NARROWING THE SCOPE OF EATING DISORDER RISK FACTORS:
SOCIOCULTURAL, FAMILIAL AND INDIVIDUAL DOMAINS

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by
Denni Alyse Rollins
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APPROVED BY THE DEAN OF GRADUATE STUDIES
AND VICE PROVOST OF RESEARCH:

________________________________________
E. K. Park, Ph.D.

APPROVED BY THE GRADUATE ADVISORY COMMITTEE:

________________________________________
LINDA KLINE, Ph.D.

________________________________________
ARTHUR SANCHEZ, Ph.D.
DEDICATION

This work is dedicated to my parents – I wouldn’t be where I am today without their love, support and generosity. They have made all of this possible.
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I would like to thank Dr. Linda Kline who has shown an enormous amount of patience and dedication to see me through what has become an extra-long process, providing comedic relief along the way. I would also like to thank Dr. Art Sanchez for his continued support and insightful conversations that have helped me learn and grow throughout the last several years. Finally, I would like to thank the counselors who generously helped distribute my questionnaires to their clients.
ABSTRACT

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The most widely accepted approach in trying to understand the etiology of eating disorders is the biopsychosocial model which incorporates a wide range of risk factors. The present study attempts to narrow the scope of risk factors by incorporating three risk domains – sociocultural, familial, and individual. Three hypotheses are proposed comparing an eating disordered group to a comparison group across the specified domains, then focusing more specifically on anorexia nervosa and bulimia nervosa. Participants completed measures of sociocultural, familial and individual risk factors. A series of t-tests were conducted and found significant differences in perceived maternal and paternal bonding and ineffectiveness between the ED group and comparison group. One significant difference was found between AN and BN: AN scored higher on perceived pressure. Limitations and suggestions for future research are discussed.
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CHAPTER I

INTRODUCTION

Background

Western societies have experienced the growth of eating disorders over the last 50 years. In the late 1960s, there was a dramatic increase in the prevalence of anorexia nervosa (AN) as young females began to starve themselves (Polivy & Herman, 2002). In the 1970s, a biopsychosocial theory was proposed that challenged the widely accepted medical description of AN (Striegel-Moore & Cachelin, 2001). The biopsychosocial theory took a more holistic approach than the medical model and emphasized the role of developmental factors and family dynamics. Feminist theorists offered another model to describe AN which focused strictly on the cultural influences, specifically women’s subordinate role in a male-dominated society.

A new eating disorder, bulimia nervosa (BN), was introduced in the late 1970s in which young women alternated between starving themselves and bingeing, usually followed by purging (Polivy & Herman, 2002). With the emergence of BN, two theoretical models were put forth in attempts to understand the etiology of this disorder. Russell followed the medical model and first described BN as an “ominous variant” of AN (as cited in Striegel-Moore & Cachelin, 2001). The feminist perspective, on the other hand, proposed that BN was a culture-bound syndrome and attributed risk factors to Western societies’ gender role stereotypes and the obsession with beauty and thinness.
Eating disorders are one of the most common psychiatric problems faced by women and girls and are characterized by chronicity and relapse (Fairburn, Cooper, Doll, Norman, & O’Connor, 2000) and one of the most dangerous in that AN has the highest mortality rate of all mental disorders (Agras, 2001). Mortality (including suicide) rates a just over 5% (Herzog et al., 2000). Currently, lifetime prevalence estimates of AN and BN are .9% and 1.5% among women and .3% and .5% among men with a mean age of onset of 18.9 and 19.7 (Hudson, Hiripi, Pope & Kessler, 2007). Prevalence estimates increase from a range of 3% to 10% for at-risk females (those between 15 and 29 years of age), with BN outnumbering AN by at least two to one (Polivy & Herman, 2002). Individuals with eating disorders often also suffer from comorbid psychiatric disorders such as depressive, anxiety, personality, and substance use disorders (Agras, 2001; Blinder, Cumella & Sanathara, 2006).

As the prevalence of eating disorders increases in Western societies, so does empirical research studying the etiology of AN and BN (e.g., Fulkerson, Keel, Leon, & Dorr, 1999; Haworth-Hoeppner, 2000; Leon, Fulkerson, Perry, Keel, & Klump, 1999; Stice, 2001). Countless researchers, theorists and clinicians have attempted to identify what causes eating disorders. The most widely accepted approach in trying to understand that risk factors of eating disorders is the biopsychosocial model (Polivy & Herman, 2002). The biopsychosocial model benefits from taking into account a wide range of factors, from the broadly cultural (e.g., thin-beauty ideal and gender roles) to the more specific biological (e.g., genetics and neuroendocrine factors) and everything in between (Jacobi, Hayward, de Zwaan, Kraemer & Agras, 2004; Polivy & Herman, 2002; Striegel-
Moore & Cachelin, 2001). It examines social factors, such as family dynamics and peer influences, psychological factors, including depression and perfectionism, in addition to other contexts (e.g., cognitive, developmental, learning and adverse life events). Due to the vast nature of the biopsychosocial model, it lacks specificity and each version of the biopsychosocial model differs from the next (Polivy & Herman, 2002). Based on these shortcomings, the model demonstrates inconsistency in empirical research wherein results vary from very strong to very weak support of the model (Jacobi, Hayward et al., 2004).

Although a significant amount of research has been dedicated to the attempt to understand AN and BN and numerous risk factors have been identified, the etiology of these eating disorders remain unclear. Thus, the treatment for eating disorders is difficult. Approximately one third of eating disordered individuals continue to meet diagnostic criteria five years or longer after beginning treatment (Fairburn et al., 2000; Keel, Mitchell, Miller, Davis & Crow, 1999). If not treated, eating disorders may become chronic conditions with severe medical, behavioral, and emotional consequences (Agras, 2001; Stice, 2001).

Purpose of the Study

Today, it appears that body dissatisfaction, a widely accepted precursor to the development of eating disorders (e.g., Graber, Brooks-Gunn, Paikoff & Warren, 1994; Leon, et al., 1999; Stice 2001; Wertheim, Koerner & Paxton, 2001), is becoming the norm in Western societies in that approximately 40%–50% of women express some level of body dissatisfaction (Bearman, Presnell, Martinez, & Stice, 2006; Monteath &
McCabe, 1997). Many individuals who express body dissatisfaction do not progress into developing an eating disorder, but it is still unclear as to why some engage in extreme starving, bingeing and/or purging behavior while others simply remain dissatisfied without engaging in those behaviors (Polivy & Herman, 2002).

Eating disorder research has identified over 40 different variables as possible risk factors (for a list of factors, see Appendix A [Jacobi, Hayward et al., 2004; Polivy & Herman, 2002; Striegel-Moore & Cachelin, 2001]). The widely accepted biopsychosocial model integrates these various identified risk factors (Leung, Geller & Katzman, 1996; Gowers & Shore, 2001; Polivy & Herman, 2002), but lacks specificity and fails to distinguish which of these identified risk factors are the most influential in the etiology of eating disorders (Polivy & Herman, 2002). Thus, it has been recommended that future research should seek to clarify the relative importance of identified risk factors in addition to those risk factors for specific eating disorders (Stice, 2002). Furthermore, future researcher has been suggested to try to adequately measure the entire range of risk domains and the various risk factors wherein the various risk factors can be considered within an integrative framework (Striegel-Moore & Cachelin, 2001).

The present study attempts to address those recommendations by identifying three distinct risk domains of AN and BN. In addition, the present study attempts to differentiate the two eating disorders and identify the strongest correlated risk domain for each. This study incorporates the biopsychosocial model of eating disorders by focusing on three distinct risk domains, cultural, familial and individual, while maintaining specificity of the risk factors. In doing so, this study will address several questions. First,
do eating disordered and non-eating disordered individuals differ in specific risk domains? Second, what risk factors are more closely associated with AN? And what risk factors are more closely associated with BN?

Limitations of the Study

The primary limitation of this study is its inability to conduct experimental research, thus limiting the results to potential correlates of eating disorders. Due to this limitation, causal factors for eating disorders cannot be determined; however, this study attempts to detect the most significant risk factors for both AN and BN and, by doing so, at risk populations can be identified more accurately.

Secondly, this study is following the biopsychosocial model for eating disorders which may create vagueness in the conclusions. The biopsychosocial model, while incorporating all significant risk factors, prevents specificity in theories of the etiology of eating disorders. In attempt to avoid ambiguity, this study has specified three distinct risk domains (sociocultural, familial and individual) by measuring limited variables. This may, however, create another limitation in its own. While limiting the variables from each risk domain prevents ambiguity, it may not capture the entirety of the domain.

Definition of Terms

The present study refers to eating disorders (ED) as meeting DSM-IV-TR diagnostic criteria (American Psychiatric Association [APA], 2000).

Anorexia Nervosa (AN)
A. Refusal to maintain body weight at or above a minimally normal weight for age and height (e.g., weight loss leading to maintenance of body weight less than 85% of that expected; or failure to make expected weight gain during a period of growth, leading to body weight less than 85% of that expected).

B. Intense fear of gaining weight or becoming fat, even though underweight.

C. Disturbance in the way in which one’s body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight.

D. In postmenarcheal females, amenorrhea, i.e., the absence of at least three consecutive menstrual cycles. (A woman is considered to have amenorrhea if her periods occur only following hormone, e.g., estrogen, administration.)

**Bulimia Nervosa (BN)**

A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:

1. eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances

2. a sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating)

B. Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting; misuse of laxative, diuretics, enemas, or other medications; fasting; or excessive exercise.
C. The binge eating and inappropriate compensatory behavior both occur, on average, at least twice a week for 3 months.

D. Self-evaluation is unduly influenced by body shape and weight.

E. The disturbance does not occur exclusively during episodes of Anorexia Nervosa.
CHAPTER II

LITERATURE REVIEW

Sociocultural Risk Factors

Background

Young women in Western society are inundated with messages that instill the notion that happiness, beauty and success are achieved by being ultra-thin. Due to the media’s emphasis on the ultra-thin beauty ideal, substantial research has focused on the role cultural factors play in the development and maintenance of eating disorders (e.g., Levine & Murnen, 2009; Stice, 2001; Striegel-Moore & Bulik, 2007; Striegel-Moore, Silberstein, & Rodin, 1986; Thompson & Stice, 2001). Empirical evidence suggests sociocultural variables are important risk factors for the development of body dissatisfaction, which is a casual risk factor for eating pathology (Stice, 2002). Such research findings have led to the adoption of the sociocultural model of eating pathology which suggests that social pressure to be thin fosters an internalization of the thin beauty ideal and body dissatisfaction, which places individuals at risk for dieting, negative affect, and eating pathology (Striegel-Moore et al., 1986).

Historically, dominant beauty ideals have fluctuated. Between the 1400s and 1700s the beauty ideal was a woman who was voluptuous, big-breasted, and generally maternal in appearance (Fallon, 1990). Banner describes the dominating beauty trends of the 19th century which included two polar opposites – the “steel engraving lady” and the
“voluptuous woman” (Mazur, 1986). The steel engraving lady represented a body that was short and slight, rounded and curved. This body type with large breasts, a small waist and a bell-shaped lower torso was the preferred ideal until the mid-1800s when it started being challenged by a bustier, hippier, heavy-legged look. The voluptuous ideal peaked in the 1880s and many young women worried about being too thin, they used padding and they ate in excess. The 1920s was a time of increased feminist activity in which the “flapper” represented the ideal of feminine beauty. Evidence of dramatic outbreak of disordered eating accompanied the adoption of this beauty ideal (Hesse-Biber, Leavy, Quinn, & Zoino, 2006). The 1950s returned to the voluptuous, hourglass figure in which these women were depicted in films and magazines and were considered the aesthetic standard (Hesse-Biber et al., 2006).

Garner, Garfinkel, Schwartz, and Thompson (as cited in Owen & Laurel-Seller, 2000) reported a significant decrease in the body measurements and weights of Playboy centerfolds and Miss America Pageant contestants from 1959 to 1979. The authors’ analyses of Miss America Pageant contestants revealed that contestants’ weight decreased significantly each year, and for most of the years, pageant winners weighed significantly less than other contestants. Wiseman, Gray, Mossiman and Ahrens (1990) expanded on this research to include 1979 to 1989 and found a continuation of the ultra-thin trend. The authors reported that 69% of the Playboy centerfolds and 60% of the pageant contestants studied weighed at least 15% less than expected (as suggested by actuarial tables). Since the 1960s, the ultra-thin beauty ideal has dominated popular
culture and the trend toward increasing thinness in media depictions of women remains (Owen & Laurel-Seller, 2000; Wiseman, et al., 1990).

The onset of eating disorders often occurs during adolescence, a critical period of socialization and identity development (Arnett, 1995; Thomsen, McCoy, & Williams, 2001). Media influences adolescents’ socialization process, emphasizing specific gender role learning and the adoption of core values and beliefs of what women should look like and how they should behave (Klein et al., 1993; Thomsen et al., 2001). While the exact role that media plays in adolescents’ development of eating disorders remains unclear, there are social psychological theories that provide insight and greater understanding. These theories, cultivation theory, uses and gratification theory, social comparison theory, and objectification theory, can be combined to create a more holistic view of the relationship between media and eating disorders which allows for a more accurate approach in research.

**Cultivation Theory**

Gerbner, Gross, Morgan, and Signorielli’s (1994) cultivation theory suggests that the more media a person is exposed to, the more likely they are to perceive the most common and recurrent messages of the various media forms as realistic (as cited in Hesse-Biber et al., 2006; Holstrom, 2004; Morgan & Shanahan, 2010). Common themes can be extracted from the messages that media presents, including (1) being sexually attractive is of paramount importance; (2) the sources of ideals about beauty, style, and the best practices for becoming and staying beautiful are located outside the self; and (3) mass media are the most important and inherently enjoyable “external” source of the
information, motivation, and products necessary to be attractive and fashionable (Ballentine & Ogle, 2005; Labre & Walsh-Childers, 2003; Levine & Murnen, 2009).

The ultra-thin beauty ideal that the media portrays leads some women to believe that what they are seeing is, in fact, realistic and attainable (Holstrom, 2004). Stice, Schupak-Neuberg, Shaw, and Stein (1994) found a direct relation between media exposure and eating disorder symptomology. This finding coincides with the cultivation theory and supports the notion that exposure to the thin beauty ideal in the media is related to eating pathology and suggests that women may imitate disordered eating behavior presented in the media (Stice et al., 1994).

Hesse-Biber and colleagues (2006) note that cultivation theory is based on an additive model of social influence; that the more exposure, the greater the risk of developing an eating disorder. However, the authors point out that the theory fails to consider women’s resistance to the messages portrayed by the media and presumes that being a woman is the main explanatory factor. While exposure to media has been found to be an important component of the development of eating disorders (e.g., Irving, 1990; Stice et al., 1994), a greater understanding is needed of the specific factors of the consumer as to why some women develop eating disorders and not others.

**Uses and Gratification Theory**

Uses and gratification theory emphasizes the role of individuals – how they choose to expose themselves to the media and how they act upon their interpretations of the messages (Hesse-Biber et al., 2006). The influence of the media does not lie exclusively in exposure and content, but it is also dependent on personal motivations and
one’s own predispositions in media selection and imitation of certain behaviors (Hesse-Biber et al., 2006). For example, Tiggeman and Pickering (1996) reported that among girls, body dissatisfaction and drive for thinness were associated with increased exposure to certain types of television shows. While this finding might appear to suggest a causal relationship in that exposure to the thin ideal leads to body dissatisfaction, the authors dispute that conclusion as it may be that those who are most dissatisfied with their bodies or wish they were thinner seek out particular types of media.

The uses and gratification theory takes into consideration the variability among women who are exposed to similar amounts of media, but who have different degrees and types of eating pathology. Research findings suggest that body dissatisfaction prior to viewing images of media’s portrayal of the ideal woman accounts for the variability – the more dissatisfied one is with her body, the more dissatisfied she will become after viewing such images (Posavac, Posavac, & Posavac, 1998). While the uses and gratification theory considers the role of the individual in addition to the content and exposure of media, it lacks clarification on the social and psychological components behind what motivates women to pay attention to the media (Hesse-Biber et al., 2006).

Social Comparison Theory

Festinger’s social comparison theory asserts that: (1) individuals have a drive to evaluate their opinions and abilities; (2) in the absence of objective, nonsocial criteria, individuals engage in social comparison; and (3) whenever possible, social comparisons are made with similar others (as cited in Morrison, Kalin, Rudolf, & Morrison, 2004). More recent research has updated this theory adding that individuals may compare
themselves to those who they are dissimilar and comparisons may involve physical appearance and eating habits (Morrison et al., 2004). The social comparison theory suggests social and psychological processes that impact women’s susceptibility to the influences of media (Hesse-Biber et al., 2006).

The affective consequences of the comparison process are dependent on the direction of the comparison (whether it is upward or downward) and by the characteristics of the target (whether it is universalistic or particularistic; Morrison et al., 2004). Research suggests that downward comparison (comparing oneself to someone worse off on the feature of interest) enhances subjective well-being, whereas upward comparison (comparing oneself to someone better off on the feature of interest) decreases well-being (Morrison et al., 2004; Wheeler & Miyake, 1992). Additionally, universalistic targets (distant sources of influence such as mass media) generally elicit greater pressure to conform to the ideal beauty standard than particularistic targets (more intimate sources such as friends and family; Irving, 1990; Morrison et al., 2004).

Social comparisons focusing on physical appearance are usually upward, meaning that women tend to compare themselves to other women they view as more attractive (Morrison et al., 2004; Wheeler & Miyake, 1992). These upward comparisons generally result in negative self-perception of attractiveness (Morrison et al., 2004) and comparison to media images creates greater pressure to achieve the idealized standards (Irving, 1990; Morrison et al., 2004).

Objectification Theory
Fredrickson and Roberts’ (1997) objectification theory asserts that the sexual objectification in this culture serves to socialize girls and women to view themselves as objects that are to be evaluated based on appearance. Girls learn the importance of being attractive and that their physical appearance can determine how they are treated. Thus, girls and women become preoccupied with their appearance as a way of controlling how they are viewed and treated.

This perspective addresses the near universality of body dissatisfaction among women (Fredrickson & Roberts, 1997). Researchers argue that women’s concerns with weight control are so pervasive that they reflect a “normative discontent” that women experience toward their bodies (Rodin, Silberstein, & Streigl-Moore, 1984). Thus, eating disorders are viewed as the extreme end of this normative discontent; women with eating disorders are engaging in such behaviors in order to attain the body they are expected to have (Fredrickson & Roberts, 1997; Rodin et al., 1984). Engaging in starvation and purging creates a sense of control over one’s body and feelings of thinness which work to alleviate, to some degree, body dissatisfaction (McCarthy, 1990).

The four theories described each present a unique outlook when attempting to understand the sociocultural factors associated in the development and maintenance of eating disorders, including media exposure and content, individual tendencies, social comparisons and normative discontent among women. Considering such factors, two constructs have garnered particular attention when researching eating disorders: perceived pressure to be thin and internalization of a thin ideal in the media (Cafri, Yuko, Brannick, & Thompson, 2005; Stice, 2002; Thompson & Stice, 2001). It is with these
two constructs that one begins to understand how the presented sociocultural theories operate within a person in the development and maintenance of eating disorders.

**Perceived Pressure**

Perceived pressure from the media to be thin is thought to be particularly influential in the development of eating disorder symptomology (Levine, Smolak, Moodey, Shuman, & Hessen, 1994; Thompson, Van den Berg, Roehrig, Guarda, & Heinberg, 2004). Pressure to be thin fosters an internalization of the thin ideal and body dissatisfaction, which then puts individuals at risk for dieting, negative affect, and eating pathology (Striegel-Moore et al., 1986).

Research has found perceived pressure to be thin predicted increases in body dissatisfaction, dieting and negative affect (Stice, 2001; Stice & Bearman, 2001; Wertheim et al., 2001). Such pressure also predicted onset of binge eating (Stice, Presnell, & Spangler, 2002) and bulimic symptomology (Stice & Agras, 1998), as well as increases in eating pathology (Wertheim et al., 2001).

**Internalization**

Sociocultural factors are hypothesized to contribute to the development of eating disorders through internalization of the thin ideal and body dissatisfaction (Stice & Bearman, 2001). Internalization is the incorporation or acceptance of specific values to the point that one’s attitudes and behavior are altered in an attempt to achieve the ideal (Thompson & Stice, 2001). Internalization of the thin ideal has received a great deal of attention as a measure of risk for developing and maintaining eating disorders (Durkin & Paxton, 2002; Harrison & Cantor, 1997; Stice, 2001; Thompson & Stice, 2001).
Garner, Olmstead and Polivy (1983) posit that internalization of the thin ideal and the overvaluation of appearance increase body dissatisfaction, which in turn promotes dieting, negative affect and disordered eating. Exposure to the thin ideal in media was found to be correlated with thin ideal internalization and symptoms of eating disorders (Harrison & Cantor, 1997). Researchers found internalization of the thin ideal predicted the onset of binge eating (Stice et al., 2002) and bulimic symptoms (Stice & Agras, 1998; Stice et al., 2002) and increases eating disorder symptoms (Wichstrom, 2000), in addition to bulimic symptom maintenance (Stice & Agras, 1998). Such research findings suggest that thin ideal internalization is a causal risk factor for body dissatisfaction, dieting, negative affect and bulimic pathology, as well as a maintenance factor for bulimic pathology (Stice, 2002); however, causality cannot be proven, but merely speculated.

Stice and associates (Stice & Shaw, 2002; Stice, Shaw, & Nemeroff, 1998) offer a model to explain the relationship between sociocultural pressure and disordered eating. It asserts that perceived pressure to be thin leads to disordered eating through internalization of cultural ideals and body dissatisfaction. This model is supported by research that has found the predictive power of perceived pressure (Ricciardelli & McCabe, 2001) and internalization (Stormer & Thompson, 1996) as it relates to eating disorder. Thus, perceived pressure and internalization are thought to have a direct and mediated effect on disordered eating (Stice & Shaw, 2002).

In a meta-analysis exploring the influence of sociocultural factors on body image, Cafri and colleagues (2005) found that sociocultural factors, specifically
internalization and perceived pressure, have medium-to-large associations with body image. This finding has important research implications in that internalization and perceived pressure should be assessed as predictors of body image attitudes.

Familial Influences

Family Perspective

Family environment has received significant attention in its contribution to the development and maintenance of eating disorders (e.g., Haworth-Hoeppner, 2000; Herzog, Kronmüller, Hartmann, Bergmann, & Kröeger, 2000; Minuchin, Rosman, & Baker, 1978; Pike & Rodin, 1991; Rieves & Cash, 1996). The family perspective argues that individuals develop their body image, whether normal or distorted, in the context of family life; thus, familial influences has been suggested to be the primary focus of research (Leung, Schwartzman, & Steiger, 1996; Rieves & Cash, 1996). The family perspective is supported by research that has found a correlational relationship between family dysfunction and disordered eating; as family dysfunction increased, disordered eating increased (Lundholm & Waters, 1991; Wisotsky et al., 2003).

While some proponents of the family perspective criticize the cultural approach, Haworth-Hoeppner (2000) argues that culture does in fact play a role in the development of eating disorders, but that the influence is mediated through the family. The family acts as a medium through which individuals interpret cultural messages of thinness and body image. It is the extent to which the family transmits these messages to other members and the manner in which it is done that provide an understanding in the processes of body image development and disordered eating (Haworth-Hoeppner, 2000).
A great deal of eating disorder research has focused on familial influences and numerous variables have been identified as being significantly related. These variables are extensive; however common themes can be identified, including (1) conflict (Felker & Stivers, 1994; Kent & Clopton, 1992; Shisslak, McKeon, & Crago, 1990); (2) expectations (Laliberté, Boland & Leichner, 1999); (3) criticism (Haworth-Hoeppner, 2000; Ogden & Steward, 1999); (4) care (Bulik, Sullivan, Fear, & Pickering, 2000; Swanson, et al., 2009); (5) control/overprotection (Haworth-Hoeppner, 2000; Rorty, Yager, Rossotto, & Buckwalter, 2000). These five overriding themes provide a holistic view of the familial influences on the development and maintenance of eating disorders.

**Family Conflict**

In studies examining family influences on eating disorders, it has been widely found that individuals with eating disorders report different aspects of their family structure (e.g., interaction, communication, cohesion, affective expression) as more disturbed, pathological or dysfunctional than do controls (e.g., Felker & Stivers, 1994; Kent & Clopton, 1992; Lundholm & Waters, 1991; Shisslak et al., 1990; Wisotsky, 2003). While families of individuals with both anorexia nervosa and bulimia nervosa are characterized by conflict, there tends to be a distinction in family functioning between the two eating disorders (Bennighoven, Scheider, Strack, Reich, & Cierpka, 2003; Lazter & Gaber, 1998; Minuchin et al., 1978).

In a study examining family interactions among eating disordered families, Kog and Vanderyecken (1989) found that anorexic families revealed significantly less disagreement than the non-eating disordered families, and the individuals with anorexia
perceived their family as more cohesive than both the bulimics and the controls. This finding can be explained by the common clinical observation that the families of individuals with anorexia nervosa present a strong facade of togetherness and avoid overt conflict (Latzer & Gaber, 1998; Minuchin et al., 1978; Shugar & Krueger, 1995).

Withdrawal from conflicts and a lack of resolution tend to characterize these families (Latzer & Gaber, 1998). Minuchin and colleagues (1978) describe these families as being in a state of constant and unresolved conflict. Typically, there is a pattern of conflict escalation that is abandoned at the peak of intensity without addressing the underlying problem, creating a repetitive cycle of conflict and avoidance (Latzer & Gaber, 1998). These behaviors operate in order to rigidly fix family interactions in an inflexible parody of apparent harmony (Minuchin et al., 1978).

On the other hand, individuals with bulimia nervosa tend to perceive more conflict and disorganization in their family than individuals with anorexia nervosa and non-eating disordered individuals (Garner, Garfinkel, & O'Shaughnessy, 1985; Kog & Vandereyecken, 1989). Families of individuals with bulimia nervosa tend to have a conflictual family atmosphere with a lack of conflict resolution and low levels of cohesion (Benninghoven et al., 2003; Kog & Vandereyecken, 1989), expressiveness (Benninghoven et al., 2003) and communication (Waller, Slade, & Calam, 1990).

**Parental Expectations**

It has been suggested that families of individuals with eating disorders tend to emphasize the importance of appearances by encouraging members to look good physically, socially and in terms of their accomplishments, thus reinforcing the Western
culture values (Laliberté et al., 1999). Laliberté and colleagues (1999) found that an emphasis on family appearance and achievement was strongly related to disordered eating behaviors. This finding is consistent with other research that suggests that the dieting behavior of an individual with bulimia reflects the family’s attempt to conform to the standards of self-restraint, success and physical appearance (Humphrey & Stern, 1988).

Waller and Hartley (1994) examined parenting styles in eating disordered and non-eating disordered families. The individuals with eating disorders perceived their parents as abnormally disapproving and as having abnormal expectations. Furthermore, there were distinct differences between the individuals with anorexia and those with bulimia. The findings suggest that individuals with anorexia believe that maternal standards are too high and unachievable and, thus, disapproval is unavoidable; whereas individuals with bulimia feel that there are inadequate maternal expectations. Both cases typically result in perceived uncontrollable and continuous failure, leading to dissatisfaction and low self-esteem (Waller & Hartley, 1994).

Parental Criticism

A critical family environment is a significant familial characteristic that has been associated with eating disorders (Haworth-Hoeppner, 2000). Studies have found that parents of individuals with eating disorders are more critical of their daughters’ physical appearance (Smolak, Levine, & Schermer, 1999) and are more likely to tease their daughters about her appearance (Annus et al., 2007; MacBrayer et al., 2001) or encourage dieting (Wertheim, Martin, Prior, Sanson, & Smart, 2002).
A dominating discourse on weight, including criticism of weight or appearance and prejudicial attitudes about weight, in a critical family environment has been the focus of some research (Haworth-Hoeppner, 2000). Research suggests that continuous talk and criticism about weight underscores its importance in the family dynamics and predisposes individuals to value thinness and to attribute thinness to adapting in the family. A main discourse on weight creates a common outlook in which thinness is a defining characteristic. One’s family is the most influential group in identity development, thus members in a family that values thinness are likely to embrace those values as well (Haworth-Hoeppner, 2000).

**Parental Care**

Individuals with eating disorders have consistently reported low parental care and warmth (Bulik et al., 2000; Calam, Waller, Slade, & Newton, 1989; Swanson et al., 2009). Low parental care has been found to affect attitudes about eating, dieting, weight and shape in weight-concerned individuals and has been associated with higher levels of eating problems (Haudek, Rorty, & Henker, 1998). Reeves and Johnson (1992) found low levels of empathy, respect for others, openness and trust to be predictive of the development of eating disorders.

Individuals with eating disorders tend to perceive their parents as less nurturing (Vidović, Jureša, Begovac, Mahnik, & Tocilj, 2005) and comforting and less understanding toward them than non-eating disordered individuals (Humphrey, 1986). The research, thus, suggests an association between perceived low levels of parental care
and the presentation and maintenance of eating disorder symptoms (Swanson et al., 2009).

Control/overprotection

The literature on parental control/overprotection is somewhat inconsistent. Some researchers (e.g., Leung, Thomas, & Waller, 2000; Rhodes & Kroger, 1992) have found parental control to be associated with eating disorders. In examining parental bonding in eating disordered and non-eating disorders women, Leung and colleagues (2000) found women with eating disorders reported their mothers as being more controlling than did the non-eating disordered women. Additionally, fathers of women with bulimia nervosa were reported as being more controlling than were fathers of women with anorexia nervosa or non-eating disordered women.

Other researchers (e.g., Swanson et al., 2009) have found no significant differences between individuals with anorexia and non-eating disordered individuals on measures of both maternal and paternal control. To account for the inconsistency it is hypothesized that parental control/overprotection may operate in combination with low parental care; in that the combined effect of the two variables is associated with eating disorders (Swanson et al., 2009).

The family environment that individuals with anorexia and bulimia are exposed to appears to hinder the development of a stable identity, autonomy and self-efficacy. This environment, characterized by poor conflict resolution, distorted expectations, criticism and a combination of low parental care and high parental control, has been implicated in the development and maintenance of eating disorders (Haworth-
Hoeppner, 2000; Minuchin et al., 1978; Pike & Rodin, 1991) however there is no single mechanism or pathway of influence (Strober & Humphrey, 1987). Strober and Humphrey (1987) suggest that certain personality factors predispose individuals to greater vulnerability to family dysfunction which results in low self-efficacy and self-esteem which then triggers an eating disorder. In other words, it is suggested that that the family environment creates a vulnerable individual who is at risk of developing an eating disorder.

**Individual Risk Factors**

Many factors specific to the individual have been suggested to contribute to the development of eating disorders (Polivy & Herman, 2002). These factors consist of experiences (e.g., childhood sexual abuse and trauma), affective influences, (e.g., self-esteem and body dissatisfaction), cognitive influences (e.g., obsessive thoughts and perfectionism), and biological influences (e.g., genetics and neuroendocrine factors). The individual risk factors are wide-ranging and comprehensive. Self-concept deficits of individuals with eating disorders are considered necessary core symptoms for a diagnosis (APA, 2000), thus, it is of current interest to focus on affective influences and cognitive influences, specifically negative affect, self-esteem, body dissatisfaction, and control.

**Negative Affect**

It is unlikely for negative affect to cause eating disorders on its own; however, certain affective characteristics are commonly reported antecedents for eating disorders (Ball & Lee, 2000; Stice, 2001; Stice, Killen, Hayward, & Taylor, 1998). For example, women with eating disorders score higher than controls in suppressed anger (Geller et al.,
2000) and depressive affect (Grilo, 2004). Negative affect has been found to predict
increases in eating disorder symptoms (Wertheim et al., 2001) and bulimic symptoms
(Cooley & Toray, 2001; Stice, 2001). However, other studies have found relations of
negative affect to increases in eating pathology to be not significant (e.g., Keel,
Fulkerson, & Leon, 1997; Leon et al., 1999).

The affect regulation model proposes that people binge eat in an effort to
provide comfort and distraction from negative emotions (Haedt-Matt & Keel, 2011;
Stice, 2002). In response to the binge eating, individuals might engage in extreme
compensatory behaviors (e.g., vomiting) to reduce anxiety about weight gain following
overeating or because purging may serve as an emotional release (Stice, 2002).

Self-esteem

Low self-esteem has been described as a core feature of eating disorders (e.g.,
Button, Loan, Davies, & Sonuga-Barke, 1997; Courtney, Gamboz, & Johnson, 2008;
Cooley & Toray, 2001; Geller et al., 1998). Individuals with eating disorders possess
traits associated with low self-esteem, including problems with self-image, excessive
concern over weight and body shape, global dissatisfaction and higher dissatisfaction
with their physical appearance (Button et al., 1997).

Self-esteem has been found to moderate perfectionism and feeling overweight
in predicting bulimic symptoms (Vohs, Bardone, Joiner, Abramson, & Heatherton, 1999).
Women high in perfectionism, who consider themselves overweight exhibit bulimic
symptoms only if they have low self-esteem whereas women with high self-esteem and
consider themselves overweight are less likely to exhibit bulimic symptoms.
Prospective studies have looked at the outcome of individuals with eating disorders and low self-esteem. Low self-esteem and negative affect predicted eating disorder symptoms four years later (Leon, Keel, Klump, & Fulkerson, 1997). Additionally, lower self-esteem predicts worse eating disorder outcomes (Hesse-Biber, Marino, & Watts-Roy, 1999; van der Ham, van Strien, van Engeland., 1998), whereas women who recover from eating disorders report an increase in self-esteem (Troop, Schmidt, Turnbull, & Treasure, 2000).

**Body Dissatisfaction**

Negative affect and negative feelings about the self are directed more specifically into body dissatisfaction in individuals with eating disorders (Polivy & Herman, 2002). Body dissatisfaction is at the forefront of virtually all conceptualizations of eating disorders and it has been suggested as to have a prominent causal role (Cooley & Toray, 2001; Leon et al., 1999; Stice, 2001; Wertheim et al., 2001; Wichstrom, 2000).

Body dissatisfaction increases the risk for eating disorder symptoms (Leon et al., 1999; Wichstrom, 2000). Theoretically, body dissatisfaction promotes dieting and negative affect, which increases the risk for eating pathology (Bruch, 1962). Although body dissatisfaction is reported by over 50% of young women, only a small subset of these individuals exhibit symptoms of eating pathology (Stice, Ng, & Shaw, 2010).

Most of the variables associated with eating disorders operate through body dissatisfaction (Polivy & Herman, 2002). For example, media influence is thought to facilitate eating disorders by enhancing women’s dissatisfaction with their appearance.
However, while body dissatisfaction is a necessary component of eating disorders, it alone cannot account for the development and maintenance.

**Control**

Past researchers (e.g., Garner et al., 1985; Sassaroli, Gallucci, & Ruggiero, 2008; Serpell, Treasure, Teasdale, & Sullivan, 1999; Waller, 1998) have found that women with eating disorders have an external locus of control; that is, they perceive themselves as having low levels of control over events and their own lives, compared to those without eating disorders. Sassaroli and colleagues (2008) suggest, that for individuals with eating disorders, the generalized perceived lack of control over their environment and themselves may create a pervasive sense of anxiety. In order to gain a feeling of control and predictability in their lives, these individuals commonly restrict their experience and focus on eating and body weight. There is often a sense of pride in one’s ability to control one’s eating that accompanies the maintenance of eating disorders (Serpell et al., 1999).

**Ineffectiveness**

Ineffectiveness, defined as feelings of general inadequacy, insecurity, worthlessness and the feeling of not being in control of one's life (Garner, Olmstead, & Polivy, 1983), seems to capture the essence of self-concept deficits. Bruch (1962) described “a paralyzing sense of ineffectiveness, which pervades all thinking and activities” (p. 191) as a core feature of individuals with eating disorders, specifically anorexia nervosa. Researchers have found significant differences in ineffectiveness, in that individuals with eating disorders (anorexia nervosa as well as bulimia nervosa)
display higher ineffectiveness than non-eating disordered individuals (e.g., Garner et al., 1983; Jacobi, Paul, de Zwaan, Nutzinger, & Dahme, 2004). It is because ineffectiveness incorporates a number of the most salient self-concept deficits that it will be of primary focus in the present study to represent the individual risk factors.

Present Study

The present study aims to develop a greater understanding of the etiology of eating disorders. The biopsychosocial model is currently the most widely accepted approach in trying to identify eating disorder risk factors (Polivy & Herman, 2002); however, it incorporates such a broad range of risk factors that it lacks enough specificity to clarify relative importance of each risk factor. The present study attempts to narrow the scope of risk factors by incorporating three risk domains – sociocultural, familial, and individual – and define the domains with specific factors. The risk domains, as defined in this study, will provide a specific conceptualized approach in understanding the etiology of eating disorders while still adhering to the diverse outlook comparable to the biopsychosocial model.

This study presents three hypotheses. Hypothesis 1 (H1): Eating disordered participants will score higher on all three risk domains – sociocultural as measured by perceived pressure from the media and internalization of the thin beauty ideal, familial as measured by parental expectations, criticism and care, and individual as measured by ineffectiveness – than healthy controls. H2: AN will be more closely related to the individual domain as measured by ineffectiveness – feelings of inadequacy, insecurity, worthlessness, having no control over their lives – than the familial or sociocultural
domain. H3: BN will be more closely related to the sociocultural domain as measured by perceived pressure from the media and internalization of the thin beauty ideal than the familial or individual domain.
CHAPTER III

METHODOLOGY

Participants

Participants consisted of 72 females ranging in age from 17 to 73 years with mean age of 27.25 years, $SD = 11.41$. The participants in the ED group consisted of 22 females who reported having been diagnosed with an eating disorder – eight participants reported a diagnosis of AN and 14 participants reported a diagnosis of BN to make up the two ED subgroups. The mean ages for the AN and BN group were 29.25 years, $SD = 17.51$ years, and 34.00 years, $SD = 15.52$ years, respectively. Participants in the comparison group consisted of 50 female university undergraduate and graduate students who reported never having been diagnosed with an eating disorder. The mean age for the comparison group was 25.04 years, $SD = 7.89$ years.

Materials

Participants were given a questionnaire that consisted of subscales from five different measures: the Sociocultural Attitudes Towards Appearance Scale-3 (SATAQ-3; Thompson et al., 2004), the Multidimensional Perfectionism Scale (MPS; Frost, Marten, Lahart, & Rosenblate, 1990), the Parental Bonding Instrument (PBI; Parker, Tupling, & Brown, 1979), and the Eating Disorder Inventory (EDI; Garner et al., 1983).

Sociocultural Attitudes Towards Appearance Scale-3
The SATAQ-3 (Thompson et. al, 2004) is designed to measure of the effect of media’s thin body ideal. This 30-item self-report measure is comprised of four subscales: Pressures, Internalization- General, Internalization-Athlete, and Information. Two subscales were used in the present study, Internalization-General, nine items (e.g., “I compare my body to the bodies of people who are on TV”) and Pressures, seven items (e.g., “I've felt pressure from TV or magazines to lose weight”), in order to assess the sociocultural risk domain. Cronbach’s alphas on these subscales were high: Internalization-General (.92) and Pressures (.94). Participants rate their responses on a 5-point Likert scales, ranging from 1 (definitely disagree) to 5 (definitely agree). The responses are added together and higher scores indicate a higher level of perceived pressure and internalization.

**Multidimensional Perfectionism Scale**

The Multidimensional Perfectionism Scale (MPS; Frost et al., 1990) is designed to measure perfectionistic tendencies. The 35 item measure consists of six subscales: Concern Over Mistakes, Personal Standards, Parental Expectations, Parental Criticism, and Organization. The present study used two of the six subscales: Parental Expectations, five items (e.g., “My parents wanted me to be the best at everything”), and Parental Criticism, four items (e.g., “My parents never tried to understand my mistakes”). Items are rated on a 5-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree) and added together with high scores indicating higher levels of parental criticism and expectations. Internal reliability for the Parental Expectations and Parental
Criticism was .57 and .91, respectively, in a sample of college students (Parker & Adkins, 1994).

Parental Bonding Instrument

The PBI (Parker et al., 1979) was designed to measure perceived parental behavior during the first 16 years of life (Swanson et al., 2009). The 25 item measure consists of 12 “Care” items and 13 "Overprotection" items. The participant addresses both mother and father independently. The present study used the 12 “care” items (e.g., “Was affectionate to me”) for both the mother and father, garnering two scores: maternal care and paternal care. The PBI uses a 4-point Likert type rating ranging from 0 (very unlike) to 3 (very like). Parents can be categorized as high care or low care based on the summation of the results. High scores on care reflect a parent who was perceived to be warm and understanding, and low scores reflect a parent who was perceived as cold and rejecting. Reliability of each scale was high, with a Cronbach’s alpha ranging from .89 to .91 (Stöber, 1998).

Eating Disorder Inventory

The EDI (Garner et al., 1983) is a 64 item measure comprised of eight subscales: Drive for Thinness, Interoceptive Awareness, Bulimia, Body Dissatisfaction, Ineffectiveness, Maturity Fears, Perfectionism, and Interpersonal Distrust. The present study used the 10 item Ineffectiveness subscale (e.g., “I feel inadequate”), which assesses feelings of inadequacy, insecurity, worthlessness and having no control over one’s life. Participants respond to six point items (always = 3, usually = 2, often = 1, sometimes =0, rarely = 0, and never = 0) and the responses are added together with higher scores
indicating more severe behaviors/thoughts. Reliability for the Ineffectiveness subscale was high in both AN samples and female comparison samples, with a Chronbach’s alpha of .90 and .86, respectively.

Procedure

Prior to obtaining data, approval was obtained from the Human Subjects in Research Committee, the University’s official Institutional Review Board. Treatment centers throughout California were contacted to recruit participants with eating disorders for the study. Four clinicians, located in San Francisco, Los Angeles, and Orange County, and the Chico, CA responded willing to help and were mailed a packet including informed consents, questionnaires, debriefings and instructions to follow. The clinicians provided their clients who were willing to take part in the study with an informed consent explaining the nature of the study, emphasizing that it was voluntary and anonymous. Once the informed consents were signed and returned to the clinician, participants completed the questionnaire. Upon completion, a debriefing was given to participants that detailed the study’s purpose and provided them with contact information. The clinicians mailed the completed informed consents and questionnaires back to the researcher.

The control group participants consisted of California State University, Chico students who were acquired through three recruiting channels. First, informed consents were given to students in an undergraduate psychology class and informed of the voluntary nature of the study. Students signed the informed consent, agreeing to participate in the study. Questionnaires were distributed and participants completed them,
taking an average of 15 minutes. Upon completion, participants were given a debriefing. Second, informed consents and questionnaires were provided to graduate students in a counseling class. Those who participated, 8 of 15, returned the completed informed consents and questionnaires to the professor the next day which were then returned to the researcher. Lastly, student employees of the University’s child development lab were recruited during a weekly staff meeting. Students were informed of the voluntary nature of the study and volunteered to participate. After signing the informed consents, participants completed the questionnaire and were given the debriefing.
CHAPTER IV

RESULTS

Description of Sample

The eating disorder group comprised 30.6% of the sample and consisted of 22 female participants – eight participants reported a diagnosis of AN and 14 participants reported a diagnosis of BN. There was a significant difference in body mass index (BMI) for the AN group ($M = 19.73$, $SD = 4.27$) and BN group, $M = 25.49$, $SD = 4.73$; $t (19) = -2.71$, $p = .014$ (two-tailed). The non-eating disorder comparison group comprised 69.4% of the sample and consisted of 50 female participants. This group had a mean BMI of 25.04, $SD = 6.48$. There was a trend approaching significance in age for the eating disorder group ($M = 32.27$, $SD = 16.02$) and the comparison group, $M = 25.04$, $SD = 7.89$; $t (70) = 2.01$, $p = .055$ (two-tailed).

Eating Disorder Group and Comparison Group

A series of independent samples t-tests were conducted to compare the ED group to the control group across the three identified risk domains – sociocultural, familial and individual. There was a significant difference in perceived maternal bonding for the ED group ($M = 19.18$, $SD = 13.16$) and comparison group, $M = 26.50$, $SD = 8.68$; $t (70) = -2.39$, $p = .024$ (two-tailed) as well as in perceived paternal bonding for the ED group ($M = 14.09$, $SD = 10.65$) and comparison group, $M = 22.00$, $SD = 10.13$; $t (70) =$ -
3.01, $p = .004$ (two-tailed). These results support hypothesis 1 in that the ED group perceives a poorer bond with both their mother and father. There was a significant difference in feelings of ineffectiveness for the ED group ($M = 11.59, SD = 9.69$) and comparison group, $M = 2.84, SD = 5.08; t (70) = 4.00, p = .000$ (two-tailed) which supports the hypothesis that the ED group possesses greater feelings of general inadequacy, insecurity, worthlessness and the feeling of not being in control of one's life.

There was no significant difference in scores for the ED group and comparison group in perceived pressure from the media, internalization of media or parental expectations and criticism.

**AN Group and BN Group**

A series of independent samples t-tests were conducted to compare the AN group to the BN group across the three risk domains. There was a significant difference in perceived pressure from the media for the AN group ($M = 29.38, SD = 4.59$) and BN group, $M = 23.43, SD = 6.41; t (20) = 2.30, p = .032$ (two-tailed) counter to the hypothesis that BN would be more closely related to perceived pressure from the media. There were no significant differences between the AN and BN groups in internalization of media, perceived maternal and paternal bonding, parental expectations and criticism or feelings of ineffectiveness.
CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The overarching goal of this study is to narrow the scope of risk factors to provide a specific conceptualized approach in understanding the etiology of eating disorders. The most widely accepted approach in understand eating disorders is the biopsychosocial model (Polivy & Herman, 2002). This model considers several risk domains (e.g., biological, individual, psychological, social, and cultural) and incorporates a comprehensive view of risk factors in each domain. This approach accurately captures the broad range of eating disorders, but it fails to distinguish between the most influential risk factors and those that are more secondary in nature. This study seeks to identify three significant risk domains and identify specific, influential risk factors that accurately define the domains in order to create a more concise way of understanding the etiology of eating disorders.

Culture and media have garnered significant attention as they relate to eating disorders (e.g., Levine & Murnen, 2009; Stice, 2001; Striegel-Moore & Bulik, 2007; Striegel-Moore, Silberstein, & Rodin, 1986; Thompson & Stice, 2001). Media portrays an ultra-thin beauty ideal that females believe to be realistic even though, for most, it is unattainable (Holstrom, 2004). It has been suggested that perceive pressure to be thin
leads to disordered eating through internalization of cultural ideals and body
dissatisfactions (Stice & Shaw, 2002; Stice, Shaw et al., 1998). Perceive pressure and
internalization of the thin beauty ideal seem to be prominent variables in media’s
influence on eating disorders so the present study used both to define the sociocultural
domain.

The family perspective asserts that individuals develop their body image,
whether normal or distorted, in the context of family life; thus, familial influences has
been suggested to be the primary focus of research (Leung, Schwartzman, & Steiger,
1996; Rieves & Cash, 1996). Numerous variables have been identified in the familial
domain and five common themes can be identified, including (1) conflict (Felker &
Stivers, 1994; Kent & Clopton, 1992); (2) expectations (Laliberté, Boland & Leichner,
1999); (3) criticism (Haworth-Hoeppner, 2000; Ogden & Steward, 1999); (4) care (Bulik,
Sullivan, Fear, & Pickering, 2000; Swanson, et al., 2009); (5) control/overprotection
(Haworth-Hoeppner, 2000; Rorty, Yager, Rossotto, & Buckwalter, 2000). These five
themes provide a holistic view of the familial influences on the development and
maintenance of eating disorders.

Many factors specific to the individual have been suggested to contribute to
the development of eating disorders (Polivy & Herman, 2002). Self-concept deficits of
individuals with eating disorders are considered necessary core symptoms for a diagnosis
(APA, 2000). Ineffectiveness accurately represents such self-concept deficits (e.g.,
general inadequacy, insecurity, worthlessness and the feeling of not being in control of
one's life) and is used to define the individual domain in the present study.
This study presents three hypotheses. H1: Eating disordered participants will score higher on all three risk domains – sociocultural as measured by perceived pressure from the media and internalization of the thin beauty ideal, familial as measured by parental expectations, criticism and care, and individual as measured by ineffectiveness – than healthy controls. H2: AN will be more closely related to the individual domain than the familial or sociocultural domain. H3: BN will be more closely related to the sociocultural domain than the familial or individual domain.

Hypotheses

Hypothesis 1
The first hypothesis was partially supported in that there was a significant difference between the eating disordered group and the comparison group in ineffectiveness, maternal care, and paternal care. As expected, the significant difference in ineffectiveness between the two groups demonstrates greater feelings of inadequacy, insecurity, worthlessness and having no control over one’s life in the eating disorder group than the comparison group. Congruent with the hypothesis, the eating disorder group perceived their relationship with both their mother and father as cold and rejecting whereas the comparison group reported warm and understanding relationships with both their mother and father. Significant findings between the eating disorder and comparison group in feelings of ineffectiveness and parental care may suggest that individuals with eating disorders don’t feel worthy of their parents’ care and affection and, thus, perceive a more cold and rejecting relationship.
No significant differences were found in parental expectations and criticism between the eating disorder group and comparison group. This may be explained by an absence of items addressing parental expectations and criticism toward weight and appearance directly which has been found to be strongly associated with eating disorders (e.g., Crowther, Kichler, Sherwood, & Kuhnert, 2002; Haworth-Hoeppner, 2000; Laliberté et al., 1999).

There was a lack of support for the first hypothesis with no significant differences between the two groups in the sociocultural domain in both perceived pressure from the media and internalization of the thin beauty ideal. This finding is not consistent with past research that has emphasized the influence of perceived pressure in the development of eating disorder symptomology (e.g., Levine, Smolak, Moodey, Shuman, & Hessen, 1994; Thompson, Van den Berg, Roehrig, Guarda, & Heinberg, 2004) and identified internalization as a measure of risk for developing and maintaining eating disorders (e.g., Durkin & Paxton, 2002; Harrison & Cantor, 1997; Stice, 2001; Thompson & Stice, 2001).

In the face of such overwhelming support for the influence of perceived pressure and internalization from past research, it calls into question the current findings. The failure to find significant differences between the two groups may be explained by Stice’s notion that identity confusion may moderate the internalization of sociocultural pressure to be thin (as cited in Durkin & Paxton, 2002). He proposed that those lacking a strong sense of self may look to cultural ideals in an attempt to gain a sense of identity. The comparison group scored moderate on perceived pressure ($M = 24.50, SD = 5.81$)
and internalization \((M = 28.74, SD = 7.41)\) reporting that they neither agree nor disagree that they perceive pressure from the media or internalize the thin beauty ideal. Considering Stice’s proposal, perhaps the comparison group, comprised entirely of college undergraduate and graduate students with a mean age of 25.04 years \((SD = 7.89)\), have developed a strong identity and do not seek to define themselves by the cultural ideals. The eating disordered group also scored moderate on perceived pressure \((M = 28.74, SD = 7.41)\) and internalization \((M = 30.59, SD = 8.93)\) suggesting they also neither agree nor disagree that they perceive pressure or internalize the thin beauty ideal. This group was comprised of individuals with a mean age of 32.27 years \((SD = 16.02)\) who were in treatment for eating disorders. This also lends itself to Stice’s proposal in that individuals in counseling undergo a great deal of self-exploration and discovery so it can be assumed that the eating disordered participants are in the process of developing a strong sense of identity. These individuals may now seek to define themselves through their collaborative work with their counselors whereas they may have in the past turned to culturally defined ideals.

**Hypothesis 2**

The second hypotheses addressed the eating disordered group more specifically and examined AN and BN independently. The second hypothesis was not supported because no significant difference was found between AN and BN in ineffectiveness. These findings are not consistent with past research that has suggested that AN and BN may involve a different composition of risk factors, specifically psychological variables (e.g., Dobmeyer & Stein, 2003; Garner et al., 1983).
Psychological variables, including ineffectiveness, interpersonal distrust, perfectionism, and interoceptive awareness may be more relevant to AN than BN (Garner et al., 1983). The current study may have failed to find significant differences in the individual domain between AN and BN due to the small sample size. The AN group consisted of eight participants and the BN group consisted of 14 which may not have been enough to adequately represent the population.

**Hypothesis 3**

The third hypothesis focused on differences between the two eating disorder subgroups in the sociocultural domain. This hypothesis was not supported by the findings. There was no significant difference between AN and BN on internalization of the thin beauty ideal. Stice’s identity confusion proposal (as cited in Durkin & Paxton, 2002) may help to explain this finding as well. Both AN and BN scored moderate on internalization of the thin beauty ideal ($M = 34.13, SD = 10.08; M = 28.57, SD = 7.88$, respectively) which suggests neither group particularly internalizes the culturally defined ideal. As mentioned previously, participants in the AN and BN group were in treatment. Individuals in both groups may now turn to their counselor rather than seeking to define themselves by the media.

There was a significant difference between AN and BN on perceived pressure from the media with AN scoring higher. This contradicts the hypothesis suggesting AN perceives greater pressure from the media. The AN group scored moderately high on perceived pressure ($M = 29.38, SD = 4.60$) which suggests, although they may not internalize the thin beauty ideal, they report feeling pressure from the media. The BN
group scored moderate on perceived pressure ($M = 23.43$, $SD = 6.41$) which suggests they neither agree nor disagree with feeling pressure from the media. Perhaps the participants in the BN group can help to explain the findings. Three participants in the BN group reported being recovered, on average 21.67 years, and no one in the AN group reported being recovered. It is assumed that these individuals have developed a stronger sense of self than those who are currently more affected by their eating disorder and are not pressured by the media. These individuals may have slightly skewed the data resulting in findings that are not consistent with past research (Stice & Agras, 1998).

Limitations and Recommendations

The present study had limitations that should be addressed for future research. First, the participants in the study had a mean age of 27.25 years ($SD = 11.41$). The onset of eating disorders often occurs during adolescence which is a critical period of identity development (Arnett, 1995; Thomsen et al., 2001). The sample in the present study was older suggesting that they have already developed a sense of self and are less affected by culturally defined beauty ideals. The sociocultural domain was not accurately represented, perhaps, in part due to the age of the sample. Future research should target adolescents to obtain a more accurate portrayal of how the media affects the socialization process and identity development as it relates to eating disorders.

Second, participants in the eating disordered group were actively in treatment and some reported being recovered. This suggests these individuals are not as affected by the variables that may have influenced the development of their eating disorder. It would be beneficial for future research to provide a measure to assess the degree to which
individuals are currently engaged in disordered eating to more accurately represent the sample.

Lastly, the present study lacked significant findings in parental expectations and criticism perhaps because it failed to adequately encompass the risk factor in the questionnaire. It is believed that parental expectation and criticism is a relevant risk factor and should be included in future research. More specific items regarding parental expectation and criticism directed toward weight and appearance should be added when examining the risk factor.

Despite these limitations, the present data suggests specific differences between eating disordered and non-eating disordered individuals that may aid in prevention and treatment of eating disorders. This research may lend itself to the therapeutic setting by acknowledging an integrative framework of risk factors. Counseling professionals may be advised to view eating disorders perhaps as a network of a few influential risk factors that work together in the development and maintenance of eating disorders.

The risk factors discussed are not limited to eating disorders. The familial and individual domains, in particular, are likely to influence various types of maladaptive behaviors (e.g., substance abuse, cutting, etc.). Eating disorders may be one of many outcomes of these various risk factors. Future research may benefit by extending the focus and compare eating disorders with other maladaptive behaviors.

This study provides a framework for future research to continue to narrow down the scope of risk factors of eating disorders to make it more specific and
manageable when understanding the etiology of eating disorders while maintaining a diverse outlook comparable to the biopsychosocial model. This framework also lends itself beyond eating disorders to other maladaptive behaviors that may operate within similar risk domains.
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POTENTIAL RISK FACTORS FOR
EATING DISORDERS

Demographic Characteristics
  Gender
  Race/ethnicity
  Sex role orientation; for males: homosexuality

Sociocultural Factors
  Thin beauty ideal
  Gender roles
  Participation in weight-related social or professional subculture (dancer, model, athlete, gymnasts, etc.)

Familial and Interpersonal Factors
  Parental obesity
  Parental psychopathology
  Family interaction/communication style, expressed emotion
  Adequacy of parenting
  Peer influences

Developmental Factors
  Adolescent age
  Premorbid obesity, higher body mass index
  Childhood picky eating, problem eating, pica
  Childhood feeding and digestive problems
  Teasing/critical comments about weight and shape
  Early pubertal maturation
  Childhood anxiety disorders

Adverse Life Events
  Sexual or physical abuse
  Other stressful or adverse life events

Psychological and Behavioral Factors
  Dieting, restrained eating
Overconcern with weight and shape, body dissatisfaction/negative body image, high drive for thinness
Low interoceptive awareness
Low self-esteem
Depression, anxiety disorders, substance and/or alcohol abuse problems, affective instability
Attachment style
Self-awareness
High-level exercise

Cognitive Factors
Obsessive thoughts
Perfectionism
Dissociation
Cognitive style
Cognitive bias

Biological factors
Genetic factors
Neuroendocrine and metabolic disturbances
Changes in receptor density
Electroencephalogram changes
Changes in regulation of hunger and satiety

(Jacobi, Hayward et al., 2004; Polivy & Herman, 2002; Striegel-Moore & Cachelin, 2001)
Informed Consent

Thank you for taking the time to complete this survey. It will take about 15 minutes to complete. There are four parts to this survey. The first part includes questions about your attitudes about the media. The second and third parts include questions about your relationship with both your mother and father. Finally, the last part includes feelings about yourself. You will read the questions and record your answers. Participation is voluntary and there is no penalty for non-participation. The services provided for you at the treatment center will not be affected if you choose not to participate. You can withdraw from participation at any time without penalty or reprisal; however, only completed surveys will be used in the study.

Your responses to this survey will be confidential. You will print and sign your name on this consent form. This consent form will be kept separate from the survey. The survey contains questions that are personal in nature and may cause minor stress. If you would like to talk with someone about this stress, your counselor at the treatment center is prepared to discuss this with you. The information is for a research study being conducted by Denni Rollins, a graduate student in psychology at CSU, Chico under the supervision of Linda Kline. Additional information, including contact information, will be provided to you at the conclusion of your participation.

Thank you for you participation,

Denni Rollins
Marriage and Family Therapy trainee
Department of Psychology
California State University, Chico

I acknowledge that I have read the above explanation of the research study and I agree to participate.

______________________________________________________________________________
Print Name

______________________________________________________________________________
Signature                                      Date
**Questionnaire**

This is a scale which measures a variety of attitudes, feelings and behaviors. Some of the items relate to food and eating. Others ask you about your feelings about yourself and family. There are no right or wrong answers so try to be completely honest in your answers. **Results are completely confidential.**

Please read each of the following items carefully and indicate which best reflects your agreement with the statement.

<table>
<thead>
<tr>
<th></th>
<th>Definitely Disagree</th>
<th>Mostly Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Mostly Agree</th>
<th>Definitely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I've felt pressure from TV or magazines to lose weight.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>I do not care if my body looks like the body of people who are on TV.</td>
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</tr>
<tr>
<td>I compare my body to the bodies of people who are on TV.</td>
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</tr>
<tr>
<td>I do not feel pressure from TV or magazines to look pretty.</td>
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<tr>
<td>I would like my body to look like the models who appear in magazines.</td>
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<tr>
<td>I compare my appearance to the appearance of TV and movie stars.</td>
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</tr>
<tr>
<td>I've felt pressure from TV and magazines to be thin.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>I would like my body to look like the people who are in movies.</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>I do not compare my body to the bodies of people who appear in magazines.</td>
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<tr>
<td>I've felt pressure from TV or magazines to have a perfect body.</td>
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<tr>
<td>I wish I looked like the models in music videos.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>I compare my appearance to the appearance of people in magazines.</td>
<td></td>
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</tr>
<tr>
<td>I've felt pressure from TV or magazines to diet.</td>
<td></td>
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</tr>
<tr>
<td>I've felt pressure from TV or magazines to exercise.</td>
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<tr>
<td>I've felt pressure from TV or magazines to change my appearance.</td>
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<tr>
<td>I do not try to look like the people on TV.</td>
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</tr>
</tbody>
</table>
This questionnaire lists various attitudes and behaviors of parents. As you remember your **MOTHER** (or primary mother figure) in your first 16 years, please indicate the most appropriate box next to each question.

<table>
<thead>
<tr>
<th></th>
<th>Very like</th>
<th>Moderately like</th>
<th>Moderately unlike</th>
<th>Very unlike</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spoke to me in a warm and friendly voice.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Did not help me as much as I needed.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Seemed emotionally cold to me.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Appeared to understand my problems and worries.</td>
<td></td>
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<tr>
<td>Was affectionate to me.</td>
<td></td>
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<tr>
<td>Enjoyed talking things over with me.</td>
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<tr>
<td>Frequently smiled at me.</td>
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<td></td>
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<tr>
<td>Did not seem to understand what I needed or wanted.</td>
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</tr>
<tr>
<td>Made me feel I wasn’t wanted.</td>
<td></td>
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</tr>
<tr>
<td>Could make me feel better when I was upset.</td>
<td></td>
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<tr>
<td>Did not talk with me very much.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Did not praise me.</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

This questionnaire lists various attitudes and behaviors of parents. As you remember your **FATHER** (or primary father figure) in your first 16 years, please indicate the most appropriate box next to each question.

<table>
<thead>
<tr>
<th></th>
<th>Very like</th>
<th>Moderately like</th>
<th>Moderately unlike</th>
<th>Very unlike</th>
</tr>
</thead>
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<tr>
<td>Spoke to me in a warm and friendly voice.</td>
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<td></td>
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<tr>
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<tr>
<td>Did not talk with me very much.</td>
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<tr>
<td>Did not praise me.</td>
<td></td>
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</tbody>
</table>
Please select the option that best reflects your opinion.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree or Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My parents set very high standards for me.</td>
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<tr>
<td>As a child, I was punished for doing things less than perfectly.</td>
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<tr>
<td>My parents never tried to understand my mistakes.</td>
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<tr>
<td>My parents wanted me to be the best at everything.</td>
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<tr>
<td>Only outstanding performance is good enough in my family.</td>
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<tr>
<td>My parents have expected excellence from me.</td>
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<tr>
<td>I never felt like I could meet my parents’ expectations.</td>
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<tr>
<td>My parents have always had higher expectations for my future than I have.</td>
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<tr>
<td>I never felt like I could meet my parents’ standards.</td>
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</table>

Please select the option which applies best for you.

<table>
<thead>
<tr>
<th></th>
<th>Always</th>
<th>Usually</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
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</thead>
<tbody>
<tr>
<td>I feel ineffective as a person.</td>
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<tr>
<td>I feel alone in the world.</td>
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<tr>
<td>I feel generally in control of things in my life.</td>
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<tr>
<td>I wish I were someone else.</td>
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<tr>
<td>I feel inadequate.</td>
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<tr>
<td>I feel secure about myself.</td>
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<tr>
<td>I have a low opinion about myself.</td>
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<tr>
<td>I feel that I can achieve my standards.</td>
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<tr>
<td>I feel that I am a worthwhile person.</td>
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<tr>
<td>I feel empty inside (emotionally).</td>
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</tr>
</tbody>
</table>

Age: ________
Sex: ________
Weight: ________
Height: ________

Have you been diagnosed with an eating disorder?  Yes  No
If yes, please specify: __________________________________________