



2007-12-07

# Women's Perceptions of Parents, Peers, Romantic Partner and God as Predictive of Symptoms Severity Among Women in Treatment for Eating Disorders at an Inpatient Facility

Samuel B. Tobler

*Brigham Young University - Provo*

Follow this and additional works at: <https://scholarsarchive.byu.edu/etd>

 Part of the [Counseling Psychology Commons](#), and the [Special Education and Teaching Commons](#)

---

## BYU ScholarsArchive Citation

Tobler, Samuel B., "Women's Perceptions of Parents, Peers, Romantic Partner and God as Predictive of Symptoms Severity Among Women in Treatment for Eating Disorders at an Inpatient Facility" (2007). *All Theses and Dissertations*. 1266.  
<https://scholarsarchive.byu.edu/etd/1266>

This Dissertation is brought to you for free and open access by BYU ScholarsArchive. It has been accepted for inclusion in All Theses and Dissertations by an authorized administrator of BYU ScholarsArchive. For more information, please contact [scholarsarchive@byu.edu](mailto:scholarsarchive@byu.edu), [ellen\\_amatangelo@byu.edu](mailto:ellen_amatangelo@byu.edu).

PERCEPTIONS OF PARENTS, PEERS, ROMANTIC PARTNER AND  
GOD AS PREDICTIVE OF SYMPTOM SEVERITY AMONG WOMEN  
IN TREATMENT FOR EATING DISORDERS

By

Samuel B. Tobler

A dissertation submitted to the faculty of

Brigham Young University

in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

Department of Counseling Psychology and Special Education

Brigham Young University

August 2007

## ABSTRACT

### PERCEPTIONS OF PARENTS, PEERS, ROMANTIC PARTNER AND GOD AS PREDICTIVE OF SYMPTOM SEVERITY AMONG WOMEN IN TREATMENT FOR EATING DISORDERS

Samuel B. Tobler

Department of Counseling Psychology and Special Education

Doctor of Philosophy

The present study examined whether perceptions of parents, peers, romantic partners and God were predictive of eating disorder symptom severity among women in treatment for eating disorders. The sample included 417 women (ages 12 to 56 years) at an inpatient treatment facility for eating disorders. Participants completed a battery of assessment measures at intake and discharge. Change scores were also computed on all measures. Measures included indices of eating disorder symptomology, parental relationships, peer relationships, romantic partner relationships, and religious well-being. Multiple regression analysis showed perceptions of peers and romantic partner to be significant predictors in all analyses; however perceptions of God failed to predict eating disorder symptom severity in all but one analysis. Differences between perceptions of mothers and fathers were also found. Implications and recommendations for future research are discussed.

## TABLE OF CONTENTS

INTRODUCTION .....	1
Statement of Purpose .....	3
Research Questions .....	3
Research Question #1 .....	3
Research Question #2 .....	4
Research Question #3 .....	4
Research Question #4 .....	4
Research Question #5 .....	4
Research Question #6 .....	5
Research Question #7 .....	5
Research Question #8 .....	5
Research Question #9 .....	5
Research Question #10 .....	5
Importance of the Study.....	5
Literature Review .....	7
The Prevalence and Impact of Eating Disorders .....	7
The Etiology of Eating Disorders in Women .....	9
Biological Factors .....	9
Sociocultural Factors .....	10
Demographic Factors .....	11

Individual Factors . . . . .	11
Negative Life Events . . . . .	11
Self-esteem . . . . .	12
Personality Factors . . . . .	13
Cognitive-Behavioral Factors . . . . .	14
Familial Factors . . . . .	15
A Relational View of Eating Disorders . . . . .	17
Self-In-Relations Theory . . . . .	18
Object Relations Theory . . . . .	20
Attachment Theory . . . . .	21
Review of Concepts . . . . .	22
Personality Correlates . . . . .	23
Attachment Relationships in Adolescence and Adulthood . . . . .	25
Psychological Affects of Attachment Disruption . . . . .	28
Application of Attachment Theory . . . . .	30
Perceptions of Parents and Eating Disorders . . . . .	31
Perceptions of Peers and Eating Disorders . . . . .	32
Perceptions of Romantic Partner and Eating Disorders . . . . .	32
Relationships with God and Eating Disorders . . . . .	33
METHODS . . . . .	34
Participants . . . . .	34
Procedures . . . . .	35
Measures . . . . .	35

Spiritual Well-being Scale . . . . .	36
Attitudes Toward Father and Mother Scales . . . . .	37
Parental Acceptance-Rejection Questionnaire . . . . .	37
The Interpersonal Relationship scale of the OQ-45 . . . . .	38
Eating Attitudes Test (EAT) . . . . .	39
Research Design . . . . .	40
Statistical Analysis . . . . .	40
RESULTS . . . . .	41
Research Question #1 . . . . .	41
Research Question #2 . . . . .	41
Research Question #3 . . . . .	41
Research Question #4 . . . . .	44
Research Question #5 . . . . .	44
Research Question #6 . . . . .	44
Research Question #7 . . . . .	45
Research Question #8 . . . . .	46
Research Question #9 . . . . .	47
Research Question #10 . . . . .	48
DISCUSSION . . . . .	51
Findings . . . . .	52
Conclusions . . . . .	58
Methodological Strengths . . . . .	60
Limitations of the Study . . . . .	60

Recommendations for Future Research . . . . .	61
REFERENCES . . . . .	63

## LIST OF TABLES

TABLE 1:	Descriptive Statistics for Study Measures . . . . .	42
TABLE 2:	Correlations Between Relationship Measures and the Symptom Severity Measure. . . . .	43
TABLE 3:	Regression Analysis for Predicting the Symptom Severity Measure at Intake from Relationship Measures at Intake . . . . .	45
TABLE 4:	Regression Analysis for Predicting the Symptom Severity Measure at Discharge from Relationship Measures at Discharge. . .	46
TABLE 5:	Regression Analysis for Predicting Change in the Symptom Severity Measure from Relationship Measures at Intake . . . . .	47
TABLE 6:	Regression Analysis for Predicting Change in the Symptom Severity Measure from Relationship Measures at Discharge . . . . .	49
TABLE 7:	Regression Analysis for Predicting Change in the Symptom Severity Measure from Change in Relationship Measures . . . . .	50



## INTRODUCTION

Eating disorders, such as anorexia and bulimia nervosa, have received a great deal of media and research attention since the late 1960s. Despite this attention, eating disorders continue to be one of the most common psychiatric problems confronted by young women today. In light of the prevalence of eating disorders, studies continue to focus on identifying factors associated with etiology, treatment, and outcome, including research evaluating the efficacy of various forms of treatments.

Theory and research alike suggest that relationships are an important factor related to eating disorders in women. Early on, theorists interested in female development, such as Chodorow (1978), Gilligan (1982, 1990), Jordan (1986, 1995), Miller (1976, 1984, 1986, 1988, 1991) Stern (1990, 1991) and Surrey (1983), emphasized the importance of relationships in the identity development and healthy psychological growth of women. Building on this notion, feminist theory, object relations theory, attachment theory, and other theories contend that women's significant relationships play a role in the development and continuance of eating disorders. In a general sense, these relational theories of disordered eating argue that involvement in an empathetic and connected relationship is core to women's development and, thus, is essential to their well-being and emotional health. In addition, women's disconnection with others and disruptions that occur in significant relationships are seen as key factors that predispose, precipitate, and perpetuate disordered eating among women (Tantillo, 2000).

Despite a growing number of articles in this area, the relationship between eating disorders and women's relationships with others remains unclear. Although research in this area, as a whole, provides considerable evidence for a connection between women's perceptions of

their relationships and eating disorders, an overview of the current literature demonstrates a number of problems. One limitation of past studies is the tendency to focus on parent-child relationships. Although this research has been informative, showing a significant relationship between women's perceptions of their relationship with their parents and eating disorders, it fails to recognize the influence of other relationships (such as peer relationships, one's relationship with God, or one's relationship with a romantic partner). It is possible that a stronger relationship exists between relationships and eating disorders.

More recent research has examined the role of other relationships in the development and maintenance of eating disorders, demonstrating that girls' and young women's relationships with peers, romantic partners, and God also play a role in the development of eating disorders. Despite the importance of this new research, few studies examine the impact of multiple relationships on eating disorders; those that do generally emphasize peer relationships in addition to parent-child relationships. Accordingly, although research has highlighted a number of relationships that seem to be of particular importance in the development of eating disorders (parent-child relationships, peer relationships, romantic relationships, and relationships with the Deity), a lack of agreement exists concerning which relationships seem to be most influential and how they work together to influence disordered eating. Thus, O'Kearney's (1996) criticism of research in the field as being lacking in its rigor of methods seems appropriate. O'Kearney further indicated that such research lacks conceptual sophistication in most models. Along these lines, most research examining the role of relational factors in eating disorders fails to account for other factors that may serve as predictors of eating disorders, such as age of onset, history of sexual abuse, or co-morbid diagnoses.

Thus, while various types of relationships have been implicated in the literature on eating disorders, to date apparently no studies have investigated the unique role that each of these relationships plays in eating disorders. At best, studies have examined two of these relationships conjointly. In addition, few studies have compared the role of relationships in connection to other predictive factors. The present review discusses the eating disorder literature, research related to the role of relationships in eating disorders, and the relevance of the present investigation.

#### *Statement of Purpose*

The present study aims to examine the relationship between eating disorder symptom severity (as measured by the Eating Attitudes Test, Garner & Garfinkel, 1979) and women's perceptions of significant relationships. Specifically this study examines the relationship between eating disorder symptom severity and women's perceptions of parental relationships (as measured by the Attitude Toward Father and Mother scales, Hudson, 1982, and the Parental Acceptance-Rejection Questionnaire, Ronhner, 1991), women's perceptions of their relationships with peers and romantic partners (as measured by the Outcome Questionnaire-45, Lambert, Lunnen, Umphress, Hansen, & Burlingame, 1994) and women's perceptions of their relationship with God (as measured by the Spiritual Well-Being Scale, Paloutzian & Ellison, 1982) within a sample of women with eating disorders.

#### *Research Questions*

##### *Research Question #1*

What are the zero-order correlations between the relationship measures and the symptom severity measure at intake? Theory and research suggest that scores on the relationship measures

suggestive of a positive view of one's relationships would correlate with decreased scores on the symptom severity measure.

*Research Question #2*

What are the zero-order correlations between the relationship measures and the symptom severity measure at discharge? Given the relationship between relationships and eating disorders, scores on the relationship measures suggestive of a positive view of one's relationships should correlate with a greater change in the symptom severity measure between intake and discharge.

*Research Question #3*

What are the zero-order correlations between the relationship measures at intake and changes in the symptom severity measure? Again, theory and research suggest that scores on the relationship measures suggestive of a positive view of one's relationships would correlate with decreased scores on the symptom severity measure.

*Research Question #4*

What are the zero-order correlations between the relationship measures at discharge and changes in the symptom severity measure? Scores on the relationship measures indicative of a positive view of one's relationships should correlate with a greater change in the symptom severity measure between intake and discharge.

*Research Question #5*

What are the zero-order correlations between changes in the relationship measures and changes in the symptom severity measure? Changes in scores on the relationship measures should correlate with changes in the symptom severity measure.

*Research Question #6*

In the presence of one another, which relationship measures predict the symptom severity measure at intake?

*Research Question #7*

In the presence of one another, which relationship measures predict the symptom severity measure at discharge?

*Research Question #8*

In the presence of one another at intake, which relationship measures predict change in the symptom severity measure?

*Research Question #9*

In the presence of one another at discharge, which relationship measures predict change in the symptom severity measure?

*Research Question #10*

In the presence of one another, which changes in relationship measures predict change in the symptom severity measure?

*Importance of the Study*

Although numerous studies have been examined the relationship between women's perceptions of parent-child relationships and eating disorders, few studies have examined the unique contributions of multiple relationships (parent-child, peer, romantic, and with God) to eating disorder symptom severity. The proposed study aims to add to the present understanding of the role of significant relationships in eating disorders by examining the unique contribution of multiple relationships. The literature suggests that each of these relationships plays a

significant role in the development and maintenance of eating disorders. Thus, this research will allow researchers and practitioners to better understand the role of significant relationships in eating disorders. Furthermore, this research may provide some indication as to the relative importance of these different relationships in relation to one another.

In addition to examining the role of multiple relationships to eating disorder symptom severity, this study is unique in that it consists of a larger sample of clinical cases of eating disorders, whereas most other studies are of non-clinical populations, such as college students. Furthermore, the present investigation comprised a larger sample of individuals receiving inpatient treatment for eating disorders, as opposed to investigations of individuals in outpatient care. Consequently, potentially important differences may arise related to eating disorder severity, and an investigation including a larger number of severe eating disorder cases allows more conclusive statements to be made about this population.

## LITERATURE REVIEW

To provide a clear representation of the constructs central to the current study, it is important to begin with a basic definition of the constructs. Thus, the literature review will begin by defining eating disorders and move to a discussion of the prevalence rate and etiology of eating disorders. Attachment will also be defined and discussed, including a brief historical background in the field of attachment theory. After this discussion, the rationale for using attachment relationships in the study of eating disorders will be discussed.

Defining these constructs is not an easy task because no clear consensus exists of their definition. Providing a concise definition and description of eating disorders is difficult for a number of reasons. First, several types of eating disorders are recognized within the mental health field, all of which overlap somewhat with each other. In addition, differences in methods of assessment and diagnoses have been established for each type of eating disorder. Consequently, it is particularly difficult to make comparisons between various studies because of differences in research design, measures used, and criteria used. In regards to attachment, researchers vary in both their method of classification and measurement of attachment.

### *The Prevalence and Impact of Eating Disorders*

The literature seems to indicate some confusion concerning the prevalence of anorexia nervosa, bulimia nervosa, and other eating disorders. The best explanation for this confusion relates to the different criteria the various studies use to identify individuals with such eating disorders. Some of this variation stems from the changing criteria within the Diagnostic and Statistical Manual of Mental Disorders (DSM) itself. The current issue of the DSM indicates that the prevalence rate is approximately 1 percent for anorexia nervosa and 3 percent for bulimia

nervosa (APA, 2000; Kashubeck-West, 2001). A number of other individuals suffer from less severe eating disorders, such as binge eating disorders and eating disorders not otherwise specified (NOS). Indeed, eating disorders affect thousands of individuals within the United States. Epidemiological studies have indicated that eating disturbances are rather common in the general population, but are particularly widespread among adolescent and young adult women (Snelling, Schaeffer, & Lehrhoff, 2002). For instance, surveys of young women in the general population indicate that between 35 and 45 percent of women feel guilty after routine eating (Langer, Warheit, & Zimmerman, 1991).

Although eating disorders are not gender specific, differences in prevalence rates do seem to be apparent. For example, the DSM-IV indicates that roughly 90 percent of individuals with eating disorders in clinical populations are female (APA, 1994). These disorders also seem to be most prevalent among adolescents and young adult women, with the average age of individuals with eating disorders being in the early 20s (Lachenmeyer & Muni-Brander, 1988). For instance, one study of a sample of college-aged women found that 15 percent suffered from bulimia (Halmi, Falk, & Schwartz, 1981).

The extent of the problem seems to be more severe when considering the impact on individuals suffering from bulimia. Bulimia, like other eating disorders, is chronic in nature and involves a great deal of pain and suffering. Bulimia sufferers experience enormous shame and guilt. Furthermore, bulimia often results in diminished personal, interpersonal, financial, and medical functioning. In addition, individuals suffering from bulimia often experience weakness, abdominal pain and discomfort, bowel irregularities, fertility problems, and dental decay (APA, 2002).



### *The Etiology of Eating Disorders in Women*

Since anorexia nervosa was first recognized as a disorder by British psychiatrist Bull (1888) and French physician Laseque (1873), a number of theories have been put forth regarding the etiological antecedents of eating disorders. Taken as a whole, these etiological models suggest that the etiology of eating disorders is multidimensional (Steiger, Leung, Puentes-Neuman, & Gottheil, 1992; Steiger, Stotland, Ghadirian, & Whitehead, 1995). One reason for describing bulimia as multifaceted is the great deal of overlap in the variables proposed by various models (Striegel-Moore, 2001). Thus, eating disorders can best be understood by taking into account the role of biological influence, socio-cultural factors, individual influence, and familial factors.

#### *Biological Factors*

One biological factor that has been implicated in the development of eating disorders is individual neuro-physiology. Many individuals suffering from eating disorders describe feeling out of control. Consequently, many physiologists and neurologists have suggested a neuro-physiological basis for the disorder. Some have suggested this is the reason some individuals with eating disorders benefit from pharmacological treatment (Bacaltchuk, Trefiglio, Oliveira, Lima, & Mari, 1999; Palmer, 2000).

Family and genetic studies of eating disorders seem to provide additional credit to the notion of a neuro-physiological basis. In general, studies have been able to find consistent eating disorder aggregates within families. In her review of studies in this area, Striegel-Moore (2001) noted that several studies indicate that genetic factors play a considerable role in the etiology of these disorders.

### *Socio-cultural Factors*

Researchers have identified socio-cultural variables as important factors influencing eating disorder attitudes and behaviors (Akan & Grilo, 1995; Bernen & Chrisler, 1990; Hesse-Biber & Barino, 1991). The socio-cultural factors most often implicated in the development of eating disorders are societal ideals of body shape and weight. Abrams, Allen, and Gray (1993) argue that women who develop eating disorders have internalized the specific values of thinness and beauty as the central determinate of their worth. Wilson and Pike (1993) note, “Current cultural milieu defines the ideal female body shape as slim and lithe, and women experience considerable pressure to conform to this physical ideal” (p. 281). This pressure comes not only in the form of societal demands, but is communicated at a young age through female sex-role socialization in the family. Consequently, a large portion of women in the United States turns to dieting to influence their body weight and shape. Perceived pressure from one’s cultural groups seems to be so influential in the development of eating disorders that studies have found a correlation between cultural pressure to be thin and the prevalence of eating disorders (Garner, Fairburn, & Davis, 1987; Levine, Smolak, & Hayden, 1994; Wilson & Pike, 1993).

Building on the notion of society’s ideal, some have argued that underlying this ideal are deep cultural beliefs about the opposition of the mind and body, with the body being associated with the female. Accordingly, the pursuit of this ideal—and the eating restraint associated with it—may represent impulses to control and perfect what has often been viewed as imperfect and out of control (Palmer, 2000). Thus, eating disorders may fall along a continuum related to the struggle many individuals face in trying to control their impulses to eat, with anorexia falling at one end of this continuum and bulimia at the other.

### *Demographic Factors*

A number of demographic variables have proven to be predictive of favorable treatment outcomes among individuals with eating disorders. As such, they may also be associated with less symptom severity. Those variables that have been demonstrated to relate to favorable outcome include age of onset (Steinhausen, Rauss-Mason, & Seidel, 1991; Yager, 1989), lack of comorbid diagnosis or lack of mixed diagnosis (Kennedy & Garfinkel, 1992; Wilfley & Cohen, 1997), and lack of history of childhood sex abuse or other trauma (Palmer, 1995).

### *Individual Factors*

A number of individual factors have been implicated as possible correlates of eating disorders, including negative life events, disturbances in self-perception, autonomous functioning and cognitive style, low self-esteem, obesity, high public self-consciousness, depression, anxiety, negative body image, poor self-control and emotional stability, and a great need for validation from others (Beren & Chrisler, 1990; Calam & Waller, 1998; Dunn & Ondercin, 1981; Garner et al., 1987). Others have highlighted specific personality characteristics or cognitive styles associated with eating disorders.

*Negative life events.* Miller, William, and Summers (2000) note that individuals with eating disorders tend to experience more negative life events, which might include factors such as family problems or disruption, trauma, sexual/physical abuse, and other life difficulties. Family difficulties will be discussed in greater detail in a later section, but it is important to note their impact here.

In related research, Fairburn, Welch, Doll, Davies and O'Conner (1997) compared individuals with bulimia to healthy and psychiatric control groups. The researchers found that

individuals suffering from bulimia experienced more parental depression, alcoholism, and drug abuse; parental arguments, criticism, under involvement, and high expectations; low parental contact; and more critical comments about shape, weight, or eating from their families. Other research suggests that instances of sexual abuse occur in 35 to 65 percent of women with eating disorders (Bulik, Sullivan, & Rorty, 1989). Some note that disturbances in normal eating patterns occur soon after sexual assault (Brickman & Briere, 1984). The effects of such negative life events can be far-reaching and long-lasting. In addition to creating a great deal of stress, these events tend to tax even the healthiest attachment system and can lead to attachment disruption.

*Self-esteem.* Difficulties with self-esteem have been noted with most individuals suffering from eating disorders, who maintain a poor view of themselves because they believe an important aspect is lacking or that they are lacking in general. For individuals suffering from eating disorders, this is also likely tied into their pursuit of slimness and becomes a factor in the development of the eating disorder. Palmer (2000) notes, “Low self-esteem, slimming and ‘failure’ to achieve the goals of slimming each come to form part of a circular mechanism in which both restraint and problems of self-esteem are increased in strength” (p. 49). In a review of literature in this area, Ghaderi (2001) noted that low self-esteem (and other factors) puts women at greater risk for the development of an eating disorder. In addition, self-esteem serves to maintain eating disorders. Other studies have found the development of bulimia was predicted by perfectionist tendencies and body dissatisfaction for women with low self-esteem, but not for women with high self-esteem (Joiner, Heatherton, Rudd, & Schmit, 1997; Vohs, Bardone, Joiner, Abramson, & Heatherton, 1999; Vohs et al., 2001).

*Personality Factors*

Weston and Harnden-Fischer (2001) note that, “Clinical observation has long suggested a link between personality and eating disorders” (p. 547). Personality traits associated with eating disorders include perfectionism, rigidity, shyness, compliance, and anxiety. A number of models have been developed around different personality factors. One such model is the anxiety model of bulimia. According to this model, the purging phase of bulimia is maintained through anxiety reduction (Craighead, 1985). The reduction in anxiety/tension produced by purging can be both psychological and physiological. Psychologically speaking, anxiety is reduced because the individuals know that they are relieving themselves of unwanted calories by purging. Furthermore, purging eliminates the physiological tension/discomfort that builds up while eating excessive amounts of food. These two factors may well explain the euphoric feeling many individuals suffering from bulimia report after purging. The relationship between bulimia and anxiety seems a plausible one because studies have shown individuals with bulimia to be more emotionally reactive than other individuals (Palmer, 2000).

The emotional reactivity of individuals with eating disorders is tied to another model that focuses on the relationship between personality disorders and eating disorders. Weston and Harnden-Fischer (2001) note that, “Research on personality disorders has also examined the relation between eating disorders and personality and has documented considerable, but highly variable, rates of comorbidity, ranging from 21% to 97% for the presence of any personality disorder in patients with various eating disorder diagnosis” (p. 547; see also Palmer, 2000).

The most plausible explanation of the relationship between eating disorders and personality disorders is that disruptive eating behavior associated with eating disorders is an

expression of personality pathology (Weston & Harnden-Fischer, 2001). According to this view, a common genetic or environmental diathesis likely underlies both eating disorders and personality disorders. Weston and Harnden-Fischer further note that some research backs this explanation. For instance, one theory links the personality pathology in eating disorders, particularly bulimia nervosa, to a neurotransmitter dysregulation connected with impulsivity. This dysregulation is associated with such behaviors as stealing and substance abuse. In addition, it may explain greater rates of borderline personality disorder and mood disorders among bulimic individuals (Weston & Harnden-Fischer, 2001). The results from Weston and Harnden-Fischer's study on this hypothesis indicate the following:

When patients with bulimic symptoms (with or without a history of anorexia) are more disturbed, they tend to be emotionally dysregulated, under controlled, and impulsive. They experience intense, poorly regulated emotions, and they tend to fly into rages. Rather than fleeing relationships to escape dysphoria (as in the case with the low-functioning anorexic patients), they desperately seek relationships to soothe themselves when they cannot regulate their own emotions. For these patients, eating disordered symptoms appear to be one more instance of impulsive behavior designed to regulate poorly modulated affect. (p. 558)

### *Cognitive-Behavioral Factors*

The cognitive behavioral approach to eating disorders portrays bulimia as a vicious cycle of dietary restraint, binge eating, and subsequent compensatory behavior. A central assumption of cognitive behavioral therapy (CBT) is that initial concern about weight and shape is a key factor. For individuals suffering from eating disorders, the concern about weight is compounded

by low self-esteem and results in dietary restraint (Stein, Saelens, Douchis, Lewczyk, Swenson, & Wilfley, 2001). According to this approach, excessive dieting that develops from the concern about weight is the “behavior” that triggers problems with bingeing (Craighead, 1995); the increased hunger and deprivation associated with this restraint (dieting) ultimately leads to binge eating. Stein et al. (2001) note that, “these problematic cognitions, attitudes, and behaviors solidify into a continuing cycle of binge eating and compensatory behavior (usually self-induced vomiting) that characterizes BN. A more recent CBT model adds negative affect as a potential independent contributor to disinhibition and subsequent binge eating episodes” (p. 704).

#### *Familial Factors*

It is generally accepted that the family is a crucial factor in the etiology of eating disorders. Some family systems theorists have argued that problems such as parental separation-individuation play a role in the development of eating disorders (Friedlander & Siegel, 1990; Minuchin, Rosman, & Baker, 1987). Many argue that young girls are socialized to value interpersonal relationships; societal pressures compel them to give up their relationship with their parents in the pursuit of autonomy (Steiner-Adair, 1989). While working to obtain autonomy, tremendous pressures are placed upon them to engage in interpersonal relationships with the opposite sex (Olson & DeFrain, 1994). Such increased pressure to engage with boys frequently leads to increased consciousness about body image (Gralen, Levine, Smolak & Murnen, 1990).

Another popular model is based on the assumption that eating disorders arise from dysfunctional family systems. This model has been adapted from the family systems model developed and applied to both anorexia nervosa and bulimia nervosa. According to this model,

eating disorders are developed from and maintained by dysfunctional family relationships. Family systems theorists argue that eating disorders are a way of coping with the difficulties associated with family relationships (Bailey, 1991). Bailey indicates four familial factors that have received attention: cohesiveness, expression of feelings, conflict resolution, and control.

While each of these factors represents distinct characteristics of family dynamics, a great deal of interconnection exists between them. For example, research seems to indicate that both enmeshment and disengaged family cohesion are risk factors for the development of eating disorders. Both extremes may lead to a poorly defined sense of self and often contribute to difficulty regulating, expressing, and coping with emotional states, especially intense or negative emotions (Bailey, 1991). Bailey notes that individuals suffering from eating disorders often have a difficult time with emotions such as anger, jealousy, grief, depression, anxiety, and insecurity.

Regarding these identified difficulties with emotions, researchers have noted self-regulatory deficits in individuals with eating disorders that extend beyond eating patterns, weight, or body image (Hsu, 1990; Johnson & Connors, 1987). These regulatory problems are thought to extend to problems that affect regulation and the regulation of personal and interpersonal behaviors. One study provided evidence suggesting that the activation of internalized images of family relationships may produce distress, leading to problems with behavioral self-regulation (Villejo, Humphrey, & Kirschenbaum, 1997). This study indicated that, when images of family relations are activated, individuals with eating disorders experience more hostility and greater difficulty with self-regulation than controls.

Enmeshed or disengaged types of cohesion also often contribute to difficulties with conflict resolution. In both cases, families members often avoid expressing beliefs, feelings, or



expectations that come in conflict with family norms, including norms of cohesion. Disengaged families may avoid conflict due to a fear of physical force, psychological intimidation, or even anger used to squelch things that conflict with family norms. Enmeshed families may avoid conflict because of fear of criticism, rejection, or personal attack or for not adhering to family norms (Bailey, 1991). In both cases, family members learn that self-expression is unsafe.

The level of cohesion, ability to express emotions, and conflict resolution within the family are all related to the levels of control within the family and the way control is used. Too much or too little control may be a determining factor in the development of eating disorders. Too much control, likely associated with high levels of cohesion, often leads to the all-or-none thinking that is distinctive of many individuals with eating disorders. Johnson (1982) argues that controlling families “retard the children’s development of autonomy, competence, and interests in activities outside the safety of the family” (p. 404). This may be related to familial factors such as enmeshment, rigidity, hostile-interdependence, and sensitivity to social approval that have been identified by many researchers (Calam & Waller, 1998; Garner et al., 1987; Meyer & Russell, 1998; Steiger et al., 1995).

#### *A Relational View of Eating Disorders*

In the late 1980s, various researchers suggested a specific relationship within the family of origin (parent-child relationships) as an important factor in the development and maintenance of eating disorders (Calam, Waller, Slade, & Newton, 1989; Palmer, Oppenheimer, & Marshall, 1988; Pole, Waller, Stewart, & Parkin-Feighenbaum, 1988). Since then, numerous studies have focused on this and other relationships and their role in the development and maintenance of disordered eating patterns. This research has provided mounting evidence of the importance of

relationships in women's lives and the importance of examining the role of these relationships in the development and maintenance of eating disorders. A number of relational theories/models of eating disorders have developed, all of which regard disconnections and disruptions in women's relationships as the predisposing, triggering, and sustaining factor in eating disorders.

### *Self-In-Relation Theory*

One of the theories highlighting the need to examine the role of relationships in the development of eating disorders is the *self-in-relation theory* (Jordan et al., 1991). Self-in-relation theory asserts that, for women, the construction of the self occurs through mutual sharing and connection in relationships (Chodorow, 1974; Gilligan, 1982; Jordan, 1986; Jordan et al., 1991; Kaplan & Klein, 1985; Miller & Stiver, 1995; Stern, 1991). From this perspective, a great deal of a woman's sense of worth comes from feeling that she is part of and taking care of her relationships. As a woman develops, this allows her to differentiate herself within relationships with others while still allowing her to give attention to the relationship.

Self-in-relation theory focuses on "mutuality" in relationships, which includes (a) an interest in and responsiveness to the subjective reality of others, while maintaining a sense of self; (b) a sharing of one's own inner feelings, thoughts, and needs with others without the desire to manipulate others; and (c) respect for, participation in, and an awareness of the effects of growth in oneself and others (Miller & Stiver, 1997). According to this theory, perceived mutuality is thought to result in empowerment in relationships, clarity of thoughts and feelings, self-esteem, and a desire to develop genuine relationships with others resulting in a buffer effect against psychological and emotional maladjustment. In addition, perceived mutuality in relationships has been shown to facilitate intimacy (Reis, 1990), social support (Gottlieb, 1992),

emotional resiliency (Beardslee & Podorefsky, 1988), and effective coping strategies (Coyne, 1990; Coyne & Bolger, 1990). Relationships perceived as lacking in mutuality represent severe disconnection marked by invalidation, non-responsiveness, neglect, and frequent abuse (Tantillo & Sanfter, 2003). Consequently, a lack of “mutuality” in women’s relationships inhibits their ability to acknowledge and address emotions effectively, resulting in disruption of their psychological health. In some cases this disruption of psychological health may take the form of an eating disorder.

Building off of many of the tenants of the self-in-relation theory, Tanillo (1998) developed a relational approach to the treatment of eating disorders utilizing relational therapy (RT). She found that group and individual therapy focusing on relational issues was as effective as CBT in treating eating disorder symptoms (Tantillo & Sanfter, 2003). Tantillo and Sanfter (2003) also indicate that women who had a high level of perceived mutuality in their relationship with their fathers had lower levels of eating disorder symptoms. They also found that these women tended to make greater improvements during therapy than women with low levels of perceived mutuality. Similarly, utilizing interpersonal therapy, Fairburn (1993) and Jones et al. (1993) found that both individual and group interpersonal therapy is as effective as cognitive-behavioral therapy in improving eating disorder symptoms. These studies highlight the impact of relational issues among women with eating disorders and provide strong evidence supporting the incorporation of relational themes in eating disorder treatment.

### *Object Relations Theory*

Several theories have emerged from the psychoanalytic tradition supporting a relational understanding of eating disorders. Object relations theory suggests that disturbances in

relationships are an important predisposing factor in the development of eating disorders (Bruch, 1973; Selvini-Palazzoli, 1974). Several theorists have suggested eating disorders are due to general disturbances in object relations ego functioning (Friedlander & Siegel, 1990). For instance, Becker, Bell, and Billington (1992) found that women with disordered eating patterns had greater object relations disturbances than women without eating disorders. They also found that women with eating disorders endorsed significantly more fear of abandonment and lack of autonomy in relationships. Others contend that the core problem of women with eating disorders is a developmental failure in the process of separation-individuation (Johnson & Flach, 1985; Humphrey, 1988; Masterson, 1977; Palazzoli, 1978; Sours, 1980). These theorists suggest that women with eating disorders experience difficulties resolving the developmental task of separation-individuation from their maternal object. Based on this premise, Stromber and Humphrey's (1987) research suggests a number of factors indicating family features suggestive of separation-individuation difficulties, such as enmeshment, intrusiveness, and negation of the child's emotional needs. Striegel-Moore (1993) suggests that deficits in autonomy (involving both connection and separation), interpersonal competencies (ego strengths), and affect regulation are all involved in the etiology and maintenance of eating disorders. In addition, Friedlander and Siegel (1990) indicate that functional, emotional, and attitudinal dependence are predictive of eating disorder symptoms.

Building upon the notion of separation-individuation difficulties, some argue that, although young girls are socialized to value interpersonal relationships, societal pressures compel them to give up their relationship with their parents in the pursuit of autonomy (Steiner-Adair, 1989). Yet in this pursuit of autonomy, adolescent girls may be abandoning a relationship

that provides them immense potential for growth, affirmation, and support. Some theorists have hypothesized that eating disorder symptoms are a psychological response to feelings of insecurity and ineffectiveness that result from this pressure to separate from the parent-child subsystem (Bruch, 1973; Crisp, 1980; Selvini-Palazzali 1978). Others contend that excessive dependence upon the resources of others is a coping mechanism commonly seen in individuals with eating disorders used to maintain a sense of safety and security (Armstrong & Roth, 1989).

### *Attachment Theory*

One theory that seems to meld important features of self-in-relation theory and object relations theory is attachment theory. In addition to focusing on relational processes, such as separation-individuation, attachment theory also places a great emphasis on the importance of reciprocal processes in the formation and continuation of significant relationships in line with the notion of mutuality. In addition, attachment theory, along with self-in-relation theory, places a great emphasis on individuals' perceptions of their relationship rather than on the actual nature of the relationship.

Attachment relationships are considered influential in a wide range of psychological functions, such as interpersonal competencies (ego strengths), affect regulation, and the development/maintenance of self-esteem (Freidberg & Lyldon, 1996; Kenny & Hart, 1992). As such, attachment relationships have been implicated as a factor in the etiology of a number of different psychological disorders, such as depression, schizophrenia (Dozier, Stevenson, Lee, & Velligan, 1991; Guidiano & Liotti, 1983; Kobak, Sudler, & Gamble, 1991), and eating disorders. Guidiano and Liotti (1983) suggest that, when this is the case, it is the child's perception of the parent-child relationship that is influential. When a child views his or her attachment relationship

as unsatisfying, that child will be less able to cope with adverse experiences later in life. A full understanding of this process, the applications of attachment theory to psychological functioning, and the extension of this application to the etiology of psychological disorders requires a review of some of the fundamental aspects of attachment theory. Following this review, the specific application of attachment theory to eating disorders will be discussed.

*Review of concepts.* Although many of John Bowlby's ideas originated in his work with others, he was one of the first to organize and develop the constructs that we now call attachment theory (Bowlby, 1973). Bowlby proposed that the bonds, or attachment, that develop from early interactions between an infant and caregiver are significant in the developmental process. He noted that these attachment bonds play a fundamental role in the development of both personality and social identity through internal working models or representation (Bowlby, 1973, 1982). The purpose of these models is to allow the individual to regulate, interpret, and predict attachment-related behavior, thoughts, and feelings for both the attachment figure and the self. These models include memories of attachment-related experiences and consist of prototypic beliefs, attitudes, and expectations about the self and others in attachment relationships. Working models also include plans and strategies to achieve attachment goals and deal with attachment-related emotions (Collins & Read, 1994; Kobak, Cole, Ferenz-Gillies, & Fleming, 1993). Thus, working models affect what the individual attends to in relationships. Accordingly, Bowlby believed that attachment affects the development of the individual from the cradle to the grave because it plays a central role in the development of relationships (Bowlby, 1969/1982).

Early empirical examinations of Bowlby's theory focused mainly on patterns of attachment in young children. One of the earliest to study attachment theory was Mary

Ainsworth (Ainsworth, 1979, 1989; Ainsworth et al., 1978), whose studies focused on attachment formation in infants and young children. Based on her research, Ainsworth discovered that virtually all infants develop some kind of attachment bonds; the only difference between infants was in the quality of their attachment. Ainsworth and others identified three primary attachment styles: secure, anxious/ambivalent, and avoidant (Ainsworth et al., 1978). Subsequent models of attachment proposed a four-typology attachment style (Bartholomew & Horowitz, 1991). Ainsworth's research indicates that infants who are securely attached use the attachment figure for assurance and security and as a basis from which to explore the world. Furthermore, although they experience some distress upon separation from the attachment figure, securely attached infants are reassured by the attachment figure's return and are easily comforted. Infants with one of the other attachment styles react differently; some avoid the attachment figure after periods of separation, while others react excessively upon separation and become difficult to comfort when reunited with the attachment figure.

Since Bowlby's establishment of attachment theory and the extension of his work by Ainsworth and others, researchers have focused on extending the study of attachment in several areas important to the current study—namely, personality development, relationships in adolescence and adulthood, and psychological effects of attachment disruptions. After discussing these extensions of attachment theory, this review will turn its attention to the application of attachment theory to eating disorders.

*Personality correlates.* Attachment theory maintains that many of the characteristics an individual develops are due to parent-child relationships. Proponents of attachment theory contend that many personality characteristics are derived from the trust and confidence provided

by attachment figures (Thompson, 1999). This and other studies support a connection between attachment and personality characteristics, indicating that it is possible to make predictions about characteristics such as sociability, one's ability to understand others, self-reliance, emotional regulation, interpersonal competence, and self-concept from the attachment style (Bretherton, Bolby, & Cho, 1997; Weinfield, Sroufe, & Egeland, 1999). Other research suggests a relationship between attachment and self-esteem, emotional health, compliance, and positive affect (Sroufe, 1983; Sroufe & Egeland 1991).

Building on this research, studies have been conducted to test the connection between attachment style and relationship security. One study by Collins (1995) indicates that securely attached individuals express more confidence about relationships and are less likely to view unresponsive behavior as intentionally rejecting than individuals with insecure attachment styles. Furthermore, individuals with insecure attachment are more likely to believe that unresponsive behavior places a relationship in jeopardy. Feeney (1994) demonstrated that securely attached people are less likely to respond to physical separation with feelings of insecurity. She also found that secure individuals are more likely to use viable coping strategies when dealing with separation and are more inclined to confront problems directly by negotiating with their partners.

Another personality characteristic implicated in the attachment literature is affect regulation. A number of researchers and theorists have suggested that individual styles of affect regulation are related to early parent-child interactions (Cassidy, 1994; Reed, 1996; Thompson, 1994). Cassidy's (1994) review of attachment literature found that insecure attachment is linked to patterns of emotional inhibition or enhancement. For instance, avoidant attachment is associated with deactivation strategies, which are often accompanied by affect inhibition or



minimization. On the other hand, anxious attachment, usually associated with hypervigilance, is associated with affect enhancement. Because of the difficulties with affect regulation experienced by individuals with different types of insecure attachment, insecure attachment has been shown to relate to maladaptive behaviors used for self-regulations, such as addiction (Cooper et al., 1995; Hoffer & Magai, 1997; Magai, 1996).

Another factor connected with adult attachment is communication style. Bretherton (1990) argues that communication is the main way in which attachment relationships are maintained. In support of this claim, Mikulincer and Nachshon (1991) demonstrated that secure individuals are prone to utilize more open communication styles. Other studies have identified a link between attachment style and patterns of self-disclosure, indicating that secure and ambivalent individuals report more self-disclosure than avoidant individuals. Furthermore, secure individuals show the most reciprocity and flexibility (Keelan, Dion, & Dion, 1998).

Other research has examined attachment and factors related to conflict style. Kobak and Hazan (1991) found that, in couples, spouses with secure attachment regulate their emotions more constructively during problem-solving discussions and exhibit better marital adjustment following conflict. Other researchers found that women with more secure attachment styles regulate their emotions better than women with insecure attachment (Simpson, Rholes, & Nelligan, 1992). These researchers also found that these women were more likely to turn to the attachment figure for reassurance and support, aiding in emotional regulation.

*Attachment relationships in adolescence and adulthood.* Bowlby was careful in the way he described attachment relationships because he wanted to distinguish attachment bonds from other types of bonds. To do so, he maintained that attachment bonds have four defining features:

proximity maintenance, separation distress, safe haven, and secure base (Ainsworth, 1989; Bowlby, 1979; Cassidy, 1999). Although Bowlby was interested specifically in child-parental relationships, these defining features may apply to other types of relationships as well.

One reason for applying attachment theory to other attachment relationships is the reparative effect later attachment relationships may have on the disruption of the attachment system occurring from early parent-child relationships. Schwartz and Southern (1999) suggest that later attachment relationships often prove to be transformative. In line with this, Kirkpatrick (1997, 1998) suggests that God may serve as a compensatory attachment figure for individuals with an insecure attachment style. In addition, Johnson (2002) asserts that experiences in romantic relationships can significantly impact the attachment disruption and personal disruption occurring from trauma. Simpson and Rholes (1994) further suggest that the responsiveness of an attachment figure (in this case, the romantic partner) works to strengthen attachment bonds. The strengthening of these bonds works to dispel old attachment models of the self and the attachment figure. Thus, attachment experiences in adulthood can help repair the effects of attachment disruption occurring in early life. Individuals experiencing attachment disruption early in life who are not able to achieve attachment security with their partners or with God experience ongoing relationship distress. Because of insecure attachment dynamics, these individuals tend to perpetuate the affect of traumatic events in their relationships (Johnson, 2002). Regarding the perpetuation of traumatic events, Johnson (2002) suggests this pattern becomes so disruptive to the individual that, in cases in which these individuals enter therapy, therapeutic goals are undermined.

As adult attachment relationships have the potential to impact individuals in both positive and negative ways, researchers have strived to identify other types of attachment relationships. Theoretical work in the early 1980s contributed to the extension of attachment principles to close relationships in adulthood, such as romantic relationships. For instance, Weiss (1982) contended that the four defining features of attachment identified apply to romantic relationships in adulthood. He argues that a person gains security and comfort from his or her partner, wants to maintain proximity to the partner, and protests when the partner becomes unavailable. Hazan and Shaver (1987) extended the work on attachment both theoretically and empirically. In several papers they argued that, not only does the common conception of adult romantic love coincide with attachment theory, but the variations in early social experience cause lasting differences in relationship styles (Hazan & Shaver, 1987; Shaver & Hazan, 1988; for a review, see Simpson & Rholes, 1998).

The extension of attachment theory to romantic relationships paved the way for other types of relationships to be considered within the context of attachment theory, including peer relationships and one's relationship with the Deity. Research by Armsden and Greenberg (1987) indicates that significant peer relationships fit well with the criteria established by Bowlby for attachment relationships; these authors have developed an inventory of parent and peer attachment based on Weiss's (1982) research. In addition, Brennan and Shaver (1995), Graqvist (1998, 2002), Kirkpatrick and Shaver (1990, 1992), and Rowatt and Kirkpatrick (2002) examined attachment relationships with the Deity, arguing that one's relationship with God or religious beliefs about God also conform to the criteria of attachment relationships. Kirkpatrick (1997, 1998) provides evidence that in some cases God serves as a compensatory attachment

figure for individuals with insecure attachment. Additional research suggests that individuals may use God as a substitute attachment figure (Granqvist, 1998). Other research suggests that, rather than acting as a compensatory attachment relationship, a correspondence exists between parental attachment and attachment to God (Brokaw & Edwards, 1994; Hall & Brokaw, 1995).

*Psychological effects of attachment disruptions.* Theorists and researchers continue to build upon attachment theory and argue that the behavioral, cognitive, and affective features of the attachment system are central to development and have a strong influence on adaptive functioning and personality formation. According to this view, attachment is seen as an enduring emotional bond that promotes exploration and a mastery of the environment, leading to the development of autonomy. In addition, characteristics of healthy attachment are considered to be influential in the development of self-esteem, self-efficacy, social competence, and the ability to regulate affective states (Armsden & Greenberg, 1987; Kenny, 1987, 1990; Kobak & Sceery, 1988; Ryan & Lynch, 1989). O’Kearney (1996) notes,

The behavioral, cognitive, and affective features of the attachment system are central to the progress toward adaptive functioning and personality formation. These features impact on the development of beliefs and competencies about interpersonal functioning, on the emerging sense of self, self-efficacy, and self-esteem, on the capacity to regulate affective life, and on motivation. (p. 117)

Johnson (2002) adds that secure attachment promotes personality integration, confidence/trust in one’s self and others, and openness to experiences. Attachment also promotes healthy risk taking, fosters autonomy, and facilitates adaptive responses to changes in the environment.

In light of this, attachment disruption has far-reaching effects. Various researchers have argued that disruption of the attachment systems and processes associated with insecure attachment are related to low self-efficacy, low self-esteem, decreased levels of autonomy, and decreased affect regulation.

Stein (1996) notes that attachment disruption achieved through perfectionistic expectations works to limit the development of autonomy. In addition, Bruch (1982) argues that children often develop a sense of “nothingness” when they attempt to meet this type of unrealistic parental expectation. Regarding attachment and eating disorders, some argue that low self-esteem and the inability to self-soothe are related to attachment disruption in parent-child relationships and are indicative of general disturbances in the development of the self (Steinberg & Shaw, 1997).

In recent years, evidence seems to have grown, indicating affect regulation is both temperamentally and environmentally shaped (Cicchetti, 1996; Fox, 1994). Cassidy (1994) and others provide some evidence that individuals’ style of affect regulation are tied to attachment processes, particularly those related to mental representations that correspond to attachment style. Derryberry and Reed (1996) further suggest that these regulatory processes associated with attachment dynamics contribute to the capacity for self-regulation. Specifically, avoidant attachment is associated with affect minimization or inhibition while anxious (ambivalent) attachment is associated with heightened affectivity due to hypervigilance.

In light of the above-noted findings regarding the psychological affects of attachment disruption on the individual, it is not surprising that individuals with insecure attachment styles find therapy difficult and often undermine therapeutic goals. When this information is applied to

individuals with eating disorders, it is likely that those with more severe attachment disruptions will experience poorer therapeutic outcomes from counseling.

*Application of attachment theory.* As researchers examined how different types of relationships may be considered in line with attachment theory, others simultaneously examined the relationship between attachment relationships and eating disorders. Early advocates of the role of attachment disruption in the development of eating disorders include Burch (1973), Palazzoli (1978), and Masterson (1977), who all challenged the prevailing psychodynamic view of eating disorders, contending that disturbances in early childhood-mother relationships cause later disturbances in a number of key developmental processes in adolescence (Lewis, 2000). Generally speaking, these theorists contended that disturbances in early infant-mother relationships lead to later disturbances in adolescence, during which time individuals are striving to establish autonomy.

According to these early views, many suggest that disturbances in attachment relationships (real or perceived) often result in behavior indicative of eating disorders (Sugarman & Kurash, 1982). A great deal of the research in this area supports this view. Armstrong and Roth (1989) found that 96 percent of women with eating disorders in their sample displayed insecure attachment and separation distress consistent with an insecure attachment style (also see Becker, Bell, & Billington, 1987). More recent research suggests that individuals with eating disorders are characterized by both compulsive care-seeking and compulsive self-reliance (Ward, Ramsay, Turnbull, Benedettini, & Treasure, 2000). In addition, Broberg, Hjalmer, and Nevonen (2001) indicate a significant relationship between insecure attachment and women with eating disorders. As a whole, this research suggests that attachment disturbances are evident in

women with eating disorders while insecure attachment, with an associated fear of abandonment and difficulties with autonomy, differentiate women with eating disorders from other women.

### *Perceptions of Parents and Eating Disorders*

Converging evidence from the previously reviewed theories provides ample evidence that women's perceptions of their relationships play a significant role in the development of eating disorders. Much of this research has focused on women's perceptions of their relationships with parents. A number of theorists and researchers have emphasized the influence of adolescents' struggle with issues of separation-individuation in the development and maintenance of eating disorders (Friedlander, & Seigel, 1990; Heesacker & Neimeyer, 1990). They hypothesize that eating disorder symptoms are a psychological response to feelings of insecurity and ineffectiveness (Bruch, 1973; Crisp, 1980; Selvini-Palazzali 1978).

Another argument is that interactional patterns between parents and children—rather than actual separation-individuation difficulties—account for the development of eating disorders. For instance, Humphy et al. (1986, 1987) were able to identify difficulties in interaction patterns among families of individuals suffering from anorexia and bulimia. These authors described the families as having more negative affect and being more contradictory and controlling. They further found these families to be less positive and nurturing than other families. Thus, individuals with eating disorders are likely to view parental relationships as lacking in warmth, trust, and positive affect. In addition, such individuals tend to believe they cannot count on parents to provide support when needed or view them as interfering.

Humphy et al.'s findings are in line with other research findings. For instance, Palmer et al. (1988) indicate that individuals suffering from eating disorders describe their parents as less

caring (warm, affectionate, and empathetic) (see also Calam et al., 1989). Other studies indicate that women with anorexia tend to perceive their parents negatively, reporting lower levels of parental care than other individuals (Dozier et al., 1999; Palmer et al., 1988). Some researchers have found that scores on measures of parental care and protection differentiate women with eating disorders from controls (Steiger, Van der Feen, Goldstein, & Leicher, 1989). Finally, Heesacker and Neimver (1995) found that “more insecure attachment in formative, parental relationships was associated with greater eating disorder” (p. 424).

#### *Perceptions of Peers and Eating Disorders*

Although most research focusing on the relationship between women’s perceptions of their relationships and eating disorders has focused on parent-child relationships, a number of studies have also examined the relationship between women’s perceptions of their relationships with friends and eating disorders. This research indicates that women with eating disorders tend to experience difficulties relating to friends in social relationships (Grissett & Norvell, 1992; Heesacker & Neimeyer, 1990). This may be related to public self-consciousness, which is highly prevalent among women with eating disorders (Steigel-Moore et al., 1993). Accordingly, over-concern with oneself in relationships might inhibit the formation of intimate relationships and account for relational difficulties.

#### *Perceptions of Romantic Partners and Eating Disorders*

Rothschild et al. (1991) suggest that women with eating concerns have low sexual functioning and lower sexual satisfaction than women denying eating concerns. This is not surprising considering that disordered eating patterns have been linked with negative mood (Bulik et al., 1991; Lingswiler, Crowther, & Stephens, 1989) as well as high levels of depression



(Cooper & Fairburn, 1986; Schlesier-Carter, Hamilton, O'Neil, Lydiard, & Malcolm, 1989) and anxiety (Hesse-Biber & Marino, 1991; Schwalberg, Barlow, Alger, & Howard, 1992).

### *Relationship with God and Eating Disorders*

Thus far, few studies have examined the role of one's relationship with God in psychological functioning. As such, it is not surprising even fewer studies have examined the role of women's relationships with God or spirituality in eating disorders. What research that has been done indicates that women with eating disorders often feel they are spiritually unworthy, believing they do not deserve God's acceptance or love (Richards et al., 1997). In addition, women with eating disorders fear God's disapproval, which contrasts with their intense need to gain others' approval. These dynamics lead to a number of negative psychological factors that contribute to eating disorders, such as low self-esteem, poor coping skills, emotional distress, and anxiety. For instance, a negative, rejecting perception of God has been shown to relate to numerous psychological difficulties, including emotional isolation, anxiety, depression, and emotional distress (Kirkpatrick, 1999; Kirkpatrick & Shaver, 1990; Strahan, 1991). In response to feelings of rejection, women with eating disorders tend to respond by avoiding a relationship with God as a means of avoiding the feelings that this relationship invokes. In doing so, although contributing to a sense of control, this generally leads to further feelings of rejection, shame, and loneliness (Kirkpatrick, 1999). In addition, this behavior reinforces women's perceptions of God as cold and rejecting.

## METHODS

### *Participants*

Participants consisted of 483 female patients from an eating disorder treatment facility. Participants were recruited from both an inpatient and outpatient pool of patients at The Center for Change, a treatment facility that specializes in providing treatment for individuals with eating disorders. The age of participants ranged from 12 to 56 years old (mean = 22, SD =7.49), the majority of which were between the ages 14 and 26 (N = 395, 81.8 percent). The research sample consisted mainly of Caucasians (N = 456, 96 percent), with other races and ethnic groups, such as African American (N = 3, 0.6 percent), Asian (N = 1, 0.2 percent), and Hispanic (N = 3, 0.6 percent), representing a minority of participants.

An examination of participants' religious affiliation indicated that the majority of participants were members of the Church of Jesus Christ of Latter-Day Saints (LDS) faith (N = 311, 68.8 percent). Other religious affiliations represented in the sample included Protestant (N = 32, 7.1 percent), Catholic (N = 27, 6 percent), Jewish (N = 6, 1.3 percent), Christian (N = 6, 1.3 percent), and "other" (N = 34, 7.5 percent). Of the participants, 36 (8 percent) reported no religious affiliation.

Participants were also asked about their marital status and education level. The majority of the participants were single (N = 383, 81.1 percent), with 76 individuals (16.1 percent) reporting they were married, 11 individuals (2.3 percent) reporting they were divorced, and 2 individuals (0.4 percent) reporting they were separated. Participants' education level consisted of junior high (N=16, 3.4 percent), high school (N = 111, 23.8 percent), high school graduate (N =

85, 18.2 percent), college (N = 201, 43.1 percent), college graduate (N = 40, 8.6 percent), graduate student (N = 4, 0.9 percent), and graduate degree (N = 9, 1.9 percent).

### *Procedures*

Data were collected from participants recruited on a voluntary basis from patients at the Center for Change, located in Orem, Utah. The Center for Change is a treatment facility for inpatient and outpatient treatment of eating disorders. Patients receiving treatment at the center are routinely asked to complete a number of assessment questionnaires upon intake and at discharge, including those utilized in this study—namely, the Spiritual Well-Being Scale (SWBS), the Relational Distress Scale of the Outcome Questionnaire-45 (OQ-REL), the Attitude Toward Father and Mother scales (AFS) and (AMS), the Parental Acceptance-Rejection Questionnaire (PARQ), and the Eating Attitudes Test (EAT). A multiple regression analysis was used to assess the relationship between relational measures and the symptom severity measure.

### *Measures*

The measures proposed for this study include the Religious Well-Being Scale (RWS) of the Spiritual Well-Being Scale (SWBS), the Attitude Toward Father and Mother scales (AFS and AMS; Hudson, 1982), the Parental Acceptance-Rejection Questionnaire (PARQ; Ronhner, 1991), the Relational Distress Scale (RDS) of the Outcome Questionnaire-45 (OQ-45), and the Eating Attitudes Test (Garner & Garfinkel, 1979). The RWS, PARQ, AFS, AMS, and RDS were all chosen for their ability to measure women's general perceptions of their relationships with significant others (i.e., parents, peers, romantic partners, and God).

*The Spiritual Well-Being Scale (SWBS)*

Developed by Paloutzian and Ellison (1982), the SWBS is one of the most widely used instruments in the psychology of religion. The SWBS is a 20-item instrument developed for use with religious individuals to measure factors associated with their spirituality. It is composed of two subscales: Religious Well-Being (designed to assess one's relationship with God) and Existential Well-Being (designed to assess one's sense of satisfaction and meaning in life (Ellison, 1983). Research has indicated that these scales have good internal consistency and construct validity (Bufford, Paloutzian, & Ellison, 1991; Ellison & Smith, 1991). Furthermore, test-retest reliability coefficients of .93 (SWBS), .96 (RWB), and .86 (EWB) suggest the SWBS and its sub-scales have high reliability (Paloutzian & Ellison, 1982).

Although the SWBS has been used extensively, it faces a number of limitations (for a review, see Genia, 2001; Scott, Agresti, & Fitchett, 1998). Ledbetter, Smith, Vosler-Hunter, and Fischer (1991) found evidence of a significant ceiling effect. Accordingly, they argued that the SWBS is better conceived of as a measure of perceived spiritual deficiency rather than spiritual well being. This can be problematic because parametric correlational procedures assume the use of symmetrical data.

Another problem with the SWBS is that factor analytic studies have failed to identify its two-dimensional structure (Bufford et al., 1991; Ledbetter et al., 1991). Paloutzian and Ellison's (1979) study and a number of other studies have actually identified three separate factors, with only two of the factors having Eigenvalues larger than 1. Despite these findings, Paloutzian and Ellison retained the items that loaded on the three factors and combined them with the second factor. This is one possible explanation for the low reliability values found for the EWB scale.

Despite these limitations, the SWBS still has a number of advantages, including the fact that it is not based on a specific religious orientation. In addition, the SWBS has been shown to relate to self-esteem, hopelessness, depression, and other pertinent variables (Bufford et al., 1991; Ellison & Smith, 1991). Finally, although some limitations to the validity of the SWBS are apparent, it still seems to be a helpful measure and is used extensively because so few—if any—comparable measures exist without similar limitations.

*Attitude Toward Father and Mother Scales (AFS and AMS)*

The Attitude Toward Father Scale (AFS) and Attitude Toward Mother Scale (AMS) are 25-item scales designed to measure the extent of problems children have with their fathers and mothers (Giuli & Hudson, 1977; Hudson, 1982). The AFS has a mean alpha of .95 and a standard error of measurement of 4.56, while the AMS has a mean alpha of .94 and a standard error of measurement of 5.57 (Hudson, 1982). In addition, test-retest reliability for the two scales are .96 (AFS) and .95 (AMS) after one-week. Finally, Hudson (1982) provides evidence for both predictive and divergent validity of the AFS and AMS. Mathiesen, Cash, and Hudson (2002) have also made a shortened version of the AFS and AMS (identified as problems with mother and father), producing comparable coefficient alphas of .9081 (AMS) and .9143 (AFS).

*Parental Acceptance-Rejection Questionnaire (PARQ)*

The PARQ is a 60-item questionnaire designed to assess retrospective accounts of perceived parental acceptance-rejection behaviors during childhood. The questionnaire consists of four separate subscales (warmth/affection, aggression/hostility, neglect/indifference, and undifferentiated rejection), which are combined to create a composite score. The internal

consistencies for these subscales are as follows: warmth/affection (.95), aggression/hostility (.93), neglect/indifference (.88), and undifferentiated rejection (.86) (Rohner, 1980). Other studies indicate these subscales have good split-half reliabilities ranging from .77 to .92 (Williams, 1988). In addition, Cournoyer and Rohner's (1996) study demonstrated that the PARQ has a test-retest reliability of .62 for retrospective reports of parental acceptance-rejection. Finally, Khaleque and Rohner's (2001, 2002) meta-analysis of studies provided further evidence for the reliability and validity of this measure, such as a common factor structure across various ethnic and cultural groups.

The PARQ is based on Parental Acceptance-Rejection Theory (Rohner, 1986, 1999), a socialization theory that argues that personality characteristics are determined by an individual's experience of parental acceptance and rejection early in life. According to parental acceptance-rejection theory, seven personality dispositions tend to vary based on childhood experiences of parental acceptance-rejection: a) hostility, aggression, passive aggression, or problems with managing hostility and aggression; b) dependency or impaired self-esteem; d) impaired self-adequacy; e) emotional unresponsiveness; f) emotional instability; and g) a negative worldview (Khalequ & Rohner, 2002).

#### *The Interpersonal Relationship Scale of the OQ-45*

The Outcome Questionnaire 45 (OQ-45) is a symptom and distress inventory developed by Lambert et al. (1994) to assess "patient functioning" (Mueller, Lambert, & Burlingame, 1998, p. 250). Scores on the OQ-45 are used to track changes in client symptomatology. The OQ-45 consists of 45 items, each on a 5-point Likert scale. Scores on the whole scale are used as well as scores for each of three subscales, assessing Symptom Distress (SD), Social-Role functioning (SR), and

Interpersonal Relationships (IR). The SD, SR and IR subscales consist of 22 items, 9 items, and 11 items, respectively. The IR subscale (items 1, 7, 16, 17, 18, 19, 20, 26, 30, 37, and 43) assesses clients' satisfaction with interpersonal relationships, especially marital relationships, relationships with peers, and family relationships (Kadera et.al., 1996; Lambert et. al., 1994). Scores on the IR subscale can range from 0 to 44.

Previous psychometric evaluations of the OQ-45 and its scales have revealed internal consistency levels of .93 and test-retest reliability of .84 (Kadera et al., 1996; Umphress et al., 1997). Test-retest reliability for the subscales has been estimated to range from .78 to .82, with internal consistency estimates from .71 to .92 (Lambert et al., 1994). In addition, Vermeersch, Lambert, and Burlingame (2000) examined the OQ-45 for item sensitivity to change; of the 45 items, 37 met their criteria for sensitivity to change. They suggest that the remaining eight items might not have been sensitive to change because they were more static in nature, tapping into physiological complaints and interpersonal relationships.

#### *Eating Attitudes Test (EAT)*

The EAT (Garner & Garfinkel, 1979), the first questionnaire developed to assess symptoms of eating disorders, was developed as a measure of symptoms frequently occurring in this population. The original EAT consists of a 40-item self-report measure; a 26-item version (the EAT-26) was subsequently developed (Garn, Olmstead, Bohr, & Garfinkel, 1982). In its various forms, the EAT is likely the most widely used of all self-report measures for eating disorders (Koslowsky et al., 1992; Patton & King, 1991). Research indicates the EAT is a valid measure; for instance, Mintz and O'Halloran (2000) indicate the overall accuracy of the EAT is .91, its sensitivity is .77, and its

specificity is .95. Williamson et al. (1995) report mean EAT-40 scores for anorexics to be 58.9, while bulimics' mean is 41.23 and people with binge eating disorder have a mean of 32.3. Thus, scores over 30 appear to be clinically significant.

### *Research Design*

The current study aimed to examine the effect of women's perceptions of their relationship with parents, peers, romantic partners, and God (as measured by the AFS, AMS, PARQ, OQ-45, and SWBS) on the severity of eating disorder symptoms (as measured by the EAT) among an inpatient sample of women at The Center for Change. Data were gathered at intake and discharge for all measures except for the PARQ. Change scores were then computed for all measures administered at intake and discharge. The relationship between the relational measures and the eating disorder symptom severity measure was examined. The ability of the relational measures to predict the eating disorder symptom severity measure was also examined.

### *Statistical Analysis*

A number of statistical analyses were run as part of this study. In addition to descriptive statistics, the present investigation utilized Pearson Product Moment Correlation Coefficients to analyze the zero-order association between the relationship measures and the eating disorder symptom severity measure. In addition, stepwise multiple regression analyses were conducted to assess which relationship measures in the presence of others predicted eating disorder symptom severity.



## RESULTS

Descriptive statistics were run for all measures. Measures were administered at intake and discharge. Utilizing scores from intake and discharge, change scores were also computed. Descriptive statistics for all variables are provided in Table 1.

### *Research Question #1*

What are the zero-order correlations between the relationship measures and the symptom severity measure at intake? As evident in Table 2, all relationship measures (except for religious well-being) were significantly related to the symptom severity measure at intake. Disruptions in relationships with parents, peers, and romantic partners were associated with increased eating disorder symptoms.

### *Research Question #2*

What are the zero-order correlations between the relationship measures and the symptom severity measure at discharge? As evident in Table 2, all relationship measures were significantly related to the symptom severity measure at discharge. Even after treatment, women who reported disruptions in relationships with parents, peers, romantic partners, and God reported increased eating disorder symptoms.

### *Research Question #3*

What are the zero-order correlations between the relationship measures at intake and changes in the symptom severity measure? As evident in Table 2, most of the relationship measures at intake were significantly related to changes in eating disorder symptom severity. In this case, greater disruptions in relationships at intake were related to greater positive changes in

eating disorders symptoms. Only the measure of relationship to God at intake did not predict change in eating disorder symptoms over time.

Table 1.

*Descriptive Statistics for Study Measures*

Variable	Mean	Standard Deviation
OQ-Rel time-1	18.12	6.51
EAT time-1	61.87	22.15
MARQ	91.87	39.86
FARQ	98.85	42.67
AFS time-1	28.08	25.17
AMS time-1	25.78	24.06
RWB time-1	43.74	13.34
OQ-Rel time-2	11.99	5.73
EAT time-2	19.72	16.41
AFS time-2	22.97	22.69
AMS time-2	21.03	20.76
RWB time-2	49.25	11.53
OQ-Rel Change	6.10	6.51
EAT Change	42.46	22.05
AFS Change	4.83	15.43
AMS Change	4.47	17.92
RWB Change	-5.38	9.87

Table 2.

*Correlations between Relationship Measures and the Symptom Severity Measure*

Variable <sup>a</sup>	Eating Attitudes Test (EAT)		
	Intake	Discharge	Change
Intake FARQ	.204**	N/A	.118*
Intake MARQ	.258**	N/A	.197**
OQ- Intake	.275**		.208**
REL Discharge		.471**	-.203**
			.361**
AFS Intake	.181**		.099*
		.194**	.005
			.102*
AMS Intake	.217**		.166*
		.221**	.062
			.174**
RWB Intake	-.048		.013
		-.282**	.176**
			-.171**

*Note.* \* indicates a significance correlation at the .05 level; \*\* indicates a significance correlation at the .01 level.

<sup>a</sup> Change in Eating Attitude Test (EAT Chng), Father Acceptance Rejection Questionnaire (FARQ), Mother Acceptance Rejection Questionnaire (MARQ), Relational distress scale of the Outcome Questionnaire-45 (OQ-REL), Attitude Toward Father Scale (AFS), Attitude Toward Mother Scale (AMS), Religious Well-being Scale (RWB).

*Research Question #4*

What are the zero-order correlations between the relationship measures at discharge and changes in the symptom severity measure? As Table 2 indicates, women who reported better relationships with peers, romantic partners, and God at discharge also reported the greatest change in eating disorder symptoms.

*Research Question #5*

What are the zero-order correlations between changes in the relationship measures and changes in the symptom severity measure? As Table 2 indicates, changes in all relationship measures were significantly related to changes in eating disorder symptom severity. Through the course of treatment, any changes in relationships with parents, peers, romantic partners, and God were associated with improved eating attitudes over time.

In response to research questions 6 through 10, a series of stepwise multiple regression analyses were run. The results of these analyses are provided in Tables 3 through 7. For each of these tables, the beta weight for the predictor, the standard error of the beta weight, and the  $t$  value of the beta weight for the predictor are presented. The tables also present the combined correlation coefficient ( $R$ ), the coefficient of determination ( $R^2$ ), the  $F$  ratio of explained to error variance ( $F$ ), and the two-tailed probability of type-I error ( $P$ ).

*Research Question #6*

In the presence of one another, which relationship measures predict the symptom severity measure at intake? As evident in Table 3, stepwise regression results indicate that the relationship variables that best predicted the symptom severity measure were the Relational Distress Scale of the OQ-45 (OQ-REL) and the Mother Acceptance Rejection Questionnaire

(MARQ). These two variables accounted for 10.4 percent of the variance in EAT scores at admission. Disruptions in relationships with parents, peers, and romantic partners were predictive of increased eating disorder symptoms, while positive relationships predicted decreased symptom severity.

Table 3.

*Regression Analysis for Predicting Symptom Severity at Intake from Relationship Measures at Intake (N = 417)*

Variable <sup>a</sup>	<i>B</i>	<i>SE</i>	<i>t</i>	<i>R</i>	<i>R</i> <sup>2</sup>	<i>F</i>	<i>p</i>
Step 1							
OQ-REL	.904	.115	5.814				
				.274	.075	20.905	.000
Step 2							
OQ-REL	.658	.165	4.154				
MARQ	.100	.028	3.627				
				.322	.104	20.605	.000

*Note.* Variables not in equation: FARQ, AFS, AMS, and RWB.

<sup>a</sup> Father Acceptance Rejection Questionnaire (FARQ), Mother Acceptance Rejection Questionnaire (MARQ), Relational distress scale of the Outcome Questionnaire-45 (OQ-REL), Attitude Toward Father Scale (AFS), Attitude Toward Mother Scale (AMS), Religious Well-being Scale (RWB).

#### *Research Question #7*

In the presence of one another, which relationship measures predict the symptom severity measure at discharge? As Table 4 indicates, stepwise regression results reveal that the

relationship measures that best predicted the symptom severity measure was the Relational Distress Scale of the OQ-45 (OQ-REL), which accounted for 22.1 percent of the variance in women's EAT scores after treatment. Perceived disruptions in relationships with peers and romantic partners were shown to be predictive of increased symptom severity, while positive perceptions of these relationships were shown to be predictive of decreased symptom severity.

Table 4.

*Regression Analysis for Predicting Symptom Severity at Discharge from Relationship Measures at Discharge (N = 483)*

Variable <sup>a</sup>	<i>B</i>	<i>SE</i>	<i>t</i>	<i>R</i>	<i>R</i> <sup>2</sup>	<i>F</i>	<i>p</i>
Step 1							
OQ-REL2	1.316	.126	10.438				
				.47	.221	108.950	.000

*Note.* Variables not included in analysis: MARQ, FARQ. Variables not in equation: RWB2, AFS2, and AMS2.

<sup>a</sup>Father Acceptance Rejection Questionnaire (FARQ), Mother Acceptance Rejection Questionnaire (MARQ), Relational distress scale of the Outcome Questionnaire-45 (OQ-REL), Attitude Toward Father Scale (AFS), Attitude Toward Mother Scale (AMS), Religious Well-being Scale (RWB).

#### *Research Question #8*

In the presence of one another at intake, which relationship measures predict change in the symptom severity measure? As evident in Table 5, results of stepwise regression indicate that the relationship measures that best predicted the symptom severity measure are the OQ-REL and the MARQ. These two measures accounted for 5.9 percent of the variance in women's EAT change scores. At intake, women's positive perceptions of their relationships with their mother, peers, and romantic partners were shown to be predictive of greater change (decrease in

symptom severity) between intake and discharge.

Table 5.

*Regression Analysis for Predicting Change in Symptom Severity from Relationship Measures at Intake (N = 361)*

Variable <sup>a</sup>	B	SE	t	R	R <sup>2</sup>	F	p
Step 1							
OQ-REL	.693	.172	4.030				
				.208	.043	16.237	.000
Step 2							
OQ-REL	.514	.186	2.762				
MARQ	.074	.030	2.444				
				.243	.059	11.218	.000

*Note.* Variables not in equation: FARQ, AFS, and AMS.

<sup>a</sup> Father Acceptance Rejection Questionnaire (FARQ), Mother Acceptance Rejection Questionnaire (MARQ), Relational distress scale of the Outcome Questionnaire-45 (OQ-REL), Attitude Toward Father Scale (AFS), Attitude Toward Mother Scale (AMS), Religious Well-being Scale (RWB).

#### *Research Question #9*

In the presence of one another at discharge, which relationship measures predict change in the symptom severity measure? According to Table 6, results of stepwise regression indicate that the relationship measures that best predicted the symptom severity measure were the OQ-REL, the Attitudes Towards Mother Scale (AMS2), and the Religious Well-being Scale (RWB). These measures accounted for 7.2 percent of the variance in women's EAT change scores. At discharge, women's positive perceptions of their relationships with their mother, peers, and

romantic partners were shown to be predictive of greater change (decreased eating disorder symptom severity) between intake and discharge.

*Research Question #10*

In the presence of one another, which change scores for relationship measures predict change in the symptom severity measure? As evident in Table 7, results of stepwise regression indicate that the relationship measure that best predicted the symptom severity measure was the OQ-REL. This variable accounted for 13.1 percent of the variance in change in women's EAT scores. Women's perceptions of greater positive change in their relationships with their peers and romantic partners were shown to be predictive of greater change (decreased eating disorder symptom severity) between intake and discharge.



Table 6.

*Regression Analysis for Predicting Change in Symptom Severity From Relationship Measures at Discharge (N = 382)*

Variable <sup>a</sup>	B	SE	t	R	R <sup>2</sup>	F	p
Step 1							
OQ-REL2	-.749	.186	-4.031				
				.203	.041	16.250	.000
Step 2							
OQ-REL2	-.944	.196	-4.805				
AMS2	.153	.054	2.847				
				.247	.061	12.329	.000
Step 3							
OQ-REL2	-.745	.217	-3.435				
AMS2	.165	.054	3.063				
RWB2	.231	.109	2.117				
				.268	.072	9.789	.000

*Note.* Variables not included in analysis: MARQ, FARQ. Variables not in equation: AFS2.

<sup>a</sup>Father Acceptance Rejection Questionnaire (FARQ), Mother Acceptance Rejection Questionnaire (MARQ), Relational distress scale of the Outcome Questionnaire-45 (OQ-REL), Attitude Toward Father Scale (AFS), Attitude Toward Mother Scale (AMS), Religious Well-being Scale (RWB).

Table 7.

*Regression Analysis for Predicting Change in Symptom Severity from Change in Relationship**Measures (N = 363)*

Variable <sup>a</sup>	<i>B</i>	<i>SE</i>	<i>t</i>	<i>R</i>	<i>R</i> <sup>2</sup>	<i>F</i>	<i>p</i>
Step 1							
OQ-Rel	1.171	.159	7.364				
				.361	.131	54.231	.000

*Note.* Variables not included in analysis: MARQ, FARQ. Variables not in equation: AMS Chng, AFS Chng, RWB Chng.

<sup>a</sup>Father Acceptance Rejection Questionnaire (FARQ), Mother Acceptance Rejection Questionnaire (MARQ), Relational distress scale of the Outcome Questionnaire-45 (OQ-REL), Attitude Toward Father Scale (AFS), Attitude Toward Mother Scale (AMS), Religious Well-being Scale (RWB).

## DISCUSSION

The present study sought to better understand the relationship between women's pre-treatment and post-treatment perceptions (and changes in those perceptions) of parents, peers, romantic partners, and God as well as eating disorder symptom severity at intake and discharge. Although research in the area of eating disorders has highlighted the importance of attending to women's views of their parents, women's views of peers, romantic partners, and God have not fully been explored. In addition, seldom have women's perceptions of these relationships been investigated together. Specifically, the present study sought to determine if women's perceptions of parents, peers, romantic partners, and God were related to eating disorder symptom severity. It also sought to determine which relationship measures, in the presence of one another, predict the symptom severity measure.

The study was unique for several reasons, adding significantly to the present understandings within the field. First, it utilized a large sample of women in inpatient treatment for eating disorders. To date, many investigations in the existing research literature have relied on smaller samples and have not included an inpatient population. Second, this study examined multiple relational variables as they related to eating disorder symptom severity. Although these variables have been examined in the past, they have typically been studied individually. Few studies have examined the contributions of these variables together or sought to determine which of these variables—or combination thereof—best predict eating disorder symptom severity. Third, the current research sought to examine the research variables at multiple points (i.e., at intake and discharge from inpatient treatment) as well as change in these variables between these points. Few studies have examined differences in women's perceptions across time. Fewer still

have looked at the relationship between these changes to changes in eating disorder symptoms. Fourth, the dearth of research on women's religious well-being and spirituality as related to eating disorder symptom severity means that this study represented an initial investigation in this area.

### *Findings*

The present study sought to answer a number of questions regarding the relationship between women's perceptions of their significant relationships and eating disorders symptom severity (research questions 1-5). Specifically, this study aimed to examine the association between the relationship measures (administered at intake and discharge) and the symptom severity measure (administered at intake and at discharge), the association between the relationship measures (at intake and discharge) and change in the symptom severity measure, and the association between change in the relationship measures and change in the symptom severity measure.

Results of this study demonstrated a significant association between the relationship measures (except for the Religious Well-being Scale) and the eating disorder symptom severity measure at intake. The relationship measure that demonstrated the highest correlation with the symptoms severity measure was the relationships scale of the OQ-45. At discharge, a significant relationship was also found between the relationship measures and the eating disorder symptom severity measure. Again, the relationship measure that demonstrated the highest correlation with the symptom severity measure was the relationships scale of the OQ-45. At both intake and discharge, a perceived disruption in women's relationships was associated with higher scores on the symptom severity measure, while positive perceptions were associated with lower scores on

the symptom severity measure. The results also demonstrated a significant association between the relationship measures at intake (except for the Religious Well-being Scale) and change scores for the symptom severity measure, as well as a significant relationship between relationship measures at discharge (except for the AFS and AMS) and change in the symptom severity measure. In both cases, the relationship scale of the OQ-45 was shown to have the largest correlation with the symptom severity measure. Women who perceived their relationships in a more positive manner, at intake or discharge, experienced greater improvements in the severity of their symptoms. Finally, the results revealed that greater change on the relationship measures (perceiving their relationships more positively) was associated with greater improvements on the symptom severity measure. Thus, perceived positive changes in relationships with parents, peers, romantic partners, and God were associated with a decrease in reported symptom severity.

In addition to answering questions about the nature of the relationship between women's perceptions of their significant relationships and eating disorders symptom severity, this study sought to answer questions about the predictive ability of the relationship measures (research questions 6-10). Specifically, this study sought to examine the ability of the relationship measures to predict the symptom severity measure at intake as well as discharge. It also sought to determine the ability of the relationship measures, administered at intake and discharge, to predict change in the symptom severity measure. Finally, it sought to determine the ability of change scores computed for the relationship measures to predict change in the symptom severity measure.

At both intake and discharge, women's perceptions of their relationships with peers and romantic partners, as measured by the OQ-45 relationship scale, was shown to be predictive of both the symptom severity measure (at intake and discharge) and the change score for the symptom severity measure. Change in women's perceptions of these two relationships (improvements in the perceptions of these relationships) was also shown to be predictive of change in the symptom severity measure (decreased symptom severity). The relationship scale of the OQ-45 was the only measure shown to be predictive across all analyses. In several analyses, women's perceptions of their relationships with their mothers (as represented by either the MARQ or AMS) were also shown to be predictive of the symptoms severity measure. Specifically, women's perceptions of their relationships with their mothers at intake, as measured by the MARQ, were shown to be predictive of the symptom severity measure at intake as well as change in the symptom severity measure between intake and discharge. In addition, women's perceptions of their relationships with their mothers at discharge, as measured by the AMS, were shown to be predictive of the symptom severity measure at discharge as well as change in the symptom severity measure between intake and discharge. Finally, women's perceptions of their relationship with God at discharge were shown to be predictive of change in the symptom severity measure.

Answers provided by this study regarding the association between the relationship measures and the symptom severity measure (research questions 1-5) call into question the emphasis within the eating disorder literature placed upon women's relationships with parents, suggesting that women's relationships with peers and romantic partners may be more influential. Several researchers have suggested that parent-child relationships are an important factor in the

development and maintenance of eating disorders (Calam et al., 1989; Palmer et al., 1988; Pole et al., 1988). For instance, family systems theorists have argued that problems, such as parental separation-individuation, play a role in the development of eating disorders (Friedlander & Siegel, 1990; Minuchin et al., 1987). Object relations theorists have also pointed to developmental failure in the process of separation-individuation (Johnson & Flach, 1985; Humphrey, 1988; Masterson, 1977; Palazzoli, 1978, Sours, 1980). Several studies suggest that viewing one's father as absent physically or emotionally is related to eating disorder development (Cole-Detke & Kobak, 1996; de Groot & Rodin, 1994; Leibowitz, 1991; Rhodes & Kroger, 1992). Although these studies are informative, findings from the present study indicate that more research is needed. As noted earlier, results from this study indicated that women's perceptions of their relationships with peers and romantic partners may be more influential than perceptions of their relationships with parents.

One possible explanation of these results relates to the current developmental stage of most of the sample. The mean age for the sample was 22, with the majority of women falling between the ages of 14 and 26 ( $N = 395$ , 81.8 percent). According to Erikson's (1959) theory of development, a significant issue faced by adolescents and young adults is the development of relationships with peers and romantic partners. It is not surprising that adolescents and young adult women pay a great deal of attention to these relationships, which apparently are more influential in their lives during this stage. Relationships may generally affect factors such as self-esteem, body image, emotional stability, behaviors in and out of relationships, communication style, and beliefs about self, others, and the world. However, these relationships may be particularly influential on these factors due to the emphasis placed upon them during

adolescence and early adulthood. It should be noted that, despite the important implications of these findings, more work needs to be done to better understand the influence of peer and romantic relationships on eating disorders. The results of this study do not suggest a causal relationship between the eating disorder symptoms and women's perceptions of their relationships.

Another possible reason peer and romantic relationships were found to be more predictive of eating disorders has to do with the relationship scale of the OQ-45. Little research has been conducted to determine the ability of the relationship scale of the OQ-45 to specifically measure peer and romantic relationships. It may be a broad measure of relationship satisfaction, rather than a specific measure of satisfaction with peer and romantic relationships.

Results of this study show a number of implications about women's perceptions of their relationship with God. Some debate has occurred within the literature about the relationship between women's relationship with God and other relationships—specifically parents (see Granqvist, 1988, 2002; Kirkpatrick, 1992). Within the attachment and object relational literature, some have argued that one's relationship with God is directly related to one's relationship with parents. Although results from this study suggest some overlap exists between these variables, this may not be clear-cut. In at least one analysis from this study, both perceptions of parent-child relationships and one's relationship with the Deity provided a unique contribution to predictions of the severity of eating disorder symptoms.

The results of this study also call into question the lack of emphasis within the field placed on one's relationship with the Deity. In the past, women's relationship with God has been almost ignored within the eating disorder literature. The current study's results suggest this



variable should receive greater attention and may have significant implications for treatment outcomes. Bowlby (1973) hypothesized that attachment processes can potentially be applied to many settings and phenomena, including religious or spiritual beliefs. Work by Kirkpatrick (1999) and others has provided mounting evidence of the relevance of one's relationship with God. The results of the current study provide further evidence of the importance of attending to one's relationship with God. Furthermore, in demonstrating a relationship between women's perceptions of their relationship with God and symptom severity, this study supports Richards et al.'s (1997) contention that a relationship exists between perceptions of God and eating disorders. Consequently, this seems to be an area that warrants more attention.

Findings from this study regarding the predictive ability of relationship measures (research questions 6-10) call into question a number of other findings within the eating disorder literature, suggesting peer and romantic relationships may be more predictive of eating disorders. The findings also call into question some of the findings within this line of research. For instance, one study suggested that women's attitudes toward father (AFS) were predictive of symptom severity but not attitudes toward mother (AMS). The same study found that women's memory of their mothers as accepting/rejecting (MARQ) was predictive of symptom severity, but their memory of their fathers (FARQ) was not (Smith, 2006). Findings from the current study suggest that only one's relationship with mother (MARQ or AMS) is predictive of symptom severity, not one's relationship with father (FARQ or AFS). It also found that one's relationship with mother had less predictive ability than one's relationship with peers and romantic partners, which resulted in MARQ and AMS falling out in some analyses. Thus, studies that have suggested daughters' perceptions of their fathers had a significant relationship to the

development of eating concerns (Cole-Detke & Kobak, 1996; de Groot & Rodin, 1994; Leibowitz, 1991; Rhodes & Kroger, 1992; Wonderlich et al., 1994) need to be reexamined.

### *Conclusions*

The present study sought to examine the association between relationship measures (parents, peers, romantic partners, and God) and the symptom severity measure, specifically at intake and discharge, as well as change scores for each measure (research questions 1-5). The research findings revealed a significant association between the relationship measures and the symptom severity measure. Women who perceived their relationships with parents, peers, romantic partners, and God negatively reported more severe symptoms and experienced less improvement in the severity of their symptoms between intake and discharge. On the other hand, women who perceived their relationships more positively reported less severe symptoms and reported greater improvements in the severity of their symptoms. These results are not surprising given the extensive evidence that relationships play a significant role in eating disorders (e.g., Miller & Stiver, 1997; Tantillo & Sanfter, 2003; Becker et al., 1992; Broberg et al., 2001). However, the relationships shown to be predictive of the severity of women's symptoms or improvements in the severity of women's symptoms are intriguing. Across all analyses, women's perceptions of their relationships with peers and romantic partners, as measured by the relationship scale of the OQ-45, were shown to be predictive of symptom severity. Other variables that were shown, in some analyses, to be predictive of the severity of women's eating disorder symptoms included women's perceptions of their relationships with their mothers and their perceptions of their relationships with God.

A number of theories, such as attachment theory (Bowlby, 1973, 1982), feminist-based

theories (Chodorow, 1974; Gilligan, 1982; Jordan, 1986), and object relations theory (Bruch, 1973; Selvini-Palazzoli, 1974), serve as a useful foundation for discussing the influence of significant relationships on eating disorder. In general, these theories suggest that the nature of women's relationships affect them developmentally. Negative relationships have a significant impact on women and may lead to the development of eating disorders. However, these theories provide little insight into why women's perceptions of their relationships with peers and romantic partners proved to be predictive of the severity of women's eating disorder symptoms while other relationships proved not to play as significant a role in predictions. One possible explanation for this is that the majority of women in this sample ranged in age from 14 to 26. As noted previously, developmental theory suggests that individuals within this age range are focused on the developmental task of establishing relationships with peers and romantic partners. As some overlap exists between women's perceptions of relationships of various types, the relationship that is focused on most is likely the most predictive. Although other relationships, such as those with parents and God, may be important to consider, relationships with peers and romantic partners appear to be the most predictive of eating disorder symptom severity in this sample.

#### *Methodological Strengths*

Several factors contribute to the strength of this study. This study involved the comprehensive investigation of women with eating disorders utilizing multiple measurements of psychological functioning that have been extensively studied and are reported to have good reliability and validity. Data from these measures were collected both at intake and discharge, providing invaluable information about the nature of clients' concerns at multiple points in time

and change in those concerns across time. Finally, the large sample size made the use of multiple regression possible, without compromising statistical power.

#### *Limitations of the Study*

One limitation of the present study is that it relied solely on an inpatient sample of women being treated for eating disorders. It is unknown whether potentially important differences exist between an inpatient sample and women with eating disorders overall. Women entering treatment may do so for a number of reasons that set them apart from other women with eating disorders, including a greater level of distress, more dissatisfaction with their eating patterns, greater motivation for change, or more support and encouragement from significant others. Likewise, women who enter inpatient treatment may have significantly higher levels of eating disorder symptoms, more pronounced maladaptive relational styles, or more significant issues with the self. Whatever the differences, they are likely to affect the generalizability of results from this study.

The current study focused solely on women. Although the vast majority of individuals with eating disorders are women, the number of cases of men with eating disorders is on the rise. Thus, the application of this study to men is limited. Because of differences in the nature of men's and women's relationships and differences in the level of importance placed on relationships, important differences are likely to exist between these two populations.

Another limitation of this study is the demographic makeup of the sample. Most of the women in this study were Caucasian, which limits the generalizability of the findings to other ethnicities. In addition, the majority of participants were affiliated with the LDS faith, limiting the generalizability of this study's findings to other religious affiliations. Moreover, this

investigation relied on one aspect of participants' perception of God: religious well-being. The inclusion of other potentially important factors relating to religion and spirituality would provide a firmer foundation for investigating perceptions of God as related to eating disorder symptom severity.

Finally, this study relied on the Relational Distress Scale of the OQ-45 as a measure of women's perceptions of their peer and romantic relationships. Although the OQ-45 has been validated, the Relational Distress Scale as a measure an individual's perceptions of these specific relationships has not been validated. While a number of the items loaded onto this scale ask specifically about one's peer and romantic relationships, it may be tapping into the individual's perceptions of other significant relationships. As such, it may represent a more broad measure of relationship satisfaction.

#### *Recommendations for Future Research*

Although this research has been informative, it is limited in its ability to answer a number of questions; moreover, it raises new questions. For instance, are women prone to eating disorders influenced by different relationships at different developmental stages? It is possible that some age groups are influenced more strongly by parental relationships, as suggested by previous studies. What about the ability of replicating these findings with other samples, such as a non-clinical sample or with a sample of males with eating disorders? It is possible that non-clinical samples or males are more strongly influenced by other relationships.

Findings from this study also raise questions about differences between women's relationships with their mothers and fathers. Previous research has demonstrated differences, but findings from the current study did not support the findings of some studies. In addition, why

does one's relationship with the mother factor into some analyses and not in others? Is one's relationship with the mother more important at certain times than others?

The findings from this study also raise questions about the influence of women's relationship with God. For instance, why does it factor into any of the analyses (particularly those that included parental relationships) if it is theorized to be strongly correlated with one's relationship with parents?

## REFERENCES

- Ainsworth, M. D. S. (1985). Attachment across the life span. *Bulletin of the New York Academy of Medicine*, 61, 792-812.
- Ainsworth, M. D. S. (1989). Attachment beyond infancy. *American Psychologist*, 44, 709-716.
- Akan, G. (1995). Sociocultural influences on eating attitudes and behaviors, body image, and psychological functioning: a comparison of African-American, Asian-American, and Caucasian college women. *International Journal of Eating Disorders*, 18, 181-187.
- American Psychiatric Association (2002). Clinical resources: Treatment principles and alternatives. Available online: [http://www.psych.org/clin\\_res/guide.bk-5.cfm](http://www.psych.org/clin_res/guide.bk-5.cfm).
- American Psychiatric Association. (2000). *Diagnosis and Statistical Manual of Mental Disorders (4<sup>th</sup> ed., TR)*. Washington, DC: Author.
- American Psychiatric Association, (1994). *Diagnosis and Statistical Manual of Mental Disorders (4<sup>th</sup> ed., TM)*. Washington, DC: Author.
- Armsden, G. C., & Greenberg, M. T. (1987). The inventory of parent and peer attachment: Individual differences and their relationship to psychological well-being in adolescence. *Journal of Youth and Adolescence*, 16, 427-454.
- Armstrong, J., & Roth, D. M. (1989). Attachment and separation difficulties in eating disorders: A preliminary investigation. *International Journal of Eating Disorders*, 8, 141-155.
- Bacaltchuk, J., Treliglio, R. P., Oliveira, I. R., Lima, M. S., & Mari, J. J. (1999). Antidepressants versus psychotherapy for bulimia nervosa: A systematic review. *Journal of Clinical Pharmacy and Therapeutics*, 24, 23-32.
- Baily, C. A. (1991). Family structure and eating disorders: The family environment scale and

- bulimic-like symptoms. *Youth and Society*, 23, 251-272.
- Barlow, D. H. (1993). *Clinical Handbook of Psychological Disorders: A Step-by-Step Treatment Manual* (2<sup>nd</sup> Ed). Guilford Press: New York.
- Bartholomew, K. (1990). Avoidance of intimacy: An attachment Perspective. *Journal of Social and Personal Relationships*, 7, 147-178.
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category mode. *Journal of Personality and Social Psychology*, 61, 226-224.
- Beck, R. & McDonald, A. (In Review). Attachment to God inventory: The attachment to God inventory, tests of working model correspondence, and an exploration of faith group differences.
- Becker, B., Bell., M., & Billington, R., (1987). Object relations ego deficits in bulimic college women. *Journal of Clinical Psychology*, 43, 92-95.
- Benjamin, L. S. (1974). Structural analysis of social behavior. *Psychological Review*, 81, 392-425.
- Benjamin, L. S. (1993). *Interpersonal treatment of personality disorders*. New York: Guilford Press.
- Beren, S. E., & Chrisler, J. C. (1990). Gender role, need for approval, childishness, and self-esteem: Markers of disordered eating? *Research Communications in Psychology, Psychiatry & Behavior*, 15, 183-198.
- Bowlby, J. (1969/1982). *Attachment and loss: Vol. 1 Attachment*. New York: Basic Books.
- Bowlby, J. (1988). *A secure base*. New York: Basic Books.
- Brennan, K., Clark, C., & Shaver, P. R. (1998). Self-report measurement of adult romantic



- attachment: An integrative overview. *In attachment theory and close relationships*, Simpson and Rholes (Eds), pp. 25-45. New York: Guilford.
- Brennan, K. A., Shaver, P. R., (1995). Dimensions of adult attachment, affect regulation, and romantic relationship functioning. *Personality and Social Psychology Bulletin*, 21, 267-283.
- Bretherton, I., Golby, B., & Cho, E. (1997). Attachment and transmission of values. In J. Grusec & Kuczynski (Eds.), *Parenting and children's internalization of values: A handbook of Contemporary theory* (pp. 103-134). New York: Wiley.
- Bretherton, I. (1990). Open communication and internal working models: Their role in the development of attachment relationships. In R. A. Thompson (Ed.), *Nebraska Symposium on Motivation: Vol. 36. Socioemotional development* (pp. 59-113). Lincoln: University of Nebraska Press.
- Bretherton, I. (1985). Attachment theory: Retrospect and prospect. In I. Bretherton & E. Waters (Eds.), *Growing points of attachment theory and research. Monographs of the Society for Research in Child Development*, 50 (1-2, Serial no. 209), 3-35.
- Brewerton, T. D., Hand, L. D. & Bishop, E. R. (1993). The tridimensional personality questionnaire in eating disorder patients. *International Journal of Eating Disorders*, 13, 213-218.
- Brickman, J., & Briere, J. (1984). Incidence of rape and sexual assault in an urban Canadian population. *International Journal of Women's Studies*, 7, 195-206.
- Broberg, A. G., Hjalms, I., & Nevenon, L. (2001). Eating disorders, attachment and interpersonal difficulties: A comparison between 18 to 24 –year-old patients and normal

- controls. *European Eating Disorders Review*, 9, 381-396.
- Brokaw, B. F., & Edwards, K. J. (1994). The relationship of God image to level of object relations development. *Journal of Psychology & Theology*, 22, 352-371.
- Bruch, H. (1973). *Eating disorders*. New York: Basic Books.
- Buck, R. (1980). Nonverbal behavior and the theory of emotion: The facial feedback hypothesis. *Journal of Personality and Social Psychology*, 38, 811-824.
- Bruch, H. (1982). Anorexia nervosa: Therapy and theory. *American Journal of Psychiatry*, 139, 1531-1538.
- Bufford, R. K., Paloutzian, R. F., & Ellision, C. W. (1991). Norms for the spiritual well-being scale. *Journal of Psychology and Theology*, 19, 56-70.
- Bulik, C. M., Sullivan, P. F., Weltzin, T. E., & Kaye, W. (1995). Temperament in eating disorders. *International Journal of Eating Disorders*, 17, 251-261.
- Bulkin, C. M., Sullivan, P. F., & Rorthy, M. (1989). Childhood sexual abuse in women with eating disorders. *Journal of Clinical Psychiatry*, 50, 460-464
- Calam, R. & Slade, P. (1987). Eating problems and sexual experience: Some relationships. *British Review of Bulimia and Anorexia Nervosa*, 2, 37-43.
- Calam, R., Waller, G., Slade, P., & Newton, T. (1990). Eating disorders and perceived relationship with parents. *International Journal of Eating Disorders*, 9, 479-485.
- Carlson, E. A., & Sroufe, L. A. (1995). Contributions of attachment theory to developmental psychopathology. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology* (Vol. 1, pp. 581-617). New York: Wiley.
- Cassidy, J. (1994). Emotion regulation: Influences of attachment relationships. In N. A. Fox

- (Ed.), The development of emotion regulation. *Monographs of the Society for Research in Child Development*, 59, 53-72.
- Cassidy, J., Kirsh, S. J., Scolton, K. L., & Parke, R. D. (1996). Attachment and representations of peer relationships. *Developmental Psychology*, 32, 892-904.
- Chodorow, N. (1978). Gender, relation and difference in psychoanalytic perspective, in H. Einstein & A. Jardine (Eds.), *The future of difference*. Boston: G. K. Hall.
- Cicchetti, D. (Ed.). (1996). Regulatory processes [Special issue]. *Development and Psychopathology, Regulatory Processes*, 8.
- Cole-Detke, H. & Kobak, R. (1996). Attachment processes in eating disorder and depression. *Journal of Consulting and Clinical Psychiatry*, 64, 282-290.
- Collins, N. L. (1996). Working models of attachment: Implications for explanation, emotion, and behavior. *Journal of Personality and Social Psychology*, 71, 810-832.
- Collins, N. L. (1995)
- Collins, N. L. & Read, S. J. (1994). Cognitive representations of attachment: The structure and function of working models. In: Bartholomew, Kim (Ed); Perlman, Daniel (Ed); 1994. *Attachment processes in adulthood*. London, England: Jessica Kingsley Publishers, Ltd.. pp. 53-90.
- Collins, N. L. & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology*, 58, 644-633.
- Cooper, M. L., Peirce, R. S., Tidwell, M. O., (1995). Parental drinking problems and adolescent offspring substance use: Moderating effects of demographic and familial factors. *Psychology of Addictive Behaviors*, 9, pp. 36-52.

- Cournoyer, D. E., & Rohner, R. P. (1996). Reliability of retrospective reports of perceived maternal acceptance-rejection in childhood. *Psychological Reports, 78*, 147-150.
- Coyne, J. C., (1990). Concepts for understanding marriage and developing techniques of marital therapy: Cognition über alles? *Journal of Family Psychology, 4*, pp. 185-194
- Coyne, J. C., & Bolger, N., (1990). Doing without social support as an explanatory concept. *Journal of Social & Clinical Psychology, 9*, pp. 148-158.
- Craighead, L. W. (1995). Conceptual models and clinical interventions for bulimia and binge eating. In VandeCreek, Leon and Knapp, Samuel (Eds.) *Innovations In Clinical Practice: A Source Book*. Paper provided by Dr. Williams, Dept. of Counseling Psychology, BYU.
- Crisp, A. H. (1981). Anorexia nervosa at normal body weight. The abnormal-normal weight control syndrome. *International Journal of Psychiatry in Medicine, 11*, 203-233.
- Crisp, A. H. (1980). *Anorexia nervosa: Let me be*. Hillsdale, NJ, England: Lawrence Erlbaum Associates, Inc.
- Derryberry, D., & Reed, M. A. (1996). Regulatory processes and the development of cognitive representations. *Development and Psychopathology, 8*, 215-234.
- Dozier, M., Stevenson, A., Lee, S., & Velligan, D. (1991). Attachment organization and familial overinvolvement for adults with serious psychopathological disorders. *Development and psychopathology, 3*, 269-308.
- Dunn, P. K., Ondercin, P.(1981). Personality variables related to compulsive eating in college women. *Journal of Clinical Psychology, 37*, 43-49.
- Eating disorder Referral and Information Center: International Eating Disorder Referral

- Organization. (2002). Bulimia nervosa. Available online:  
[http://www.edreferral.com/bulimia\\_nervosa.htm](http://www.edreferral.com/bulimia_nervosa.htm).
- Ellison, C. W. (1983). Spiritual well-being: Conceptualization and measurement. *Journal of Psychology and Theology, 11*, 330-340.
- Ellison, C. W., & Smith, J. (1991). Toward an integrative measure of health and well-being. *Journal of Psychology and Theology, 19*, 35-48.
- Erikson, E. H. (1959). *Identity and the Life Cycle*. Psychological Issues vol 1, #1.
- Fairburn, C. G. (1981). A cognitive-behavioral approach to the management of bulimia. *Psychological Medicine, 11*, 707-711.
- Fairburn, C. G., (1997). *Eating disorders*. In D. M. Clark & C. G. Fairburn (Eds.), Science and practice of cognitive behavioral therapy. Oxford, England: Oxford University Press.
- Fairburn, C. G., Doll, H. A., Welch, S. L., Hay, P. J., Davies, B. A., & O=Conor, M. E. (1998). Risk factors for binge eating disorder: A community-based case-control study. *Archives of General Psychiatry, 55*, 425-432.
- Fairburn, C. G., Marcus, M. D., & Wilson, G. T. (1993). *Cognitive-behavioral therapy for binge eating and bulimia nervosa: A comprehensive treatment manual*. In C. G. Fairburn & R. Wilson (Eds.), Binge eating: Nature, assessment, and treatment (pp. 361-404). New York: Guilford Press.
- Fairburn, C. G., Welch, S. L., Doll, H. A., Davies, B. A., & O=Connor, M. E. (1997). Risk factors for bulimia nervosa: A community based case-control study. *Archives of General Psychiatry, 54*, 509-517.
- Feeney, J. A. (1999). Adult romantic attachment and couple relationships. In P. R. Shaver and

- J. Cassidy (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 355-377). New York: Guilford .
- Feeney, J. A. (1994). Attachment style, communication patterns and satisfaction across the life cycle of marriage. *Personal Relationships*, 1, 333-348.
- Fonagy, T., Leight, T., Steele, M., Steele, H., Kennedy, R., Mattoon, G., Target, M., & Gerber, A. (1996). The relation of attachment status, psychiatric classification, and response to psychotherapy. *Journal of Consulting and Clinical Psychology*, 64, 22-31.
- Fox, N. A. (Ed.). (1994). The development of emotion regulation: Biological and behavioral considerations. *Monographs of the Society for Research in Child Development*, 59, 2-3.
- Freidberg, N., & Lyldon, W. (1996). Self-other working models and eating disorders. *Journal of Cognitive Psychotherapy*, 3, 193-203.
- Friedlander, M., & Siegel, S. (1990). Separation-individuation difficulties and cognitive-behavioral indicators of eating disorders among college women. *Journal of counseling Psychology*, 37, 74-78.
- Genia, V. (2001). Evaluation of the spiritual well-being scale in a sample of college students. *International Journal for the Psychology of Religion*, 11, 25-34.
- Garfinkel, P. e., Lin, e., Goering, P., Spegg, C., Goldbloom, D. S., Kenedy, S., Kaplan, A. S., & Woodside, D. B. (1995). Bulimia Nervosa in a Canadian community sample: Prevalence and comparison of subgroups. *American Journal of Psychiatry*, 152, 1052-1058.
- Garfinkel, P. E., Garner, D. M., & Goldbloom, D. S. (1987). Eating disorders: Implications for the 1990's. *Canadian Journal of Psychiatry*, 32, 624-631.
- Garner, D. M., Fairburn, C. G., Davis, R. (1987). Behavioral and cognitive-behavioral treatment

- of anorexia nervosa and bulimia nervosa. *Behavior Modification*, 11, 398-431.
- Garner, D. M., & Olmsted. M. P. (1984). *Manual for the Eating Disorder Inventory*. Odessa, FL: Psychological Assessment Resources.
- Garner, D. M., Olmsted. M. P., Polivy, J., & Garfinkel, P. E. (1982). The Eating Attitudes Test: Psychometric features and correlates. *Psychological Medicine*, 12, 871-878.
- Ghaderi, A. (2001). Review of risk factors for eating disorders: Implications for primary prevention and cognitive behavioral therapy. *Scandinavian Journal of Behaviour Therapy*, 30, 57-74.
- Gilligan, C. (1990). Remapping the moral domain: New images of the self in relationship. In Zanardi, Claudia (Ed), *Essential Paper on the Psychology of Women*. New York, NY, US: New York University Press.
- Gilligan, C. (1982). *In a different voice: Psychological theory and women's development*. Cambridge, MA, US: Harvard University Press
- Gottlieb, S., (1992). Failures in the transformational object. *British Journal of Psychotherapy*, 8, pp. 253-265.
- Greenberg, L. S., & Safran, J. D. (1987). *Emotion in psychotherapy*. New York: Guilford Press.
- Greenberg, S. (1999). Attachment and psychopathology in childhood. In P. R. Shaver & J. Cassidy (Eds.), *Handbook of attachment: Theory, research, and clinical application* (pp. 469-496). New York: Guilford.
- Grisset, N. I., & Norvell, N. K. (1992). Perceived social support, social skills, and quality of relationships in bulimic women. *Journal of Consulting and Clinical Psychology*, 60, 293-299.

- Gralen, S. J., Levine, M. P., Smolak, L.; & Murnen, S. K., (1990). Dieting and Disordered Eating During Early and Middle Adolescence: Do the Influences Remain the Same? *International Journal of Eating Disorders*, 9, p501-512
- Granqvist, P. (1998) Religiousness and perceived childhood attachment: On the question of compensation or correspondence. *Journal for the Scientific Study of Religion*, 37, 350-367.
- Granqvist, P. (2002). Attachment and religiosity in adolescence: Cross-sectional and longitudinal evaluations. *Personality and Social Psychology Bulletin*, 28, 260-270.
- Guidiano, V., & Liotti, G. (1983). Cognitive processes and emotional disorders. New York: Guilford.
- Halmi, K., Falk, J., & Schwartz, E. (1981). Binge-eating and vomiting: a survey of a college population. *Psychological Medicine*, 11, 697-706.
- Hall, T. W., & Brokaw, B. F. (1995). The relationship of spiritual maturity to level of object relations development and God image. *Pastoral Psychology*, 43, 373-391.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511-524.
- Heatherton, T. F., & Baumeister, R. F. (1991). Binge eating as escape from self awareness. *Psychology Bulletin*, 110, 86-108.
- Heesacker R., Neimeyer, G. (1990). Assessing object relations and social cognitive correlates of eating disorders. *Journal of Counseling Psychology*, 37, 419-426.
- Heesacker, R. S., & Neimy, G. J. (1995). Assessing object relations and social cognitive correlates of eating disorders. *Journal of Counseling Psychology*, 37, 419-426.



- Herzog, D. B., Nussbaum, K. M., & Marmor, A. K. (1996). Comorbidity and outcome in eating disorders. *Psychiatry Clinics of North America*, 19, 843-859.
- Herzog, D., Keller, M., Strober, M., Yeh, C. & Pai, S. (1992). The current status of treatment for anorexia nervosa and bulimia nervosa. *International Journal of Eating Disorders*, 12, 215-220.
- Hesse-Biber, S., & Marino, M. (1991). From high school to college: Changes in women's self-concept and its relationship to eating problems. *The Journal of Psychology* 125(2), 199-216.
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, 94, 319-340.
- Holden, N. L. (1991). Adoption and eating disorders: A high risk group. *British Journal of Personality and Social Psychology*, 158, 829-833.
- Hudson, W. W. (1982). *The clinical measurement package: A field manual*. Chicago: Dorsey Press.
- Hudson W. W. (1982). A measurement package for clinical workers. *Journal of Applied Behavioral Science*, 18, 229-238.
- Humphrey, L. L. (1987). Comparison of bulimic-anorexic and nondistressed families using structural analysis of social behavior. *Journal of American Academy of Child and Adolescent Psychiatry*, 26, 248-255.
- Humphrey, L. L. (1988). Relationships within subtypes of anorexic, bulimic, and normal families. *Journal of the American Academy of Child and Adolescent Psychiatry*, 27 (5), 544-551.

- Humphrey, L. L. (1989). Observed family interactions among subtypes of eating disorders using structural analysis of social behavior. *Journal of Consulting and Clinical Psychology*, 57, 206-214.
- Humphrey, L. L., Apple, R. F., Kirschenbaum, D. S. (1987). Differentiating bulimic-anorexic families using interpersonal and behavioral observation systems. *Journal of Consulting and Clinical Psychology*, 54, 190-195.
- Holleran, P. R., Pascale, J., and Fraley, J. (1988). Personality correlates of college-age bulimics. *Journal of Counseling and Development*, 66,378-381.
- Hsu, L. G., (1990). Experiential aspects of bulimia nervosa: Implications for cognitive behavioral therapy. *Behavior Modification*, 14, pp. 50-65.
- Johnson, C., & Larson, R. (1982). Bulimia: An analysis of moods and behavior. *Psychosomatic Medicine*, 44, 341-351.
- Johnson, C. (1982). Anorexia nervosa and bulimia. In T. J. Coates & A. C. Peterson (Eds.), *Promoting adolescent health: a dialog on research and practice* (pp.397-412). New York: Academic Press.
- Johnson, C., & Connors, M. E. (1987). *The etiology and treatment of bulimia nervosa*. New York: Basic Books.
- Johnson, C. & Flach, R. A. (1985). Family characteristics of bulimic and normal women: a comprehensive study. *American Journal of Psychiatry*, 142, 1321-1324.
- Johnson, S. M. (2002). Emotionally focused couple therapy with trauma survivors: Strengthening attachment bonds. New York: Guilford Press.
- Joiner, T. E., Heatherton, T. F., Rudd, M. D., Schmidt, N. B. (1997). Perfectionism, Perceived

- Weight Status, and Bulimic Symptoms: Two Studies Testing a Diathesis-Stress Model. *Journal of Abnormal Psychology*, 106, 145-153.
- Joiner, T. E., Wonderlich, S., Metalsky, G. I., & Schmidt, N. B. (1995). Body dissatisfaction: A feature of bulimia, depression, or both? *Journal of Social and Clinical Psychology*, 14, 339-355.
- Jordan, J. V. (1995). A relational approach to psychotherapy. *Women & Therapy*, 16, pp. 51-61.
- Jordan, J. V., Kaplan, A. G., Miller, J. B., Stiver, I. P., Surrey, J. L., (1991). *Women's growth in connection: Writings from the Stone Center*. New York, NY, US: Guilford Press.
- Kashubeck-West, S. (2001). Eating disorders in women: Etiology, assessment, and treatment. *The Counseling Psychologist*, 29, 627-634.
- Keelan, J. P. R., Dion, K. K., & Dion, K. L. (1998). Attachment style and relationship satisfaction: A test of a self-disclosure explanation. *Canadian Journal of Behavioral Science*, 30, 24-35.
- Keller, M. B., Herzog, D. B., Lavori, P. W., Bradburn, I. S., & Mahony, E. M. (1992). The nature history of bulimia nervosa: Extraordinarily high rates of chronicity, relapse, recurrence, and psychosocial morbidity. *International Journal of Eating Disorders*, 12, 1-9.
- Kendler, K. S., MacLean, C., Neale, M., Kessler, R., Heath, A., & Eaves, L. (1991). The genetic epidemiology of bulimia nervosa. *American Journal of Psychiatry*, 148, 1627-1637.
- Kenny, M. (1987). The extent and function of parental attachment among first-year college students. *Journal of Youth and Adolescence*, 16, 17-27.
- Kenny, M. E., & Hart, K. (1992). Relationship between parental attachment and eating disorders

- in an inpatient and a college sample. *Journal of Counseling Psychology*, 39, 521-526.
- Khaleque, A., Rohner, R. P. (2002). Perceived parental acceptance-rejection and psychological adjustment: A meta-analysis of cross-cultural and intracultural studies. *Journal of Marriage and the Family*, 64, 54-65.
- Killen, J. D., Taylor, C. B. Hayward, C., Haydel, K. F., Wilson, d. M. Hammer, L., Kraemer, H., Blair-Greiner, A., & Strachowski, D. (1996). Weight concerns influence the development of eating disorders: A 4-year prospective study. *Journal of Consulting and Clinical Psychology*, 64, 936-940.
- Kirkpatrick, L. A. (1992). An attachment-theoretical approach to the psychology of religion. *International Journal for the Psychology of Religion*.
- Kirkpatrick, L. A. (1999). Attachment and religious representations and behavior. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of Attachment Theory and Research*, pp. 803-822.
- Kirkpatrick, L. A. (1998). God as a substitute attachment figure: A longitudinal study of adult attachment style and religious change in college students. *Personality and Social Psychology Bulliten*, 24, 961-973.
- Kirkpatrick, L. A. (1997). A longitudinal study of changes in religious belief and behavior as a function of individual differences in adult attachment style. *Journal for the Scientific Study of Religion*, 36, 207-217.
- Kirkpatrick, L. A., & Shaver, P. R. (1990). Attachment theory and religion: Childhood attachment, religious beliefs, and conversion. *Journal for the Scientific Study of Religion*, 29, 315-334.

- Kirkpatrick, L. A., Shillito, D. J., & Kellas, S. L. (1999). Loneliness, social support, and perceived relationship with God. *Journal of Social and Personal Relationships*, 16, 513-522.
- Kobak, R. R., Cole, H. E., Ferenz-Gillies, R., & Fleming, W. S., (1993). Attachment and emotion regulation during mother-teen problem solving: A control theory analysis. *Child Development*, 64, pp. 231-245.
- Kobak, R. R., & Hazan, C. (1991). Attachment in marriage: Effect of security and accuracy of working models. *Journal of Personality and Social Psychology*, 60, 861-869.
- Kobak, R. R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, and representations of self and others. *Child Development*, 59, 135-146.
- Kobak, R. R., Sudler, N., & Gamble, W. (1991). Attachment and depressive symptoms during adolescence: A developmental pathways analysis. *Development and Psychopathology*, 3, 461-474.
- Koslowsky, M., Scheinberg, Z., Bleich, A., Mark, M., Apter, A., Danon, Y., & Solomon, A. (1992). The factor structure and criterion validity of the short form of the Eating Attitudes Test. *Journal of Personality Assessment*, 58, 27-35.
- Lachenmeyer, J. R., and Muni-Brander, P. (1988). Eating disorders in a non-clinical adolescent population: Implications for treatment. *Adolescence*, 23, 303-312.
- Lam, D. (2001). Cognitive behavior therapy to treating bulimia nervosa: a case study. *Counseling Psychology Quarterly*, 14, 1-13.
- Laseque, C. 1873. On hysterical anorexia. *Medical Times Gazette*, 2, 265-266.

- Ledbetter, M. F., Smith, L. A., Fischer, J. D., Vosler-Hunter, W. L., & Chew, G. P. (1991). An evaluation of the construct validity of the spiritual well-being scale: A confirmatory factor analytic approach. *Journal of Psychology and Theology, 19*, 94-102.
- Levine, M. P., Smolak, L., & Hayden, H. (1994). The relation of sociocultural factors to eating attitudes and behaviors among middle school girls. *Journal of Early Adolescence, 14*(4), 471-490.
- Lewis, R. M. (2000). *The relationship between attachment and eating disorders: A review of the literature*. Paper presented at Biola University.
- Lingswiler, V. M., Crowther, J. H., & Stephens, M. P., (1989). Emotional and somatic consequences of binge episodes. *Addictive Behaviors, 14*, pp. 503-511.
- Magai, C. (1996). *Affect, imagery, attachment*. Plenary address presented at the International Society of Research on Emotion, Toronto, Canada.
- Magai, C., Distel, N., & Liker, R. (1995). Emotion socialization, attachment, and patterns of adult emotional traits. *Cognition and Emotion, 9*, 461-481.
- Masterson, J. (1977). Primary Anorexia nervosa. In P. Hartocollins, (Ed.), *Borderline personality disorders* (pp. 475-494). New York: International University Press.
- Mathiesen, S. G., Cash, S. J., & Hudson, W. W. (2002). The multidimensional adolescent assessment scale: A validation study. *Research on Social Work Practice, 12*, 9-28.
- McCarthy, M. (1990). The thin ideal, depression, and eating disorders in women. *Behavioral Research and Therapy, 28*, 205-218.
- Meera, S. (2001, November). *A factor analytic study of the PARQ/control scale*. Poster presentation at the 63<sup>rd</sup> annual conference of the National Council of Family Relations,

Rochester, NY.

- Meyer, D. F., Russell, R. K.. (1998). Caretaking, separation from parents, and the development of eating disorders. *Journal of Counseling & Development*, 76, 166-174.
- Mikulincer, M., and Nachshon, O. (1991). Attachment styles and patterns of self-disclosure. *Journal of Personality and Social Psychology*, 61, 321-331.
- Miller, J. B. (1990). The Development of Women's Sense of Self. In Zanardi, Claudia (Ed). *Essential papers on the psychology of women* (pp. 437-454). New York, NY, US: New York University Press.
- Miller, J. B., & Stiver, I. P., (1997). *The healing connection: How women form relationships in therapy and in life*. Boston, MA, US: Beacon Press.
- Mintz, L. B., & O'Halloran, M. S. (2000). The Eating Attitudes Test: Validation with DSM--IV eating disorder criteria. *Journal of Personality and Assessment*, 74, 489-504.
- Minuchin, S., Rosman, B. L. & Baker, L. (1978). *Psychosomatic Families: Anorexia Nervosa in Context*. Harvard University Press: Cambridge, Massachusetts.
- Norman, D. K., & Herzog, D. B. (1984). Persistent social maladjustment in bulimia: A one-year follow-up. *American Journal of Psychiatry*, 143, 444-446.
- O'Kearney, R. (1996). Attachment disruption in anorexia nervosa and bulimia nervosa: A review of theory and empirical research. *International Journal of Eating Disorders*, 20, 115-127.
- Ordman, A., & Kirschenbaum, D. (1989). Bulimia: Assessment of eating, psychological adjustment, and familial characteristics. *International Journal of Eating Disorders*, 5, 865-878.

- Palazzoli, M. S. (1974). *Self-Starvation: From the Intrapsychic to the Transpersonal Approach to Anorexia Nervosa*. Human Context Books: Haywards Heath.
- Palazzoli, M. (1978). *Self-starvation*. New York: Aronson.
- Palmer, R. L., Oppenheimer, R. & Marshall, P. D. (1988). Eating-disordered patients remember their parents: A study using the Parental Bonding Instrument. *International Journal of Eating Disorders*, 7, 101-106.
- Palmer, M. (2000). *Helping people with eating disorders: A clinical guide to assessment and treatment*. Wiley & Sons: New York.
- Palazzoli, M., S. (1974). *Self-starvation: From intrapsychic to the transpersonal approach to anorexia nervosa*. Oxford, England.
- Paloutzian, R. F., & Ellison, C. W. (1982). Loneliness, spiritual well-being, and the quality of life. In L. A. Peplan & D. Peartman (Eds.), *Loneliness: A sourcebook of current theory, research and therapy*. New York: Wiley.
- Parker, G. (1990). The parental bonding instrument: A decade of research. *Social Psychiatry and Psychiatric Epidemiology*, 25, 281-282.
- Patton, G. C., & King, M. B. (1991). Epidemiological study of eating disorders: Time for a change of emphasis. *Psychological Medicine*, 21, 287-291.
- Phelps, L., Bajorek, E. (1991). Eating disorders of the adolescent: Current issues in etiology, assessment, and treatment. *School Psychology Review*, 20, 9-22.
- Pole, R., Waller, D. A., Stewart, S. M., & Parkin-Feigenbaum, L. (1988). Parental caring versus overprotection in bulimia. *International Journal of Eating Disorders*, 7, 601-606.
- Pruett, J. A., Kappius, R. E., & Gorman, P. W. (1992). Bulimia and fear of intimacy. *Journal of*



- Clinical Psychology*, 48, 472-276.
- Ramacciotti, A., Sorbello, M., Pazzagli, A., Vismara, L., & Mancone, A. (2001). Attachment processes in eating disorders. *Eating Weight Disorders*, 6, 166-170.
- Reis, H. T., (1990). The role of intimacy in interpersonal relations. *Journal of Social & Clinical Psychology*, 9, pp. 15-30.
- Richards, P. S., & Owen, L. (1996). A religiously oriented group counseling intervention for self-defeating perfectionism: A pilot study. *Counseling and Values*, 37, 96-105.
- Richards, P. S., Hardman, R. K., Frost, H. A., Berrett, M. E., Clark-Sly, J. B., & Anderson, D. K. (1997). Spiritual issues and interventions in the treatment of patients with eating disorders. *Eating Disorders*, 5(4), 261-279.
- Rohner, E. C., Chaille, C., & Rohner, R. P. (1980). Perceived parental acceptance-rejection and the development of children's locus of control. *Journal of Psychology*, 104, 83-86.
- Rohner, R. P., & Pettengill, S. M. (1985). Perceived parental acceptance-rejection and parental control among Korean adolescents. *Child Development*, 56, 524-528.
- Rothschild, B. S., Fagan, P. J., Woodall, C., & Andersen, A., (1991). Sexual functioning of female eating-disordered patients. *International Journal of Eating Disorders*, 10, pp. 389-394.
- Rowatt, W. C., Kirkpatrick, L. A. (2002). Two dimensions of attachment to God and their relation to affect, religiosity, and personality constructs. *Journal for the Scientific Study of Religion*, 41, 637-651.
- Ruderman, A. J., & Grace, P. S. (1987). Bulimics and restrained eaters: A personality comparison. *Addictive Behaviors*, 13, 359-368.

- Russell, G. F. M. (1985). The changing nature of anorexia nervosa: An introduction to the conference. *Journal of Psychiatric Research*, 19, 101-109.
- Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry*, 57, 316-331.
- Ryan, R. M., & Lynch, J. H. (1989). Emotional autonomy versus detachment: revisiting the vicissitudes of adolescences and young adulthood. *Child Development*, 60, 340-356.
- Salzman, J. (1997). Ambivalent attachment in female adolescents: Association with affective instability and eating disorders.
- Schlesier-Carter, B., Hamilton, S. A., O'Neil, P. M., & Lydiard, R. B., (1989).  
Depression and bulimia: The link between depression and bulimic cognitions. *Journal of Abnormal Psychology*, 98, pp. 322-325.
- Schwalberg, M. D., Barlow, D. H., Alger, S. A., & Howard, L. (1992). Comparison of bulimics, obese binge eaters, social phobics, and individuals with panic disorder on comorbidity across DSM-III--R anxiety disorders. *Journal of Abnormal Psychology*, 101, 675-681.
- Schwartz, M. F., & Southern, S. (1999). Manifestations of damaged development of the human affectional systems and developmentally based psychotherapies. *Sexual Addiction & Compulsivity*, 6, 163-175.
- Scott, E. L., Agresti, A. A., & Fichett, G. (1998). Factor analysis of the spiritual well-being scales and its clinical utility with psychiatric inpatients.
- Simpson, J. A. (1990). Adult romantic styles on romantic relationships. *Journal of Personality and Social Psychology*, 59, 971-980.

- Simpson, J. A., Rholes, W. S. (1998). *Attachment Theory and Close Relationships*. New York: Guilford Press.
- Simpson, J. A., Rholes, W. S., Phillips, D. (1996). Conflict in close relationships: An attachment perspective. *Journal of Personality and Social Psychology*, 72, 899-914.
- Simpson, J. A., Rholes, W. S., Nelligan, J. S. (1992). Support seeking and support giving within couples in an anxiety-provoking situation: The role of attachment styles. *Journal of Personality and Social Psychology*, 62, 434-446.
- Slaughter, J. R.; Sun, A. M (1999). In pursuit of perfection: A primary care physician=s guide to body dysmorphic disorder. *The American Academy of Family Physicians*.
- Sroufe, L. A. (1983). Infant-caregiver attachment and patterns of adaptation in preschool: the roots of maladaptation and competence. In M. Perlmutter (Ed.), *Minnesota Symposia on Child Psychology: Vol. 16. Development and policy concerning children with special needs (pp. 41-83)*. Hillsdale, NJ: Erlbaum.
- Sroufe, L. A. & Egeland, B. (1991). Illustrations of person-environment interaction from a longitudinal study. In T. D. Wachs & R. Plomin (Eds.), *Conceptualization and measurement of organism-environment interactions (pp. 68-86)*. Washington DC: American Psychological Association.
- Steiger, H., Leung, F. Y., Puentes-Neuman, G. (1992). Psychosocial profiles of adolescent girls with varying degrees of eating and mood disturbances. *International Journal of Eating Disorders*, 11, 121-131.
- Steiger, H., Stotland, S., Ghadirian, A. M. (1995). Controlled study of eating concerns and psychopathological traits in relatives of eating-disordered probands: Do familial traits

- exist? *International Journal of Eating Disorders*, 18, 107-118.
- Steiger, H., Van der Feen, J., Goldstein, C., & Leichner, P. (1989). Defense styles and parental bonding in eating-disordered women. *The International Journal of Eating Disorders*, 8, 131-140.
- Stern, L., (1991). Disavowing the self in female adolescence. *Women & Therapy*, 11, pp. 105-117.
- Stern, L. (1990). Conceptions of separation and connection in female adolescents. Gilligan, Carol; Lyons, Nona P.; & Hanmer, Trudy J. (Eds); (pp. 73-87). Cambridge, MA, US: Harvard University Press.
- Stein, K. F. (1996). The self-schema model: A theoretical approach to the self-concept in eating disorders. *Archives of Psychiatric Nursing*, 10(2), 96-109.
- Stein, R. I., Saelens, B. E., Douchis, J. Z., Lewczyk, C. M., Swenson, A. K., & Wilfley, D. E. (2001). Treatment of eating disorders in women. *The Counseling Psychologist*, 29, 695-732.
- Steinberg, B. E., Shaw, R. J. (1997). Bulimia as a disturbance of narcissism: Self-esteem and the capacity to self-soothe. *Addictive Behaviors*, 22, Sep-Oct 1997. pp. 699-710.
- Stice, E., & Agras, W. S. (1998). Predicting onset and cessation of bulimic behaviors during adolescence: A longitudinal grouping analysis. *Behavior Therapy*, 29, 257-276.
- Strauman, T. J. (1989). Self-discrepancies in clinical depression and social phobia: Cognitive structures that underlie emotional disorders? *Journal of abnormal Psychology*, 98, 5-14.
- Strauman, T. J., & Glenberg, A. M. (1994). Self-concept and body-image disturbance: Which self-beliefs predict body size overestimation? *Cognitive Therapy and Research*, 18, 105-

125.

- Strauman, T. J., Vookles, J., Berenstein, V., Chaiken, S., & Higgins, E. T. (1991). Self-discrepancies and vulnerability to body dissatisfaction and disordered eating. *Journal of Personality and Social Psychology*, 61, 946-956.
- Striegel-Moore, R. H. (2001). Etiology of eating disorders in women. *The Counseling Psychologist*, 29, 635-661.
- Strober, M., & Humphrey, L. L. (1987). Familial contributions to the etiology and course of anorexia nervosa and bulimia. *Journal of Consulting and Clinical Psychology*, 55, 654-659.
- Sugarman, A., & Kurash, C. (1982). The body as a transitional object in bulimia. *International Journal of Eating Disorders*, 1, 17-36.
- Surrey, J. L., (1983). Self-in-relations: A theory of women's development. *Advanced development*, 5, pp. 1-11.
- Tantillo, M. (2000). Short-term relational group therapy for women with bulimia nervosa. *Eating Disorders: The Journal of Treatment and Prevention*, Vol 8(2), pp. 99-121.
- Tantillo, M., & Sanfter, J. (2003) The relationship between perceived mutuality and bulimic symptoms, depression, and therapeutic change in group. *Eating Behaviors* Vol 3(4), pp. 349-364.
- Thompson, R. A. (1999). Early attachment and later development. In J. Cassidy & P. R. Shaver (Eds). *Handbook of attachment: Theory, research, and clinical application* (pp. 268-286). New York: Guilford Press.
- Thompson, R. A. (1994). Emotion regulation: A theme in search of a definition. In N. A. Fox

- (Ed.). The development of emotion regulation: Biological and behavioral considerations. *Monographs of the Society for Research in Child Development*, 59, 25-52.
- Villejo, R. E., Humphrey, L. L., & Kirschenbaum, D. S. (1997). Affect and self-regulation in binge eaters: Effects of activating family images. *Families and Self-Regulation*.
- Vohs, K. D., Voelz, Z. R., Pettit, J. W., Bardone, A. M., Katz, J., Abramson, L. Y., Heatherton, T. F., Joiner, T. E. Jr., (2001). *Perfectionism, body dissatisfaction, and self-esteem: An interactive model of bulimic symptom development*. *Journal of Social & Clinical Psychology*, 20, 476-497.
- Vohs, K. D., Bardone, A. M., Joiner, T. E., Abramson, L. Y., Heatherton, T. F. (1999). Perfectionism, Perceived Weight Status, and Self-Esteem Interact to Predict Bulimic Symptoms: A Model of Bulimic Symptom Development. *Journal of Abnormal Psychology*, 108, 695-700.
- Waller, G., Calam, R., & Slade, P. (1989). Eating disorders and family interaction. *British Journal of Clinical Psychology*, 28, 285-286.
- Waller, D. A., Petty, F., Hardy, B. W., Gullion, C. M., Murdock, M. V., & Rush, A. J. (1993). Tridimensional personality questionnaire and serotonin in bulimia nervosa. *Psychiatry Research*, 48, 9-15.
- Ward, A., Ramsay, R., Turnbull, S., Benedettini, M., Treasure, J. (2000). Attachment patterns in eating disorders: Past in the present. *International Journal of Eating Disorders*, 28, 370-276.
- Welch, S. L., & Fairburn, C. G. (1994). Sexual abuse and bulimia nervosa: Three integrated case control comparisons. *American Journal of Psychiatry*, 151, 402-407.

- Weinfield, N., Sroufe, L. A., Egeland, B. (1999). Attachment from infancy to early adulthood in a high-risk sample: Continuity, discontinuity, and their correlates. *Child development*,
- Weiss, R. S. (1982). Attachment in adult life. In C. M. Parkes & J. Stevenson-Hinde (Eds.), *The place of attachment in human behavior* (pp. 171-184). New York: Basic Books.
- Westen, D. & Harnden-Fischer, J. (2001). Personality profiles in eating disorders: Rethinking the distinction between Axis I and Axis II. *American Journal of Psychiatry*, 158, 547-562.
- Williams, C. R. (1988). The relationship of parental alcoholism, psychological separation, and parental rejection, to depression in college students. Thesis, University of Minnesota Graduate School.
- Williamson, D. A., Anderson, D., Jackman, L. P., & Jackson, S. R. (1995). Assessment of eating disordered thoughts, feelings, and behaviors. In D. Allisson (Ed), *Handbook of assessment methods for eating behaviors and weight-related problems*, pp. 303-346. Thousand Oaks, Ca: Sage.
- Wilson, G. T., & Fairburn, C. G. (1993). Cognitive treatments for eating disorders. *Journal of Consulting and Clinical Psychology*, 61, 261-269.
- Wilson, G. T., Pike, K. M. (1993). [Eating disorders](#). In Barlow, David H. (Ed); 1993. *Clinical handbook of psychological disorders: A step-by-step treatment manual* (2nd ed.), pp. 278-317. New York, NY, US: Guilford Press.
- Wonderlich, S. A. (1992). *Relationship of family and personality factors in bulimia nervosa. Paper presented at the Fourth London International Conference on Eating Disorders*, London, England.

Wonderlich, S. A., Brewerton, T. D., Jolic, Z., Dansky, B. S., & Abbott, D. W. (1997).

Relationship of childhood sexual abuse and eating disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36, 1107-1115.

Wonderlich, S. A., & Swift, W. J. (1990). Perceptions of parental relationships in eating disorders. *Journal of Abnormal Psychology*, 99, 353-360.

Yudkovitz, E. (1983). Bulimia: Growing awareness of eating disorder. *The National Association of Social Workers, Inc.*