoms. Data from questionnaires that were distributed through Amazon's Mechanical Turk were analyzed. The sample consisted of 102 women ranging in age from 19-57. The women varied in their religious affiliations and beliefs. They were given four questionnaires measuring perceived sociocultural pressures, eating disorder symptoms, emotional eating, and attachment to God. Attachment to God was hypothesized to moderate the effect of sociocultural pressures on disordered eating symptoms. It was predicted that the women who perceive more sociocultural pressure and had an insecure-avoidant attachment to God would score higher on anorexia symptoms in the eating disorder questionnaire, while women who perceived more sociocultural pressure and had an insecure-anxious attachment would score higher on bulimia symptoms. Additionally, significant correlations between anxious attachment to God and emotional eating factors were predicted. Results indicate a significant correlation between bulimia symptoms and anxious attachment, as well as significant correlations between bulimia symptoms and each factor of the Emotional Eating Scale (EES; anger/frustration, anxiety, & depression). Furthermore, insecure-anxious attachment to God was found to significantly moderate the effect of sociocultural pressure on bulimia symptoms.

Keywords: attachment to God, bulimia, sociocultural pressure, emotional eating

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Introduction

Eating disorders are a growing concern despite increased research and the emergence of new treatments over the past 40-50 years. In the United States today, anorexia nervosa, bulimia nervosa, and binge eating disorder affect .9%, 1.5%, and 3.5%, respectively (Hudson, Hiripi, Pope, & Kessler, 2007). It is important to note that the prevalence of eating disorders appears to affect the general female population, while prevalence amongst the male population seems to affect certain subgroups.[1] Due to the fact that only female data was collected in this study, the nature of eating disorders in the male population will not be explored. An extensive amount of research has been done in order to identify the risk factors for the development of eating disorders in females. As research has more recently begun to emerge regarding the protective factors for eating disorders, religion/spirituality has been identified as a general protective influence. In particular, secure attachment to God may protect against disordered eating. Psychologists of religion theorize that a person's relationship with God often resembles a human attachment relationship (Granqvist, 1998; Kirkpatrick, 1997; Kirkpatrick, 1998). Because previous research has suggested that insecure attachment with parents predicts an increase in risk factors for developing an eating disorder (e.g., higher body dissatisfaction; Davis, Shuster, Blackmore, & Fox, 2004), this study hopes to explore how a woman's attachment to God might directly relate to disordered eating behaviors.

Eating Disorders Risk Factors and Causes

[1]In particular, recent research suggests that among gay men, almost 14% are suffering from bulimia and 20% from anorexia (Russell & Keel, 2002).

A number of risk factors for the development of disordered eating symptoms have been identified in the biological, psychological, relational, and emotional realms. Some of these included but are not limited to, personality characteristics of perfectionism, low self-esteem, and sense of ineffectiveness (Blank & Latzer, 2004); feeling a lack of control within interpersonal relationships (Slade, 1982); expressing emotions (Garner, Vitousek, & Pike, 1997); and internalization of sociocultural attitudes and early menarche (Stice, 2002; Wade & Lowes, 2002). One risk factor that seemed to be most notable in American culture is that of social pressures from the media, culture, friends, and family. Multiple studies found perceived social pressures and expectations as well as thin-ideal internalization of cultural standards to be risk factors in the development of eating disorders (Basow, Foran, & Bookwala, 2007; Brown & Dittmar, 2005; Dittmar, 2005; McKnight Investigators, 2003; Presnell, Bearman, & Stice, 2004).

Brown & Dittmar (2005) suggested that even small and brief amounts of exposure to unrealistic cultural expectations of thinness could have detrimental effects on a woman's body image. Presnell et al. (2004) examined the predictors of body dissatisfaction considering the research that demonstrated body dissatisfaction predicted eating disorders. They found that girls who perceived pressure to be thin from their peers had significantly higher rates of body dissatisfaction.[2] These findings suggest body dissatisfaction may act as a mediator of the relation between social pressures and the development of eating disorders.

Additionally, a number of studies identified certain family environments, values, and expectations to be risk factors for eating disorders. People who grew up in families

[2] They also found that higher body mass at the initial testing time predicted increased body dissatisfaction compared to girls who had below average body mass.

who placed a greater emphasis on physical appearance, attractiveness, and weight were found to have higher body dissatisfaction and increased disordered eating (Davis et al., 2004; Tester & Gleaves, 2005). Davis et al. (2004) found that women who tended to be more neurotic and grew up in a family that placed a strong emphasis on appearance were more likely to internalize particular body pressures and expectations of their family. In contrast, women who had lower scores on neuroticism did not conform as easily to the pressures and expectations of their family. The researchers suggest that personality variables (i.e., neuroticism) may moderate the effect of family values on the development of an eating disorder.

Attachment and the Development of Eating Disorders

Attachment style may be a particular psychological mechanism by which families influence the development of eating disorders. Researchers found that, in general, women diagnosed with eating disorders reported lower parental care (Palmer, Oppenheimer, & Marshall, 1988), emotionally unavailable and rejecting fathers (Cole-Detke & Kobak, 1996; Rhodes & Kroger, 1992), perfectionist and overprotective mothers (Minuchin, Rosman, & Baker, 1980), and parents who often seem to hinder attempts at independence (Kenny & Hart, 1992). Considering the design of these studies, caution should be exercised when interpreting the findings because the majority of the research relied on retrospective accounts of early family experiences.

In regards to early family experiences, Bowlby (1973) and Ainsworth, Blehar, Waters, and Wall (1978) identified four general attachment styles to describe the quality of the relationship between a caregiver and infant: secure, avoidant/dismissive, ambivalent/anxious, and disorganized/disoriented. Attachment theory in childhood was

then translated into attachment theory in adulthood, and researchers found that people form internal working models in childhood that then form the basis of their adult attachment relationships, in particular romantic relationships (Hazan & Shaver, 1987; Shaver & Hazan, 1998; Shaver, Hazan, & Bradshaw, 1998). Internal working models were defined as cognitive schemas that framed how people view themselves in relationship contexts. Bowlby (1969/1982) believed these ongoing patterns of viewing the self and others affected how people act towards themselves and in relationships, and how they internalized the reactions and responses of others towards them. Though researchers have not found a direct relation between infant and adolescent/adult attachment style, one study found 80% concordance of maternal and adolescent attachment styles for adolescents who were psychologically disturbed (Rosenstein & Horowitz, 1996).

Current researchers moved away from a typological approach when assessing attachment to a dimensional approach whereby they examined how people scored on the two dimensions of insecure attachment; avoidance and anxiety (Hazan & Shaver, 1987; Mikulincer, Shaver, Sapir-Lavid, & Avihou-Kanza, 2009). Viewing the dimensions on two axes created four quadrants that aligned with the childhood attachment categories. The dimensional approach has been shown to be most accurate for adults (Mikulincer et al., 2009), thus it was the approach utilized in this study. See Figure 1 for a graphical depiction of the two-dimensional approach.

Previous studies that looked at adult attachment to romantic partners found that people who had increased anxiety in their relationships were often driven by primary insecurities around love, loss, and abandonment (Feeney, 1999). Further, when people

experienced attachment anxiety they tried to soothe themselves through certain harmful and maladaptive behaviors, such as isolation, addiction, emotional dependency, or even disordered eating. Thus, the fears they had about being abandoned and unloved often came true, which reinforced their original insecurities. In contrast, people with a more avoidant attachment style will tended to limit intimacy and maintained distance in relationships, which deepened their beliefs that attachment figures were not trustworthy or dependable and would reject them (Feeney, 1999).

A woman who felt 'secure,' as it was referred to within the context of attachment theory, was confident that the significant attachment figures in her life (parents, spouse, God) not only felt that she is lovable, competent, and valued, but she also believed that they were available and present even when she was not feeling that way towards herself. On the other hand, a woman with a more insecure-anxious attachment style often felt that she was unlovable and/or incompetent, and she feared that her attachment figures would abandon her if she was not valuable to them (Bretherton & Munholland, 1999). Furthermore, a woman with an insecure-avoidant response might have believed her attachment figures were unreliable, so she avoided intimacy with these people and became emotionally cutoff and isolated in relationships.

Thus far, research seems to suggest that women who have been diagnosed with eating disorders tend to have more insecure attachment styles than women who have not been diagnosed (Barone & Guiducci, 2009; Fonagy et al., 1996; Illing, Tasca, Balfour, & Bissada, 2010; Troisi et al., 2006; Ward et al. 2001). Attachment anxiety has been found to be more often associated with binging and purging behaviors, whereas, attachment

avoidance has been found to correlate with a starving response (Tasca, Ritchie, & Balfour, 2011).

Researchers made connections between attachment, eating disorders, and the need for control that is often theorized to underlie this psychopathology. Attachment theorists noted that insecure attachment led people to feel like their world was unsafe and out of control. Cole-Detke and Kobak (1996) proposed that eating disorders, specifically anorexia, were an attempt to control the world and regulate emotions by directing attention away from feelings of inadequacy and distress. Other researchers suggested that when a person's environment was perceived as chaotic and out of one's control, an eating disorder was a functional way for a person to gain a sense of control (Blank & Latzer, 2004; Fox & Leung, 2008; Slade, 1982). These findings seem to suggest that attachment security may play an important role in the understanding of eating disorders.

Koskina and Giovazolias (2010) looked at how insecure attachment might contribute to negative body image and, in turn, disordered eating patterns. The researchers found that the relation between anxious attachment style and disordered eating was mediated by body dissatisfaction. On the other hand, avoidant attachment was directly related to disordered eating patterns and dieting behaviors, and body dissatisfaction did not mediate these associations. Overall, research seems to suggest that women who have a more secure attachment style tend to display less body dissatisfaction and disordered eating patterns than women with insecure attachments. Secure attachment, then, may be considered a protective factor against eating disorders and pathology.

Protective Factors and Religiosity

Attachment security was one among many protective factors that acted as a

safeguard for girls and women against body dissatisfaction, perceived pressures from external sources (media, culture, family), and the development of disordered eating. Other protective factors that were identified included: more positive physical self-concept and accepting attitude towards the body (Cook-Cottone & Phelps, 2003; Gustafsson, Edlund, Kjellin, & Norring, 2009) decreased drive for thinness and higher social self-esteem (Cook-Cottone & Phelps, 2003); exposure to realistic female images in the media (Fister & Smith, 2004); ethnicity (Shuttlesworth & Zotter, 2011; Warren, Gleaves, Cepeda-Benito, Fernandez, & Rodriguez-Ruiz, 2005); parental messages and emotional availability (Cordero & Israel, 2009); and low BMI and healthy eating attitudes (Gustafsson et al., 2009).

Another protective factor for eating disorders that was identified by researchers was religion and religiosity (Boyatzis, Kline, & Backof, 2007; Boyatzis & Quinlan, 2008; Forthun, Pidcock, & Fischer, 2003; Joughin, Crisp, Haick, & Humphrey, 1992; Smith, Hardman, Richards, & Fischer, 2003). The link between eating disorders/body image and religion was not examined until the late 1990s and early 2000s. Since then, a number of studies found a positive association between a woman's body image and her religiosity. For example, stronger intrinsic religiousness, increased prayer, and a closer relationship with God correlated with more positive feelings about one's appearance and body weight in a non-clinical population (Boyatzis & McConnell, 2006). Researchers also found that when a sample of college women described the effects of their religiosity on their body image in writing, they typically described positive effects (Boyatzis, Trevino, Manning, & Quinlan, 2006).

Additionally, research has suggested that women who have certain religious

convictions and views about themselves are protected against certain risk factors of eating disorders, such as body dissatisfaction and thin-ideal internalization. One experiment with a non-clinical population found that women who read religious affirmations about God's love and acceptance of their bodies (e.g., "My body is the temple of the Holy Spirit") before they viewed images of thin-ideal fashion models demonstrated an increase in how they felt about their appearance as compared to women in the control group who read neutral statements (e.g., "Student government meetings are open to students"), whose views of themselves declined (Boyatzis et al., 2007). Highly religious college women reported that prayer, meditation, and reading religious texts helped them to deal with their body dissatisfaction and eating concerns (Jacobs-Pilipski, Winzelberg, Wilfley, Bryson, & Taylor, 2005). In addition, high intrinsic religiousness was found to decrease the positive relationship between dysfunctional families and disordered eating (Forthun et al., 2003).

Sanctification was explored as a specific psychological mechanism by which religiousness protects against eating disorders. Mahoney et al. (2005) defined sanctification as "perceiving aspects of life as having divine significance and character" (p. 223). They found that when people imbued their body with sacred qualities they showed higher levels of body satisfaction and lower levels of unhealthy eating patterns, such as binge eating. More recently, Jacobson, Lewis-Hall, and Anderson (2013) looked at the influence that sanctification might have on bodily experiences. Consistent with previous research, they observed that sanctification was positively correlated with body satisfaction, and negatively correlated with depersonalization and objectification of the body.

It is important to note that findings have been contradictory at times, and that religious conviction has been found to have detrimental effects for some women when it interacts with other factors (Boyatzis & Quinlan, 2008; Forthun et al., 2003; Joughin et al., 1992). For example, women from particular traditions, which emphasize asceticism and a negative view of the body, have actually used their religious convictions to justify eating disorder behaviors and weight loss (Joughin et al., 1992). In a review of the literature looking at the relation between body image, religiousness, and disordered eating, Boyatzis and Quinlan (2008) identified two constructs that demonstrated a negative association between religiousness and body image, thus increasing the risk for eating disorders—extrinsic religiousness and quest orientation. Extrinsic religiousness was defined as "a self-serving motivation to obtain status, social support, and/or a felt sense of security from religion" (Forthun et al., 2003, p. 9). Forthun et al. (2003) found that extrinsic religiousness acted as a moderator of the relation between family dysfunction and bulimia, as well as a relation between family dysfunction and desire for thinness, demonstrating that extrinsic religiousness is a vulnerability factor for disordered eating. Quest orientation was defined as a "religious orientation marked by an appreciation for existential questions, doubt, and paradox, and rejection of simple explanations about faith issues" (Boyatzis & McConnell, 2006, p. 198). Boyatzis and McConnell (2006) found that college females, particularity freshman and sophomores, who had higher quest scores (i.e., they experienced more questioning and doubting about their religion) reported poorer body image and increased eating problems, specifically bulimic behavior patterns.

Despite the negative effects of certain religious orientations on disordered eating,

there has been increasing evidence that improvements in a woman's spiritual well-being is positively correlated with betterment of eating attitudes and negatively correlated with body shape concerns, relationship distress, and eating disorder symptoms (Richards, Berrett, Hardman, & Eggett, 2006; Smith et al., 2003).

Insecure Attachment to God as a Risk Factor

The majority of research on religiousness and body image thus far seemed to suggest that there was a positive relation between women's religiousness and body image. Moreover, research demonstrated the negative effects of insecure attachment to parents on disordered eating. However, less investigation has been done on the kind of attachment relationship that women have with God and whether or not it serves as a risk factor for developing eating disorders. Kirkpatrick (1999) maintained that the theory behind how people attached to their parents could be translated into how people related to God. Central to this theory was the idea that people often viewed God as an attachment figure (Kirkpatrick, 1999; Kirkpatrick & Shaver, 1992) and that a secure attachment to God functioned to increase well-being in a manner similar to secure attachment in human relationships. Kirkpatrick and Shaver (1992) found that people who demonstrated a more secure attachment to God reported less anxiety, depression, and physical illness as well as greater life satisfaction. These findings have important implications for the role that a woman's attachment to God may have in developing an eating disorder.

Research established that women who were diagnosed with an eating disorder tended to have relationships with God that could be described as anxious, shame-based, and fearing of rejection (Richards et al., 2006). Secure attachment to God was shown to reduce levels for pressure to be thin, thin-ideal internalization, body dissatisfaction, and

dieting (Homan & Boyatzis, 2010), in addition it served as a protective factor against the negative effects of media exposure on women's body image (Homan, 2012). To delineate the relation between God attachment and eating disorders, Homan and Boyatzis (2010) drew upon the Dual Pathway Model (Stice & Agras, 1998), which suggested that dieting was caused by body dissatisfaction and that body dissatisfaction could be predicted by women's thin-ideal internalization and perceived pressure to be thin. They expanded on this model by finding that women's attachment to God acted as a moderator for the two factors that were found to predict body dissatisfaction. They found that thin-ideal internalization and pressure to be thin only predicted body dissatisfaction when women had an insecure-anxious attachment with God. Additionally, women who demonstrated a secure attachment with God on the Attachment to God Inventory (AGI) were actually protected from the risk factors over time (T2 measurement 7 months later). Homan (2012), using a laboratory manipulation, found that when she showed images of ultra-thin models to college-aged women their body dissatisfaction increased. However, this increase was smaller for women who demonstrated a secure attachment to God.

Attachment to God and Emotional Eating

As an exploratory aspect of this study, I decided to examine how attachment to God, sociocultural pressure, and bulimia symptoms correlated with emotional eating. One conceptualization of binge eating was as an extreme form of emotional eating, such that in particular emotional states that are too uncomfortable to manage a woman sought to find a way to cope. For a woman with difficulty regulating her emotions she may have coped with her uncomfortable feelings, such as sadness, anxiety, or frustration by binge eating. Research supported this relation between bulimia and emotional dysregulation,

suggesting that binging and purging are strategies used to soothe and eliminate one's negative emotional states (Berg et al., 2013; Hayaki, 2009). Further, the affect regulation model, developed by Polivy and Herman (1993), demonstrated that right before an episode of binging and purging negative affect tends to be increased, and directly after the behaviors took place there was a reduction in negative affect, suggesting that these behaviors are maintained through negative reinforcement (Berg et al., 2013; Crosby et al., 2009). It was also evidenced in the attachment literature that insecurely attached people tended to struggle with regulating their emotions (Gillath, Bunge, Shaver, Wendelken, & Mikulincer, 2005; Kerns, Abraham, Schlegelmilch, & Morgan, 2007). In particular, individuals who were high on anxious attachment tended to use hyperactive coping strategies in order to elicit attention and support (Marganska, Gallagher, & Miranda, 2013; Mikulincer, Shaver, & Pereg, 2003).

Research related to emotional eating, however, has not been extended to attachment to God, thus the study sought to supplement this gap in the literature through the exploration of emotional eating, bulimia symptoms, and attachment to God.

Research Aims of the Present Study

Although previous studies established a relation between God attachment and body image, they did not assess for actual eating disorder symptoms. The present study hoped to rectify this deficiency in the literature by directly testing the effect of attachment to God on eating disorder symptoms by including the Eating Disorder Diagnostic Scale (EDDS; Stice, Fisher, & Martinez, 2004). Moreover, previous studies used psychological questionnaires and sampled female undergraduates from private, Christian liberal arts colleges. This particular population of individuals was unique in their beliefs,

backgrounds, and current life stage, and it did not necessarily provide generalizable results. More generally, the majority of the studies on religion and eating disorders sampled people from Judeo-Christian backgrounds, though there were a few studies that also included Buddhist adherents (Smith et al., 2003). In the present study, I sought to attain more generalizable results by recruiting a diverse sample of women through Amazon.com's Mechanical Turk.

Hypotheses

Several hypotheses were tested in the present study. In hopes of replicating previous research findings that the dimensions of attachment security were differentially related to anorexia and bulimia symptoms. I hypothesized that:

H1: Women with a more insecure-anxious attachment style to God would perceive more sociocultural pressures and score higher on bulimia symptoms.

H2: Women with a more insecure-avoidant attachment style to God would perceive more sociocultural pressures and score higher on anorexia symptoms.

As described above previous research demonstrated that attachment to God moderated the relations between sociocultural pressures, body dissatisfaction, and thin ideal internalization. In this study, I measured how attachment to God moderated the relation between sociocultural pressures and eating disorder symptoms. Thus, I proposed two hypotheses:

H3: Attachment to God would moderate the relation between sociocultural pressure and bulimia symptoms such that women who perceived greater sociocultural pressure and had an anxious attachment to God would score higher on bulimia symptoms, and

H4: Attachment to God would moderate the relation between sociocultural pressure and anorexia symptoms such that women who perceived greater sociocultural pressure and had an avoidant attachment to God would score higher on anorexia symptoms.

In addition, to further explore the relation of emotional eating to bulimia symptoms, as well as the variables of sociocultural pressure and attachment to God, I hypothesized that:

H5: Women with increased levels of emotional eating across each of the three emotion factors would experience more sociocultural pressures, score higher on bulimia symptoms, and demonstrate an anxious attachment to God.

H6: Anxious attachment to God would moderate the relation between sociocultural pressures and emotional eating such that women who perceive more sociocultural pressures and have a more insecure-anxious attachment to God would report higher rates of emotional eating.

Methods

Sample and Procedures

Participants for the proposed study included 102 adult women who were recruited through Amazon.com's Mechanical Turk (MTurk), an online recruitment tool for projects that can be completed through the Internet. MTurk participants were shown to be significantly more representative of the United States population than convenience samples (e.g., undergraduate students; Berinsky, Huber, & Lenz, 2012). There were three requirements for participation in the study: that participants' Internet Protocol Address

(IP Address) designated that they lived in the United States, that they were at least 18 years old, and that they had fluency in the English language.

As expected, the participants were diverse in age, ethnicity, worldview, socio-economic status, sexual orientation, and religious affiliation. The women ranged in age from 19 to 57 years old, with a mean age of 33.2 years (*SD* = 8.8). The average body mass index (BMI) ranged from 15.8 to 53.2 with a mean of 27.8 (*SD* = 7.8)[3]. A BMI that was less than 18.5 was considered underweight, and a BMI that was greater than 30 was categorized as obese. The majority of the study participants identified as Caucasian (87.3%), with representatives from the African American (6.9%), Asian American (3.9%), Latina (2.0%), and West Indian (1.0%) communities. Most of the women also identified as heterosexual (81.4%) and over half stated that they were single (55.9%). The sample was not representative of the general U.S. population with regards to sexual orientation and ethnicity.[4] In regards to education, 36.3% attended some college, 26.5% had a bachelor's degree, 13.7% were high school graduates, 10.8% had an associate's degree, 8.8% had a master's degree, and 3.9% attended some graduate school. The largest group of women reported a yearly salary of $25,000-$49,000 (38.2%) and identified themselves as "lower-middle class" relative to their community (43.1%). Finally, a unique aspect of this study was that the sample of women reported a wide range of religious affiliations. Though the largest subset of women identified as 'Christian' (44.1%), 27.5% stated that they were Atheist and 16.7% as Agnostic. Exline, Park, Smyth, and Carey (2011), provided strong support for using samples that included

[3] The height and weight used to calculate BMI were obtained by self-report.
[4] The 2012 Gallup report found that 3.6% of women in the U.S. identify as LGBT (Gates & Newport, 2012).

atheists and agnostics when studying God as their research found that not only do these groups harbor anger towards God due to their past religious/faith history, but they may possess anger that is focused on current images of God. Please refer to Table 1 for a complete breakdown of the sample demographics.

The women completed a one-time online assessment through MTurk, lasting 45-60 minutes. The assessment included a demographic questionnaire, a projective narrative that participants to completed in 1-2 paragraphs, and six measures—The Perceived Sociocultural Pressure Scale (Stice & Bearman, 2001), Eating Disorder Diagnostic Scale (Stice, Telch, & Rizvi, 2000), Religious Commitment Inventory (Worthington et al., 2003), Attachment to God Inventory (Beck & McDonald, 2004), Varieties of Non-Religiosity Scale (Barnes & Gibson, 2013), and Emotional Eating Scale (Arnow, Kenardy, & Agras, 1995). For the purpose of this study, only data from The Perceived Sociocultural Pressure Scale, Attachment to God Inventory, and Emotional Eating Scale were analyzed.

Assessments and Measures

Perceived sociocultural pressure. Perceived pressure to be thin was evaluated using the 10-item Perceived Sociocultural Pressure Scale (Stice & Bearman, 2001). This assessment asked women about how much pressure to be thin they had experienced from their friends, family, romantic partner(s), and the media (e.g., "I've noticed a strong message from my family to have a thin body") measured on a 5-point scale (1 = *none*, 5 = *a lot*). Prior studies demonstrated good test-retest reliability and validity for this measure (Stice & Agras, 1998; Stice & Bearman, 2001).

Eating disorder symptoms. The Eating Disorder Diagnostic Scale (EDDS; Stice

et al., 2000) was used to assess anorexia nervosa, bulimia nervosa, and binge eating disorder using items that contained the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.; *DSM-IV-TR;* American Psychiatric Association, 2000) diagnostic criteria. The scale consisted of 22 self-report items and asked women to answer questions such as "How many times per week on average over the past 3 months have you made yourself vomit to prevent weight gain or counteract the effects of eating?" and, "Over the past 3 months, how many menstrual periods have you missed?" Responses to the questions could be used to diagnose each of the three DSM-IV eating disorders. Further, items could be summed to make an overall estimate of eating disorder symptoms. Robust reliability and validity were evidenced in multiple studies with young women (Stice et al., 2004).

Emotional eating. The 25-item Emotional Eating Scale (EES; Arnow et al., 1995) was included to assess for the relation between negative affect and eating behaviors. Twenty-five emotions were presented and participants were asked to rate on a 5-point scale (0 = *no desire to eat*, 4 = *an overwhelming urge to eat*) their eating behaviors with certain emotions. The measure contained three subscales measuring three negative emotional states—anxiety, anger/frustration, and depression. The 11-item anger/frustration subscale assessed for the relation between emotions related to anger/frustration and eating behaviors (e.g., resentful, discouraged, inadequate). The 8-item anxiety subscale assessed for associations between anxious emotions and eating behaviors (e.g., shaky, jittery, uneasy). Finally, the 5-item depression subscale examined the relation between emotions associated with depression and eating behaviors (e.g., worn-out, sad, lonely). Low scores indicated a starving response to these emotions while

high scores indicated a binging response. The EES was found to be internally consistent and temporally stable (Arnow et al., 1995).

Attachment to God. The 26-item Attachment to God Inventory (AGI; Beck & McDonald, 2004) was used to measure women's relationship with God. Participants answered questions using a 7-point scale (1 = *disagree strongly*, 7 = *agree strongly*). The assessment was composed of two subscales measuring anxious attachment and avoidant attachment. The 14-item anxiety subscale looked for themes of anxiety present in a person's relationship with God (e.g., "I fear God does not accept me when I do wrong"). Low scores indicated a more secure relationship with God, while high scores reflected a more insecure-anxious relationship with God. The 12-item avoidance subscale assessed for themes that reflected a persons' tendencies to distance themselves from God and avoid closeness with God (e.g., "I believe people should not depend on God for things they should do for themselves"). Persons with higher scores on this subscale demonstrated greater avoidance in their relationship with God. The AGI showed strong reliability and construct validity in a multi-sample study (Beck & McDonald, 2004).

Results

Preliminary Analyses and Data Preparation

Prior to commencing the statistical analyses, the data were screened for missing responses and outliers. After review of the data, it was determined that none of the participants were missing a sufficient amount data to warrant their removal. Thus, none of the participants were eliminated from the data set. A scatterplot of the data did not reveal any outliers.

Due to unforeseen complications with the Eating Disorder Diagnostic Scale,

primarily that the syntax could not be run in the updated version of the *Statistical Package for the Social Sciences* (SPSS), two individual variables were created using questions that were associated with anorexia symptoms or bulimia symptoms. The variable for anorexia symptoms was labeled *weight distortion*. The variable for anorexia symptoms was comprised of only two items related to distorted views of one's weight, which were scored differently based on the women's BMI to reflect the accuracy of those views. Please see Appendix C for the exact items used. Anorexia symptoms scores were dichotomized to avoid an over-reliance on a somewhat arbitrary weighting of views versus BMI, and because the distribution was not normal. The variable for bulimia symptoms was labeled *bulimia behaviors,* and consisted of 13 items from the EDDS. All of these items related to binging and/or purging behaviors.

The bulimia symptoms' variable was also transformed into *z*-scores for use in the analyses (as was the prescribed practice from the EDDS authors). This transformation was necessary due to the difference in scales (e.g., 1-3, 1-5, 1-7) for various EDDS items. In addition, for the multiple regression analyses, the sociocultural pressure, anxious attachment, and avoidant attachment variables were centered. Multiplying the centered sociocultural pressure, anxious attachment, and avoidant attachment variables before they were entered into the regression models generated the interaction terms.

Prior to testing the study hypotheses, differences in the main study variables based on demographic variables were tested. Sexual orientation and age did not predict differences. As expected, BMI positively correlated with bulimia symptoms ($r = .29$, $p < .01$), negative emotional eating ($r = .25$, $p = .01$), and sociocultural pressure ($r = .31$, $p < .01$). BMI negatively correlated with anorexia symptoms ($r = -.49$, $p < .01$), but this

correlation was inflated due to the use of the BMI in calculating anorexia symptoms scores. Caucasians scored higher on avoidant attachment to God ($M = 4.29$, $SD = 1.18$) than non-Caucasians ($M = 3.50$, $SD = 1.13$), $F(1, 100) = 5.14$, $p = .03$, Cohen's $d = .69$. Those who endorsed belief in God differed in their attachment to God compared to those who did not endorse belief. Those who did not endorse belief in God scored higher on avoidant attachment to God ($M = 4.97$, $SD = .71$) than those who endorsed belief ($M = 3.75$, $SD = 1.21$), $F(1, 100) = 31.26$, $p < .01$, Cohen's $d = 1.23$. In contrast, those who endorsed belief in God scored higher on anxious attachment to God ($M = 2.78$, $SD = 1.24$) than those who did not endorse belief ($M = 1.48$, $SD = .72$), $F(1, 100) = 33.84$, $p < .01$, Cohen's $d = 1.28$.

Statistical Analyses

Correlational analysis. Correlational analysis was used to test the hypotheses that women with a more insecure-anxious attachment style would perceive more sociocultural pressures, score higher on bulimia symptoms, and have higher emotional eating scores. Positive relations were also predicted between sociocultural pressure, anorexia symptoms, avoidant attachment, and emotional eating scores. Pearson correlations were calculated to determine the magnitude and direction of the relation between these variables and are displayed in Table 2. Using the continuous scores from the three factors of the emotional eating scale (anger/frustration, anxiety, and depression) and the continuous scores from the sociocultural pressure scale, a significant relation was found between each of the three factors and sociocultural pressure. The results are as follows: anger/frustration, $r\ (102) = .34$, $p < .01$; anxiety, $r\ (102) = .31$, $p < .01$; and depression, $r\ (102) = .35$, $p < .01$. In addition, significant correlations (ranging from $r =$

.33 to .49) were observed between each of the emotional eating scale factors and bulimia symptoms. As expected, a significant relation was found between bulimia symptoms and anxious attachment, r (102) = .23, $p < .05$. Lastly, bulimia symptoms and sociocultural pressure were significantly correlated, r (102) = .30, $p < .01$. The effect sizes for the correlations all fell within the moderate range. The analyses failed to demonstrate significant relations between avoidant attachment and the variables of interest such as weight distortion, sociocultural pressure, or emotional eating. Means and standard deviations for each of the variables were reported in Table 2.

Moderation analysis. Moderation analysis was used to examine the relation between sociocultural pressure and eating disorder symptoms, specifically symptoms of anorexia and symptoms of bulimia. It was hypothesized that the association between sociocultural pressure and anorexia symptoms would be moderated by avoidant attachment to God. On the other hand, it was predicted that anxious attachment to God would moderate the relation between sociocultural pressure and bulimia symptoms. The moderation analysis for anorexia symptoms and avoidant attachment did not yield significant results, which was unsurprising given the non-significant zero-order correlations between anorexia symptoms, sociocultural pressures, and attachment to God. The limitations of this analysis are discussed later in the paper. There was, however, a significant moderation effect for bulimia symptoms by anxious attachment to God.

As presented in Table 3, a multiple linear regression was utilized to test the hypothesized moderation effect of anxious attachment to God on the association between sociocultural pressure and bulimia symptoms. In the first step, the z-scores of bulimia symptoms were regressed on the centered sociocultural pressure and anxious attachment

to God scores. Anxious attachment did not correlate with bulimia symptoms ($\beta = .18$, $p > .05$). However, sociocultural pressure did correlate with bulimia symptoms ($\beta = .27$, $p < .01$), and both anxious attachment and sociocultural pressure accounted for 12.2% of the variance in the bulimia symptoms scores ($R = .35$, $p < .01$, adjusted $R^2 = .11$). In the second step, the interaction term of sociocultural pressure and anxious attachment to God was computed. The R^2 change for the inclusion of the interaction term in the hierarchical model was significant, $F(1,98) = 8.4$, $p < .01$. To see a graphical depiction of these analyses please reference Figure 2.

A simple slopes test was then used to clarify the specific area of significance for the moderation effect. The simple slopes analysis was run using conditional values of attachment to God set at one standard deviation above and below the mean. The test was significant at both of the conditional values above and below the mean. However, the slope of the line between sociocultural pressure and bulimia symptoms for those one standard deviation above the mean on anxious attachment to God was about double ($b = .66$, $t = 3.93$, $p < .01$) the slope for those one standard deviation below the mean ($b = .314$, $t = 3.93$, $p < .01$). As can be seen in Figure 2, the relation between perceived sociocultural pressure and bulimia symptoms was stronger for women who were high on anxious attachment to God compared with women who were low on anxious attachment to God.

A moderation analysis was also run adding to the moderation regression equation described above: belief in God as a dichotomous covariate in Step 1, interaction terms for belief in God multiplied by anxious attachment and belief in God multiplied by sociocultural pressure in Step 2, and a three way interaction term multiplying belief in

God by anxious attachment to God by sociocultural pressure in Step 3. Neither belief in God nor any of the interaction terms were significant predictors, so belief in God was excluded from the final report of results. The non-significance of belief in God as a predictor or moderator indicates that the effect of sociocultural pressure on bulimia symptoms as moderated by anxious attachment to God is the same for those who do and do not believe in God.

Post-hoc analysis with emotional eating. After the completion of the proposed analyses, it was decided to probe the variable of emotional eating further due to significant correlational results related to each of the emotional eating variables. I included the three emotional eating factors (depression, anxiety, anger/frustration) as dependent variables and used multiple linear regressions to analyze the data similar to the previous moderation analyses. Though the results were only approaching significance, the results indicate that with a larger sample, a significant effect may be observed.

As presented in Table 4, multiple linear regressions were utilized to test the hypothesized moderation effects of anxious attachment to God on the relation between sociocultural pressure and emotional eating. A cumulative emotional eating score was not computed, instead each of the three factors was used as outcome variables in three separate regressions equations, yielding different results for the emotions of depression, anxiety, and anger/frustration. In the first step, the emotional eating factor scores were regressed on the centered sociocultural pressure and anxious attachment to God scores. Anxious attachment did not correlate with depressive eating ($\beta = .02$, $p > .05$), but sociocultural pressure did have a significant relation with depressive eating ($\beta = .33$, $p < .01$); the two accounted for 11.3% of the variance in depressive eating scores ($R = .35$, p

< .01, adjusted R^2= .10). Anxious attachment did not correlate with anxious eating (β = .10, p > .05), however sociocultural pressure did yield a significant correlation with anxious eating (β = .30, p < .01). Together they accounted for 10.7% of the variance in anxious eating scores (R = .33, p < .01, adjusted R^2 = .09). Anxious attachment did not correlate with angry/frustrated eating (β = .11, p > .05), but sociocultural pressure demonstrated a significant relation with angry/frustrated eating (β = .32, p < .01). Both accounted for 12.8% of the variance in angry/frustrated eating scores (R = .36, p < .01, adjusted R^2= .11).

In the second step, the interaction term of sociocultural pressure and anxious attachment to God was entered. The R^2 change for the inclusion of the interaction term in the hierarchical model for depressive eating was marginally significant, F(1,98) = 3.6, p = .06. To see a graphical depiction of these analyses please reference Figure 3. The R^2 change for the inclusion of the interaction term in the hierarchical model for anxious eating approached significance, F(1,98) = 3.5, p = .07. To see a graphical depiction of these analyses please reference Figure 4. Lastly, the R^2 change for the inclusion of the interaction term in the hierarchical model for angry/frustrated eating also approached significance, F(1,98) = 3.2, p = .08. To see a graphical depiction of these analyses please reference Figure 5.

Simple slopes tests were then used to clarify the specific areas of marginal significance for the moderation effects. Each of the simple slopes analyses was run using conditional values of attachment to God set at one standard deviation above and below the mean. For depressive eating, the test was significant at both of the conditional values above and below the mean. Though the scores were not standardized, the slope of the line

between sociocultural pressure and depressive eating for those one standard deviation above the mean on anxious attachment to God appeared large ($b = .87$, $t = 2.70$, $p < .01$), whereas the slope appeared only moderate for those one standard deviation below the mean ($b = .49$, $t = 3.57$, $p < .01$). Thus, the relation between perceived sociocultural pressure and depressive eating appeared to be marginally stronger for women who were high on anxious attachment to God compared to women who were low on anxious attachment to God.

For anxious eating, the simple slopes test approached significance at one standard deviation above the mean and was not significant for one standard deviation below the mean. The slope of the line between sociocultural pressure and anxious eating was not statistically significant one standard deviation below the mean ($b = .22$, $t = 1.66$, $p > .05$); the slope for those one standard deviation above the mean on anxious attachment to God was not significant, but was approaching significance ($b = .56$, $t = 1.86$, $p > .05$). The results surrounding anxious eating were more inconclusive. This suggests that sociocultural pressure does not necessarily have an impact on anxious eating like it does on depressive eating. Though neither of the simple slopes was significant, the zero order correlation between sociocultural pressure and anxious eating was, thus one possibility is that the anxious attachment variable was muddying up the moderation analysis making the results unclear. Another possibility was that some of the anxious eating emotions used in the EES could also have been classified as physical states that indicated actual hunger (e.g., When I feel shaky, it sometimes indicates I have not eaten enough, and I should eat). Thus, this may also be a reason for less consistent results for anxious eating.

Lastly, the test for angry/frustrated eating was found to be significant for both of the conditional values above and below the mean. However, the slope of the line between sociocultural pressure and angry/frustrated eating for those one standard deviation above the mean on anxious attachment to God appeared larger ($b = .81$, $t = 2.67$, $p < .01$) than for those one standard deviation below the mean ($b = .46$, $t = 3.54$, $p < .01$). Thus, the relation between perceived sociocultural pressure and angry/frustrated eating appeared to be stronger for women who were high on anxious attachment to God compared to women who were low on anxious attachment to God. Again, this effect was only approaching significance, so it should be interpreted with caution.

Discussion

The current study sought to determine whether a particular style of insecure attachment to God would be related to differential reporting of anorexia and bulimia symptoms. It was predicted that the combination of increased perceived sociocultural pressure and insecure attachment to God would be related to significantly more disordered eating symptoms. These assertions are partially corroborated. Supporting hypothesis one, women's anxious attachment to God is correlated with bulimia symptoms, and sociocultural pressure is significantly positively correlated with bulimia symptoms. However, the prediction that an avoidant attachment would be associated with anorexia symptoms (Hypothesis 2) did not yield significant results. This non-significant finding, and all subsequent non-significant findings that relate to anorexia symptoms (Hypotheses 2 and 3) may be due to the measure that was used to assess for anorexia symptoms. The variance amongst the questions that composed the anorexia subscale was small, and only four questions were used to assess anorexia symptoms. In addition, the

research supporting the association between avoidant attachment and anorexia behaviors was limited and primarily supported by individual cases (Tasca et al., 2011). Thus, it is unclear if the findings reflect at true null effect or if a significant effect was not found due to insufficient variance.

Hypothesis four predicted that women who perceive more sociocultural pressure and have an anxious attachment to God would score significantly higher on bulimia symptoms was supported. There was a significant interaction, and a simple slopes test of the moderation revealed that women who were low on anxious attachment but high on sociocultural pressure were significantly lower in reporting bulimia symptoms than women who were high on both bulimia symptoms and sociocultural pressure. These findings suggest that the combination of anxious attachment and sociocultural pressure adds a novel dimension. This combination of risk factors is the most toxic. The research of Wallston et al. (1999) on God locus of control helps to explain how this dimension might be functioning. A woman who is insecurely attached may see God as holding all of the power. In addition, she may experience God as non-responsive if she makes petitions and finds that they are not answered. Sociocultural pressure is another form of feeling that one is not in control. Thus, treatment that is not only focused on reducing symptoms and sociocultural pressure but is also focused in developing a secure attachment relationship with a woman's God figure may lead to more holistic care and long-lasting remission of eating disorder symptoms. As expected after finding non-significant Pearson correlations, the moderating effects of an avoidant attachment style on anorexia symptoms produced non-significant results.

To address hypothesis five, significant correlations were found between each of the three Emotional Eating Scale (EES) factors—anger/frustration, anxiety, and depression—and bulimia behaviors. Furthermore, sociocultural pressure was also significantly positively correlated with each EES factor as well. The results not only support previous research on emotional regulation and bulimia behaviors (Berg et al., 2013; Hayaki, 2009), but they also add novel information about particular risk factors with which emotional regulation difficulties might be associated, such as sociocultural pressure and anxious attachment to God, thus leading to symptoms of bulimia.

As the study progressed, I became increasingly interested in the role of emotional eating, bulimia symptoms, and anxious attachment to God. I decided to further probe how emotional eating might be related to anxious attachment to God. Though none of the emotional eating variables had significant zero-order correlations with attachment to God, they did with sociocultural pressure. Thus, emotional eating was entered as the dependent variable in the previously used moderation analysis. The results did not yield significant results, though some were found to approach significance, which indicates a possible role of anxious attachment to God in emotional eating. In future research, it would be most fruitful to explore the possibility that emotional eating mediates the moderating effect of anxious God attachment on the relation between sociocultural pressure and bulimia symptoms.

Limitations and Future Directions

A primary limitation of this study is the four-question anorexia scale on the EDDS. Anorexia symptoms had no significant correlations with any other study variables, and avoidant God attachment was only significantly related to anxious God

attachment. Thus, it was unsurprising that hypotheses related to anorexia symptoms and avoidant attachment yielded non-significant results. Rather than interpreting the non-significant results as evidence of a null effect, I maintain that the study was inadequate to test the hypotheses related to anorexia and avoidant attachment for two reasons. First, the measure for anorexia symptoms had limited variance because it was dichotomized and was based on only BMI and two items related to weight distortion. Second, accounting for BMI in the measurement of anorexia symptoms made it less likely to detect anorexia symptoms in women who were not underweight. Given that only 5% of participants were underweight and 33% were obese, I would expect very low occurrence of anorexia symptoms in the sample.

Although it is most likely that the non-significant results reflect measurement issues, it is also possible that the relation between avoidant attachment to God and anorexia symptoms is not replicable. Research supporting the association between avoidant attachment and anorexia symptoms was limited and primarily based on individual case studies (Tasca et al., 2011). It is ultimately indeterminate if the findings reflect a true null effect or if I was unable to find effects due to measurement and sampling issues. Future studies should utilize more robust measures of anorexia symptoms and recruit samples with higher risk for anorexia.

In addition, there are a few other limitations and avenues for future research that warrant consideration. First, the sample used in this study was drawn from the general population of adult women, and recruitment did not target specific sub-populations at risk for developing eating disorders. This sampling strategy was a strength in that results are more generalizable to women of all ages rather than just to college undergraduates.

However, this sampling approach means that the analyses predict symptoms of eating disorders—not the actual occurrence of eating disorders. It is important to refrain from over-interpreting these findings as predictors of diagnosable eating disorders. Future research should replicate the study effects in a sample that has a large number of participants with diagnosable eating disorders.

Another limitation of the present study was that I did not assess participants' attachments to parents or romantic partners. Previous research has shown that attachment to God may correlate to other attachment relationships (Granqvist & Kirkpatrick, 2008), so results would be more compelling if it could be shown that attachment to God affected disordered eating even after accounting for the security of other attachment relationships. However, previous studies have demonstrated the distinctiveness of attachment to God versus other attachment figures (Beck & McDonald, 2004). Further, the compensation hypothesis asserts that secure attachment to God may actually compensate for insecure human attachment relationships (Granqvist & Kirkpatrick, 2008). Thus, it is reasonable to assume that the effects for attachment to God are at least partially specific to the deity relationship and are not just a reflection of a general attachment style.

Despite these limitations, the regression analyses support the importance of exploring the role of attachment to God in the prevention and treatment of eating disorders and disordered eating symptoms, in general. In future research, it would be advantageous to draw upon a sample of men and women who are more at risk for displaying these behaviors (e.g., eating disorder patients, high school and college aged students, gay men), though it is striking that significant results were found in a sample that appears generalizable to the larger population.

In addition, a unique aspect of this study was the notable proportion of participants (just over a 1/3) who did not endorse belief in God and identified as atheist or agnostic. Although it may seem counter-intuitive to assess attachment to God in people who do not claim belief in a deity, previous research has demonstrated that people who do not believe in God still hold mental representations of God that affect their behaviors, emotions, and cognitions (Exline et al., 2011; Laurin, Kay, & Fitzsimons, 2012). Particularly in cultures with high rates of religiousness, such as the United States, internal representations of God (e.g., internal working models of an attachment relationship with God) may be chronically activated by the environment, thus affecting behavior and emotions despite explicit non-belief.

I tested whether belief in God modified the moderation effect of anxious attachment to God on the relation between sociocultural pressure and bulimia symptoms. Results indicated that there were no differences in effects for participants based on their belief in God. Lower levels of anxious attachment to God buffered against the effects of sociocultural pressure on bulimia symptoms for believers and non-believers alike. However, participants who did not endorse belief in God had lower average levels of anxious attachment to God than believers (although there was still ample variance in scores for non-believers). Altogether, these findings would indicate that anxious attachment to God still moderates the effect of sociocultural pressure on bulimia for non-believers, but non-believers are less likely to have high anxious attachment.

One caveat in the interpretation of these findings for non-believers relates to the conceptualization and measurement of God attachment. The Attachment to God Inventory (like other measures of adult attachment) does not directly assess attachment

security; rather, it assesses the presence of attachment insecurity in the form of anxious or avoidant attachment to God. An assumption of the measure is that low scores on avoidant and anxious attachment indicate a secure attachment relationship. However, when a non-believer scores low on anxious attachment to God it may not mean she has a secure relationship with God; instead, it may indicate that she has no real relationship with God about which to feel anxiety. This ambiguity is a limitation of the current modus operandi for assessing the security of attachment relationships.

Finally, there were many questions that arose due to the results of the post hoc analyses regarding the clinical implications of emotional regulation and its relation to emotional eating, sociocultural pressure, and attachment to God. Correlations between the EES and anxious attachment suggest that treatment including a focus on emotional regulation would be beneficial, particularly for women who are presenting with symptoms of bulimia. This is further supported by the marginally significant moderation analyses with emotional eating set as the dependent variable. Though the moderations were only approached significance, the general trend seems important, and the post hoc analyses indicate that this might be a fruitful line of inquiry for future studies.

Clinical Implications

It appears, overall, that a woman's anxious attachment to God is not a significant risk factor in developing eating disorder symptoms unless she is also experiencing sociocultural pressure. Sociocultural pressure was found to significantly correlate with each of the emotional eating factors driving home the point that external factors (e.g., media ideals of the body, pressure from friends and family, specific careers or extracurricular activities) serve an important role in the development of disordered eating

symptoms. Though the direct mechanism was not explored in this study, it is possible that women who are able to tolerate feeling inadequate, discouraged, and helpless are less likely to engage in emotional eating. Thereby, they are less likely to internalize the thin ideal that is promoted by their friends, family, and culture when they feel loved by God and assured of God's acceptance of their body type no matter what it looks like to the outside culture. The role of anxious attachment to God in predicting bulimia symptoms demonstrates the importance of utilizing attachment-based psychotherapy in the treatment of these symptoms.

The results suggest that continuing remission of bulimia symptoms may be possible with the development of a secure attachment relationship with a client's God figure. Though these results should be tested with future studies, it seems important that initial assessments include questions regarding the client's spiritual life and relationships or that attachment to God is further probed if the client initiates the conversation. It is possible that an insecure attachment to God may be more easily changed than parental attachment because parents may be unresponsive to their daughter's attempts at healing and closeness in their relationship. Thus, though a woman may have poor human attachments, she may be able to draw upon her faith tradition and relationship with her god figure to aid in compensating for strained human relationships. Finally, if it is determined during treatment that a woman has a secure attachment to God, this should be capitalized on as a personal strength and resource for treatment of bulimia symptoms.

Simple slopes test demonstrate that even when women have a secure attachment to God, they are still susceptible to sociocultural pressures in relation to their bulimia symptoms. Thus, even with clinicians' best efforts to aid clients in strengthening a secure

attachment with their god figure, the findings suggest that this cannot completely ameliorate the effects of sociocultural pressure. Further, the relation between emotional eating, in particular depression and anxiety, and sociocultural pressure speaks to the importance of paying attention to the client's social context. External factors are serving as significant risk factors, requiring a change in culture, not just the client. This seems to indicate that eating disorders are a symptom of a distorted culture—not just individual pathology or attachment insecurity. Although a non-anxious attachment to God appears to serve as a protective factor in the development and display of binging and purging behaviors, the social environment is playing a role too.

This leads to another discussion point regarding the role of religious institutions and communities in promoting pressure to be thin and perfect. As stated previously, religion and spirituality have sometimes been shown to have negative effects on a woman's body image through negative views of the body and aestheticism, which can lead to an increase in disordered eating behaviors (Boyatzis & Quinlan, 2008; Forthun et al., 2003; Joughin et al., 1992). Given the current finding that a secure relationship with God cannot completely ameliorate the negative effects of sociocultural pressures on bulimia symptoms, it seems important to extend the examination beyond just a woman's relationship with God and on to the context and culture of faith communities. Many religious groups and communities may create their own types of sociocultural pressure because food is often equated with morality (e.g., "Dessert is sinful"). Religion and eating behaviors have found themselves merged in Western culture, and religious groups may or may not be propagating these messages. Thus, religious communities should be mindful of the types of sociocultural pressure they create or propagate in relation to body

image and eating disorders. Many religions have their own dietary restrictions, or commitments to consistent fasting from food as a spiritual discipline. Although these practices in and of themselves are not grounds for diagnosable eating disorders, certain congregants may be at risk for developing disordered eating behaviors out of these practices.

Churches can be a valuable resource for people vulnerable to developing disordered eating. Religious communities can aid in fostering secure attachments to God by offering counseling services and forwarding an image of God that is gracious, forgiving, and trustworthy. In addition, suggestions of feasting and celebration should also be emphasized when speaking of eating in the context of the church community. Finally, it seems essential, given the results of this study that religious communities can increase their intentionality in forwarding positive sociocultural pressures and norms that counteract the Western cultural narrative about beauty and bodies.

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Table 1

Descriptive Statistics for Demographic Variables (*N* = 102)

Variable	*N*	*%*
Ethnicity		
Caucasian	89	87.2
African American	7	6.7
West Indian	1	1.0
Latino	2	2.0
Asian American	3	3.0
Sexual Orientation		
Heterosexual	83	81.4
Gay	2	2.0
Bisexual	16	15.7
Asexual	1	1.0
Education		
Some high school	0	0.0
High school graduate	14	13.7
Some college	37	36.3
Associate's degree	11	10.8
Technical degree	0	0.0
Bachelor's degree	27	26.5
Some graduate school	4	3.9
Master's degree	9	8.8
Doctorate	0	0.0
Socioeconomic Status		
Below 25,000	29	28.4
25,000-49,000	39	38.2
50,000-74,999	22	21.6
75,000-99,999	10	9.8
100,000 or greater	1	1.0
Religious Affiliation		
Christian	45	44.1
Atheist	28	27.5
Agnostic	17	16.7
Pagan	3	3.0
Buddhist	3	3.0
Spiritual	5	5.0
Hindu	1	1.0