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FAMILY RELATIONSHIPS, INTERPERSONAL RELATIONS, COPING
STRATEGIES, AND STRESSFUL BEHAVIORAL RESPONSE PATTERNS
OF ANOREXIA NERVOSA AND BULIMIA NERVOSA INDIVIDUALS

by

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ABSTRACT

A booklet was completed by 7 anorexia nervosa patients, 12 bulimia nervosa patients, and 19 non-clinical individuals. The research instrument was designed to measure transgenerational family processes, interpersonal relations orientations, coping strategies, and stressful behavioral response patterns of anorexics and bulimics. Separate multivariate analysis of variance procedures were performed on the aforementioned variables to determine significant differences among the groups. The findings indicated that significant differences existed among the groups in regards to transgenerational family processes ($F = .000$), interpersonal relations orientations ($F = .014$), and coping strategies ($F = .003$).

DEDICATION

To my wife

Who has persevered through endless
hours of study

and

To my parents
who have been loving and supportive

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My dissertation committee, composed of _____ and _____ for their wisdom, guidance, and direction throughout this project.

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CHAPTER I

INTRODUCTION

The literature indicates that there are a variety of eating disorders marked by numerous similarities and differences (Schlesier-Stropp, 1984; Squire, 1983; Vandereycken & Meerman, 1984). Anorexia nervosa and bulimia nervosa are two such eating disorders, which have no single theoretical explanation. The majority of researchers suggest that these two disorders are developed and perpetuated by a variety of etiological factors including sociocultural factors, biological/physiological factors, familial factors, and psychological factors (Andersen, 1986; Johnson & Pure, 1986; Thompson, Berg, & Shatford, 1986).

Rationale for the Study

Research studies designed to assist therapists, who work with eating disorders in the treatment environment, need to be conducted. The treatment of eating disorders usually involves multidisciplinary teams who take into account some etiological factors that contribute to the development and maintenance of the disorders, such as sociocultural factors, biological/physiological factors, familial factors, and psychological factors. Therapists in the treatment environment are interested in the further study of the aforementioned factors to determine variables that initiate and sustain the eating disorders. In addition, therapists

need to know the similarities and differences among the various eating disorders groups on the variables. This type of information will contribute to the development of treatment goals and therapeutic approaches to be used in treating eating disorders.

The purpose of this study was to examine several of the etiological factors to determine those variables that have been suggested to contribute to the development of the eating disorders, but which have not been ratified empirically. Concurrently, the researcher examined the differences among anorexics, bulimics, and non-clinical individuals in regards to these variables.

Many factors have been suggested to contribute to the development and maintenance of the eating disorders. Sociocultural factors have been found to contribute to the development of the eating disorders as researchers have studied such variables as identity development, role expectations, and body image. It has been found that these variables contribute to the initiation and development of eating disorders. In the same vein, the study of biological/physiological factors and their relationships to the eating disorders has revealed that such variables as genetic predisposition, affective disorders, and hyperactivity of the hypothalamic-pituitary-thyroid axis might contribute to the development of the eating disorders. Furthermore, the study of family factors and their

relationship to the eating disorders has indicated that variables such as dysfunctional family structures and poor conflict resolution skills contribute to the maintenance of the eating disorders. However, no study had empirically examined variables relating to transgenerational family processes to determine the differences among anorexics, bulimics, and non-clinical individuals. Likewise, no study had been conducted to determine those variables that might contribute to the breakdown in interpersonal relations, which is a common observation in clinical reports. Finally, the study of psychological factors and their contribution to the eating disorders has revealed that such variables as dysfunctional eating attitudes and behaviors, neuropsychological deficits, and particular personality profiles, are seen in eating disordered clientele. However, no study had examined the variables relating to stress to determine if differences exist among anorexics, bulimics, and non-clinical individuals in terms of coping strategies. Furthermore, no study had been developed to determine the stressful behavioral response patterns of these groups.

Purpose of the Study

The purpose of this study was to examine trans-generational family processes, interpersonal relations orientations, coping strategies, and stressful behavioral response patterns of anorexics, bulimics, and non-clinical individuals.

Research Questions

The following research questions were the focal points of this study:

1. Is there a difference among anorexics, bulimics, and non-clinical individuals in terms of trans-generational family processes?
2. Is there a difference among anorexics, bulimics, and non-clinical individuals in terms of interpersonal relations orientations?
3. Is there a difference among anorexics, bulimics, and non-clinical individuals in terms of coping strategies?
4. Is there a difference among anorexics, bulimics, and non-clinical individuals in terms of behavioral response patterns in stressful situations?

CHAPTER II

REVIEW OF LITERATURE

Anorexia nervosa and bulimia nervosa are complex eating disorders which must be analyzed from a multi-dimensional perspective (Brownell & Foreyt, 1986; Garner & Garfinkel, 1985). In addition, researchers are beginning to perceive anorexia nervosa and bulimia nervosa as two representatives of a wide spectrum of eating disorders ranging on a continuum from normative eating to atypical eating disorders (Squire, 1983).

In this section, a brief overview of the literature pertaining to the etiological factors that contribute to the development and maintenance of the eating disorders will be presented. The etiological factors that contribute to the development and maintenance of the eating disorders are sociocultural factors, biological/physiological factors, familial factors, and psychological factors. In addition, a review of the spectrum concept as it applies to the eating disorders will also be provided. At the conclusion of each section of the literature review pertaining to each of the etiological factors, appropriate research questions will be stated.

Family Factors

One of the areas of concern involves the familial environment and its contribution to the eating disorders. Anorexic families have typically been described as enmeshed, overprotective, rigid, over-involved, and lacking in conflict negotiation skills (Minuchin, Rosman, & Baker, 1978). Palazzoli (1978) suggested that families of anorexics had a collective sense of the family in which individuality was thwarted and covert coalitions were common.

Strobes, Salkin, Burrough, and Morrell (1981) observed that families of bulimic-anorexics were more negative and conflictual, and experienced greater dissatisfaction with family relations than did restrictors. Ordmann and Kirschenbaum (1986) utilized the Family Adaptability and Cohesion Evaluation Scale (FACES-III) to assess the nature of bulimic families and found that they exhibited less cohesion and expressiveness, more conflict, and less active recreational orientations in their families than did controls. Humphrey (1986) found that bulimic-anorexic families were less involved/supportive, more isolated, conflictual, understructured, and detached than were normals. Garner, Garfinkel and O'Shaughnessy (1985) used the Family Assessment Measure (FAM) in the evaluation of anorexic and bulimic families and reported that these families

reported patterns indicative of self regulation difficulties. Root, Fallon, and Friedrich (1986) suggest that eating disordered patients tend to come from either perfect families, overprotective families, or chaotic families. These family environments tend to produce children who feel disorganized, disconnected, insecure, and anxious (Johnson & Connors, 1987).

Recently, Roberto (1986) suggested the importance of considering transgenerational family processes in the treatment of bulimia based on her clinical observations. Root et.al. (1986) have suggested that family of origin issues play a great part in the formulation of an eating disorder. Their clinical observations have indicated that these families are marked by triangulation, an undifferentiated family ego mass, and family projection which extends at least three generations. Also, Lacey, Phil, Coker, and Britchnell (1986) have noted that poor relationships with significant others tends to maintain eating disorders.

It is apparent that empirical studies needed to be conducted to investigate the relationship between transgenerational family processes, interpersonal relationship orientations and the eating disorders. Therefore, the following research questions were developed as part of this study:

1. Is there a difference among anorexics and bulimics in terms of transgenerational family processes?

2. Is there a difference among anorexics and bulimics in terms of interpersonal relations orientations?

Psychological Factors

Numerous authors have noted psychological factors (such as dysfunctional eating attitudes and behaviors, neuropsychological deficits, personality profiles, and stress management failures) that contribute to the development of the eating disorders. The following is a brief overview of the dysfunctional eating attitudes and behaviors, neuropsychological deficits, personality profiles, and psychosexual concerns related to the eating disorders. The focus will be on the stress literature and areas of empirical verification pertinent to this study.

Fairburn, Cooper, and Cooper (1986) provided an overview of the eating attitudes and behaviors that characterize individuals with eating disorders. They noted that anorexics and bulimics tend to be depressive, exhibit mood disturbances, have a fear of fatness, and reveal dysfunctional reasoning styles. Johnson and Connors (1987) have summarized some of the cognitive distortions exemplified by eating disorders clients. These include faulty attributions, all-or-none thinking, personalization or self

reference, magnification, filtering, overgeneralization, and general cognitive deficiencies.

Touyz, Beaumont, and Johnstone (1986) reviewed the neuropsychological findings pertinent to the eating disorders and questioned the results of studies suggesting anorexics and bulimics have cognitive deficiencies. These authors investigated the cognitive abilities of anorexia nervosa and bulimia nervosa through the usage of neuropsychological tests such as the Wechsler Adult Intelligence Scale-Revised, the Wechsler Intelligence Scale for Children, the Benton Visual Retention Test, the Trail Making Test, and the Wide Range Achievement Test. Their findings indicated that no cerebral dysfunction was found in the two groups and lead them to question numerous previous studies where neuropsychological deficits were found and biological mechanisms were implicated in the pathogenesis of the disorders. Likewise, theories on the development of anorexia nervosa suggest that these individuals tend to reason in a childlike manner similar to prepubertal children. Kowalski (1986) assigned formal reasoning tasks to anorexics, normal developing adolescents, and prepubertal children. Her results contradicted the aforementioned theory as anorexics were more similar to normally developing adolescents than to prepubertal children. It is important to note that self-control deficits have been noted in studies of bulimics.

Heilbrun & Bloomfield (1986) investigated the self control of anorexics and bulimics through the usage of prescribed tasks designed to measure impulse control and internal scanning. It was found that bulimics showed poorer impulse control and impaired internal scanning on the tasks. Finally, Thompson, Berg, and Shatford (1986) found that anorexics and bulimics frequently reveal cognitive distortions relating to food and weight. They tend to overestimate their body size and magnify situations to delusional proportions.

Personality profiles of eating disordered clients have noted the presence of interoceptive awareness disturbances (Brush, 1978), body dissatisfaction (Garner & Garfinkel, 1982), self esteem problems marked by high self expectations, self criticalness, guilt, high needs for approval from others, external locus of control, low assertiveness, and interpersonal sensitivity (Love, Ollendick, Johnson, and Schlesinger, 1985). Minnesota Multiphasic Personality Inventory (MMPI) profiles of anorexics have indicated withdrawal, depression, anxiety, alienation and agitation, avoidance of close interpersonal relationships, and fear of loss of impulse control. Bulimic profiles indicated irritability, underachievement, alienation, suicidal thoughts, poor impulse control, acting-out behaviors, troubled family relationships, and a vulnerability to addictive behaviors (Norman & Herzog, 1983). Small (1984) reported that eating disordered clients manifest

a wide range of ego deficits on the Rohrschach test. Finally, studies have suggested the existence of borderline personality organization among these clientele (Johnson & Connors, 1987).

Shatford and Evans (1986) examined the stress literature in regards to the eating disorders and concluded that coping skills are important mediators in terms of stress management. They suggested that inadequate coping mechanisms lead to the manifestation of bulimia. In addition, they proposed that further studies of coping mechanisms of bulimic patients needed to be conducted. The present researcher concurred with these suggestions and believed that these studies also needed to include anorexics for comparison purposes. Therefore, this study proposed to examine the coping strategies and the stressful behavioral response patterns of eating disorders clients. This leads to the formulation of the following research questions:

3. Is there a difference among anorexics and bulimics in terms of coping strategies?

4. Is there a difference among anorexics and bulimics in terms of stressful behavioral response patterns?

Sociocultural Factors

The literature indicates that sociocultural factors trend to contribute to the development of eating disorders (White & White, 1986; Worley & Worley, 1985). Clinical reports have suggested that society has been structured such that power, prestige, privileges, and attention are granted to women who maintain a certain standard regarding weight and appearance (Worley & Worley, 1985). Garner, Garfinkel, and Olmsted (1983) note that the cultural emphasis on body shape, contradictory role expectations, and escalating achievement standards contribute to the eating disorders. Likewise, the cultural pressure to maintain a thin body shape has resulted in the increased usage of dieting strategies, such as vomiting, fasting, laxative abuse and diet pills to improve one's perception of his or her body image (Emmett, 1985).

Studies have suggested that eating disordered groups are the first generation of women raised during the formative years of the feminist movement (Johnson & Connors, 1987). These women might have developed the disorders because of a sense of powerlessness, a lack of identity, a feeling of victimization, and/or an inability to maintain the superwoman status demanded by society (Goldner, 1985; Root, Fallon, & Friedrich, 1986).

In the present study, sociocultural factors and

their contributors to the eating disorders were not included in the development of research questions. This was because numerous studies had already examined these variables.

Biological/Physiological Factors

Other contributing factors to the development and maintenance of anorexia nervosa and bulimia nervosa include biological components and physiological concerns. Numerous authors have examined monozygotic and dizygotic twins and suggested that a possible genetic predisposition for the development of anorexia nervosa may exist (Moskovitz, Belar, & Dingus, 1982; Nowlin, 1983). Holland, Hall, Murray, Russell, and Crisp (1984) have proposed a diathesis-stress paradigm in their examination of factors that contribute to the development of eating disorders. This paradigm suggests that there is a genetic predisposition toward the illness (the diathesis) which becomes activated through repeated exposures to adverse environmental and learning events (stress).

Gershon, Hamouit, Schreiber, Dibble, Kaye, Nurnberger, Anderson, and Ebert (1983) have noted that psychiatric disorders with affective disorders in particular, are more frequently found in relatives of anorexics than in those of controls. Johnson and Connors (1987) also suggest that bulimia frequently occurs in families with depressive tendencies of a biological nature. These findings are usually based on

the following: depressive symptoms are frequently found in eating disorders clients, biological tests indicated hyperactivity in the hypothalamic-pituitary-adrenal axis, family studies reveal affective disorders in first degree relatives, and many clients respond well to treatments utilizing amitriptyline and lithium carbonate (Scott, 1986).

Some studies have suggested that there is a relationship between gonadal dysgenesis, in particular Turner's syndrome and the eating disorders (Scott, 1986). Others have documented the presence of anorexia nervosa concurrent with Turner's syndrome (Darby, Garfinkel, Wale, Kirwan, & Brown, 1981). In addition, these disorders tend to produce alterations in hypothalamic-pituitary-thyroid mechanisms, catecholamine metabolism, and endogenous opioid activity (Weiner, 1985).

Literature on biological/physiological variables is included in recognition of their contribution to the body of knowledge pertaining to the eating disorders. However, these variables were not included in the construction of research questions.

Shatford and Evans (1986) examined the stress literature in regards to the eating disorders and concluded that coping skills are important mediators in terms of stress management. They suggested that inadequate coping mechanisms lead to the manifestation of bulimia. In addition, they proposed that further studies of

copying mechanisms of bulimic patients needed to be conducted. The present researcher concurred with these suggestions and believed that these studies also needed to include anorexics for comparison purposes. Therefore, this study proposed to examine the copying strategies and to stressful behavioral response patterns of eating disorders clients. This lead to the formulation of the following research questions:

3. Is there a difference among anorexics and bulimics in terms of coping strategies?

4. Is there a difference among anorexics and bulimics in terms of stressful behavioral response patterns?

Spectrum Concept of the Eating Disorders

Historically, the study of the eating disorders lumped anorexic nervosa and bulimia nervosa under one heading, namely anorexia nervosa (Bemis, 1978). With the advent of the DSM-III diagnostic criteria (APA, 1980), researchers began to distinguish between anorexia nervosa (restricting), anorexia nervosa with the symptom of bulimia, and the syndrome of bulimia (Mitchell & Pyle, 1982). Fairburn and Cooper (1984) have noted that discrepant findings are found in the literature because researchers may have been evaluating different groups.

The key component seems to be the presence or absence of bulimia, as bulimia nervosa patients and anorexics with the symptom of bulimia tend to respond similarly on the psychometric dimensions that have been measured (Garner, Garfinkel, & O'Shaughnessey, 1985; Garner, Olmsted, & Garfinkel, 1985). However, anorexia nervosa patients with the symptom of bulimia differ from restricting anorexics in terms of depressive tendencies, premorbid obesity, impulsivity, sexual activity, and social relations (Vandereycken & Pierloot, 1983).

In light of the fact that similarities and differences tend to exist between anorexia nervosa and bulimia nervosa patients, the researcher attempted to distinguish between these groups on the basis of clinical observations based on the DSM-III R (APA, 1987) criteria (see Appendix A). In addition, the researcher perceived that a non-clinical population should also be utilized for comparison purposes.

CHAPTER III

METHODOLOGY

Sample

The bulimic and anorexic samples were recruited from various eating disorders clinics throughout the Middle Atlantic States. The criteria for inclusion in this study consisted of the following: the subjects were diagnosed as having anorexia nervosa or bulimia nervosa by an expert in the field based on the DSM-III R (APA, 1987) criteria (see Appendix A); the subjects were all females; they were between 18-24 years of age; and they had all been in treatment for at least three sessions. Height and weight were not used as an inclusion criteria because Fairburn and Garner (1985) have noted that the diagnosed disorder is the relevant determinant irrespective of height or weight standards. Likewise, socioeconomic status was not used as a discriminating variable for inclusion in the eating disorders groups. Numerous studies have indicated the prevalence of eating disorders in all socioeconomic classes (Garfinkel and Kaplan, 1986).

The non-clinical sample was recruited from several undergraduate classes in the Family and Child Development Department at the Virginia Polytechnic Institute and State University. The non-clinical subjects were administered the

Eating Attitudes Test (EAT) (Garner, Olmsted, Bohr, & Garfinkel, 1982) as a preliminary measure to ensure that individuals with eating disordered tendencies would be excluded. To be classified as a non-clinical subject, for the purposes of this study, required a score of 5 or below on the 26 item EAT. The non-clinical subjects were females between 18-24 years of age. In addition, these individuals satisfied normal height/weight criteria as established by the 1983 Metropolitan Life Insurance Tables. This was done in order that obese individuals would be eliminated from the study. It was perceived that the combination of the EAT and the height/weight index evaluations would also help to exclude the 2-10% of college women who might have some form of an eating disorder (Pyle, Mitchell, & Eckert, 1983).

Instruments

The Eating Attitudes Test-26 (EAT) (Garner et al., 1982) is an abbreviated version of the 40 item EAT developed by Garner and Garfinkel (1979), (see Appendix B). The 26 item EAT is designed to measure attitudes and behaviors indicative of eating disorders patients. The test has three subscales dealing with dieting behaviors, bulimia and food preoccupation, and oral control. The intercorrelations of the EAT-26 variables suggest that it is highly predictive of the total EAT-40 ($r = .98$). Reliability and validity studies were constructed with female college-aged students, anorexia nervosa patients, and bulimia

patients. The three subscales had alpha reliabilities ranging from .79 to .94. In addition, the EAT-26 displayed acceptable criterion-related validity by significantly predicting group membership. This instrument was used as a screening device for the non-clinical individuals in this study. The cutoff score for classification into an eating disorders group has been traditionally established at twenty. For the purposes of this study, only individuals who scored five or below were included in the non-clinical group. This was done in an attempt to discriminate between groups and insure that no one with an eating disorders tendency was included in the non-clinical group. Finally, the test was not distributed to the anorexics or bulimics because they were already diagnosed by the DSM-III R criteria as having the disorder.

The Hutchins Behavior Inventory (HBI) was developed to measure thinking, feeling, and acting dimensions of behavior (Hutchins & Cole, 1986), (see Appendix B). This study utilized the bipolar scores designated by the instrument in order that behavioral response patterns in a high stress situation and a low stress situation might be analyzed. The reliability coefficients for the HBI-I choice and bipolar scores were found to range from .70 to .86. In addition, content and construct validity measures were relatively high (Wheeler, 1986). For the purposes of this study, the participants were asked to rate themselves twice on the HBI-I

form by placing themselves in a high stress situation and then in a low stress situation of their own choice. This was done to insure that in responding to the HBI-I the situations selected by the subjects were reflective of their individual perspectives of high stress and low stress situations.

The Personal Authority in the Family System

Questionnaire (PAFS) developed by Bray, Williamson, and Malone is designed to measure transgenerational family processes (see Appendix B). Personal Authority in the Family System (PAFS) is conceptualized as a life cycle stage and is operationally defined as a pervasive pattern of abilities to do the following: (1) to order and direct one's own thoughts and opinions; (2) to choose to express or not to express one's thoughts and opinions regardless of social pressures; (3) to make and respect one's personal judgments, to the point of regarding these judgments as justification for action; (4) to take responsibility for the totality of one's experience in life; (5) to initiate or to receive intimacy voluntarily; and (6) to experience and relate to all other persons without exception, including former parents as peers in the experience of being human (Williamson, 1982, p. 311). The PAFS operationalizes aspects of current intergenerational family therapy, such as individuation, fusion, triangulation, intimacy, isolation, personal authority, and intergenerational intimidation (Bowen, 1978; Boszormenyi-Nagy & Ulrich; Williamson, 1982)

into psychometric scales for use in research and clinical practice. This study utilized Version C of the PAFS, which was designed to be used with college aged young people, and was concerned with the following variables:

intergenerational intimacy, intergenerational individuation, personal authority, intergenerational intimidation, intergenerational triangulation, peer intimacy, and peer individuation. The subscales have internal consistency coefficients ranging from .75 to .96. In addition, content, concurrent, and construct validity coefficients are fairly high. As such, transgenerational family processes were evaluated by using the PAFS with the groups under consideration.

The Fundamental Interpersonal Relations Orientation Behavior Questionnaire (FIRO-B) is a 54 item instrument designed to measure three fundamental dimensions of interpersonal relationships: inclusion, control and affection. The instrument is also designed to measure expressed and wanted aspects of each dimension (Schutz, 1958), (see Appendix B). Inclusion is the need to establish and maintain a satisfactory relationship with people with respect to interaction and association. Control is concerned with the need to maintain a satisfactory relationship with people with respect to power. Affection involves the interpersonal need to establish and maintain a satisfactory relation-

ship with others in terms of love. The Expressed aspect of each dimension points to the level of behavior the subject is most comfortable in demonstrating toward others to bring people together (Expressed Inclusion), to get one's way (Expressed Control), and to be close to others (Expressed Affection). The Wanted aspect of each dimension points to the behavior that the subject prefers others to use in their attempts to get together with her (Wanted Inclusion), to get their way (Wanted Control), and to be close with her (Wanted Affection) (Musselwhite & Schlageter, 1982). In studies with college students, the FIRO-B has been found to have internal reliability measure of .93 to .94 on the subscales. In addition, content validity and concurrent validity measures are high. This instrument was used to examine interpersonal relations orientations of the groups under consideration. As such, differences among the groups were assessed in terms of scores on the following variables: expressed inclusion, expressed control, expressed affection, wanted inclusion, wanted control, and wanted affection.

The Young Adult-Coping Orientation for Problem Experiences (YA-COPES) is designed to measure the behaviors young adults find helpful in managing stressful events (Patterson, McCubbin, & Grochowski, 1984). YA-COPES is a slightly revised version of the A-COPES (Adolescent-Coping Orientation for Problem Experiences) which was developed by Patterson and McCubbin in 1981.

YA-COPES and A-COPES were designed to identify the behaviors young people find helpful in managing problems or stressful events. The theoretical assumption is that young people achieve successful adaptation and enhance their well-being through the use of positive coping skills (McCubbin, Needle, & Wilson, 1985). The YA-COPES consists of nine subscales which include the following: family problem solving, ventilation, self reliance and positive appraisal, high activity level, humor, emotional connections, spiritual concerns, low activity level, and avoidance. The reliability subscales range from .51 to .77. In addition, face validity and construct validity have been substantiated with college students. This instrument was used to examine the coping strategies of the groups under consideration.

Collection of Data

The first step in the data collection process was to develop a booklet containing the questionnaires. The booklet was furnished with a title page describing this study as the family stress project. The next page contained a letter to the participants requesting their contribution in this study. Additionally, the booklet contained a consent form satisfactory to those involved in human subjects review. It was followed in sequential pattern by the HBI-high stress situation, the PAFS, the FIRO-B, the HBI-low stress situation, and the YA-COPES.

The booklet that was distributed to the non-clinical group also contained the EAT-26. The purposes for constructing this booklet included the fact that it would enhance the professional appearance of this study, it facilitated the test taking process, and it simplified the coding process. A copy of the booklet is found in Appendix B.

The recruitment of non-clinical members came from two undergraduate Family and Child Development classes at the Virginia Polytechnic Institute and State University. The researcher went to the classes, read the statement contained in Appendix C, distributed the booklets to the class members, and the students completed the booklets during one class period. Upon receiving the finished booklets, the researcher generated the non-clinical sample from those female individuals who satisfied the age requirements, the normal height/weight range ratios, and who scored 5 or below on the EAT-26.

The recruitment of anorexia nervosa and bulimia nervosa patients involved contacting the directors of the clinics with a form letter describing the nature of the study (see Appendix D) and a copy of the instruments to be used. Upon receiving institutional approval at the various clinics to conduct the study, the researcher made appointments with the directors to further discuss the nature of the study and make arrangements for the distribution and

collection of the booklets. The directors of the respective clinics distributed the booklets to those clients who agreed to participate and who had been in treatment for at least three sessions. These individuals had been diagnosed as anorexic or bulimic, were all female, and were between 18-24 years of age. In addition, the director or one of the clinical staff members read the statement contained in Appendix E to each of the subjects. Upon receiving the booklets, the clients completed them at one sitting and returned the completed copies to the directors. The directors mailed the completed copies of the booklets to the researcher in self-addressed stamped envelopes provided by the researcher.

Analysis of Data

The analysis consisted of examining the differences among anorexics, bulimics, and non-clinical individuals in terms of transgenerational family processes, interpersonal relations orientations, coping strategies, and stressful behavioral response patterns. This involved the usage of separate multivariate analysis of variance procedures to be conducted on the PAFS, the FIRO-B, the YA-COPES, and the HBI-high stress situation. If significant differences were found on each of the tests, then univariate F tests were utilized to determine which variables were significantly different. Finally, Tukey post hoc tests were performed to determine which groups differed on the aforementioned variables.

CHAPTER IV

RESEARCH FINDINGS AND DISCUSSION

Description of the Sample

The anorexia nervosa patients and bulimia nervosa patients were recruited from the following eating disorders clinics: Mercy Hospital in Baltimore, Maryland; Georgetown University Medical Center in Washington, D.C.; Roundhouse Square Psychiatric Center in Alexandria, Virginia; and Duke University Medical Center in Durham, North Carolina. These patients were all diagnosed by a professional in the field as having either anorexia nervosa or bulimia nervosa based on the DSM-III R (APA, 1987) criteria. They were all females between 18-24 years of age and had been in treatment for at least three sessions. The all female non-clinical sample was obtained from two undergraduate classes in the Family and Child Development Department at the Virginia Polytechnic Institute and State University. The subjects were between 18-24 years of age; they were within parameters of the height/weight index of the 1983 Metropolitan Life Insurance Tables; and scored five or below on the Eating Attitudes Test.

A total of 95 individuals were contacted and recruited to participate in this study. Ten anorexics and sixteen bulimics were recruited from the eating

disorders clinics. They were furnished with an explanatory letter delineating the nature of the study and they received a questionnaire to be completed if they consented to participate in the study (Appendix B). In addition, sixty-nine non-clinical individuals from undergraduate classes in the Family and Child Development Department at the Virginia Polytechnic Institute and State University were recruited to participate in the study. These individuals received the same materials as the eating disorders groups, with the addition of the Eating Attitudes Test (Appendix B).

Of the ten anorexia nervosa patients who were contacted to participate in the study, 7 (70%) responded by completing and returning their questionnaires. The mean age of this group was 20.14 years, their mean height was 64.35 inches, and their mean weight was 100.43 pounds.

Sixteen questionnaires were distributed to bulimia nervosa patients who met the criteria for inclusion in this study and 12 (75%) responded by completing and returning their questionnaires. The mean age of this group was 21.5 years, their mean height was 65.54 inches, and their mean weight was 127.16 pounds.

Sixty-nine questionnaires were distributed to non-clinical individuals in the undergraduate Family and Child Development classes at Virginia Tech and 19 met the criteria for inclusion in this study. The nineteen who

comprised the non-clinical group had a mean age of 21 years, a mean height of 65.52 inches, and a mean weight of 129.73 pounds.

Plan for the Analyses

In this study the researcher was attempting to determine if there were significant differences among anorexia nervosa patients, bulimia nervosa patients, and non-clinical individuals in terms of transgenerational family processes, interpersonal relations orientations, coping strategies, and stressful behavioral response patterns. Each one of the etiological factors was assessed by an individual test. The PAFS was used to study transgenerational family processes, the FIRO-B was used to investigate interpersonal relations orientations, the YA-COPES was employed to assess coping strategies, and the HBI was designed to measure stressful behavioral response patterns.

For each individual research question, the researcher used multivariate analysis of variance (MANOVA) procedures to determine if significant differences existed between groups on the respective sets of dependent measures. For each of the variables under consideration, namely transgenerational family processes, interpersonal relations orientations, coping strategies, and stressful behavioral response patterns, the Wilks lambda statistic was used to indicate a significant MANOVA. In this study, the Wilks

lambda statistic is reported on the appropriate tables pertaining to the variables under consideration.

In addition, univariate analysis of variance tests (ANOVA) was used to determine the significant variables that differentiated between the groups. Following a significant MANOVA with an ANOVA on each of the variables has been recommended as an appropriate procedure for interpreting group differences (Bray & Maxwell, 1985). In this study, the univariate anovas are reported on the appropriate tables pertaining to the variables under consideration.

Finally, Tukey post hoc comparison procedures were conducted to determine which groups differed on the aforementioned variables.

A table of means and standard deviations for the three groups on the variables under consideration has been furnished in Tables 1 through 4. The results of the study will be reported by referring to each of the research questions on the subsequent pages.

1. Is there a difference among anorexics, bulimics, and non-clinical individuals in terms of transgenerational family processes?

This question was designed to determine if there was a significant difference among anorexia nervosa patients, bulimia nervosa patients, and non-clinical individuals in terms of transgenerational family processes. The Wilks lambda test of significance indicated that the MANOVA

Table 1

Means and standard deviations for PAFS transgenerational family variables by anorexia nervosa, bulimia nervosa, and non-clinical groups.

Measure	Group					
	AN		BN		NC	
	M	SD	M	SD	M	SD
II	74.71	14.86	78.16	12.70	96.89	11.12
IN	22.71	5.12	20.83	4.66	32.63	4.81
PA	36.00	6.13	35.41	8.31	45.42	6.56
IT	26.71	8.51	24.25	9.86	34.57	3.54
IR	22.00	4.93	22.16	7.18	30.89	3.81
PI	34.85	10.93	42.16	6.50	47.42	7.19
PN	26.28	8.13	25.00	6.68	30.36	5.77

Note. II = Intergenerational Intimacy
 IN = Intergenerational Individuation
 PA = Personal Authority
 IT = Intergenerational Intimidation
 IR = Intergenerational Triangulation
 PI = Peer Intimacy
 PN = Peer Individuation

Table 2

Means and standard deviations for FIRO-B interpersonal relations variables by anorexia nervosa, bulimia nervosa, and non-clinical groups.

Measure	Group					
	AN		BN		NC	
	M	SD	M	SD	M	SD
EI	5.14	1.86	3.91	2.31	4.68	1.37
EC	2.00	2.23	2.25	2.95	1.52	2.34
EA	3.85	2.47	4.16	3.04	5.00	2.78
WI	6.85	2.26	5.41	3.45	4.21	3.04
WC	6.14	2.85	5.25	3.57	2.52	1.77
WA	7.14	1.57	5.83	3.27	6.05	2.12

Note. EI = Expressed Inclusion
 EC = Expressed Control
 EA = Expressed Affection
 WI = Wanted Inclusion
 WC = Wanted Control
 WA = Wanted Affection

Table 3

Means and standard deviations for YA-COPES coping strategy variables by anorexia nervosa, bulimia nervosa, and non-clinical groups.

Measure	Group					
	AN		BN		NC	
	M	SD	M	SD	M	SD
FP	16.42	4.99	16.00	3.54	20.10	3.66
VN	25.57	2.22	25.66	2.96	26.94	1.74
SR	14.14	1.86	15.66	4.61	17.26	1.88
HL	18.00	4.35	20.00	4.22	16.84	2.67
HM	8.00	2.58	9.00	3.33	9.10	1.62
EM	16.85	2.47	19.41	4.60	19.89	3.41
SP	13.28	4.07	11.83	3.66	9.94	2.97
LL	20.57	3.73	23.25	3.76	19.84	2.87
AV	13.57	2.29	11.91	3.31	12.89	2.96

Note. FP = Family Problem Solving
 VN = Ventilation
 SR = Self Reliance and Positive Appraisal
 HL = High Activity Level
 HM = Humor
 EM = Emotional Connections
 SP = Spiritual
 LL = Low Activity Level
 AV = Avoidance

Table 4

Means and standard deviations for HBI-high stress variables by anorexia nervosa, bulimia nervosa, and non-clinical groups.

Measure	Group					
	AN		BN		NC	
	M	SD	M	SD	M	SD
TASN	20.71	9.53	24.08	16.61	17.73	12.17
FTSN	18.42	13.47	13.83	11.36	18.42	13.71
AFSN	38.00	15.75	44.41	18.65	39.26	22.57

Note. TASN = Thinking-Acting High Stress Natural Bipolar
 FTSN = Feeling-Thinking High Stress Natural Bipolar
 AFSN = Acting-Feeling High Stress Natural Bipolar

Table 5

PAFS: Multivariate Test of Significance

TEST NAME	VALUE	APP. F	HYP. DF	ERROR DF	SIG. F
Wilks	.2413	4.290	14.00	58.00	.000

PAFS: Univariate F-tests with (2,35) D.F.

VAR.	HSS	ESS	HMS	EMS	F	SIG. F
II	3852.694	5326.884	1926.347	152.196	12.656	.000
IN	1187.246	813.516	593.623	23.243	25.539	.000
PA	911.925	1761.548	455.962	50.329	9.059	.001
IT	870.031	1732.310	435.015	49.494	8.789	.001
IR	734.043	975.456	367.021	27.870	13.168	.000
PI	836.239	2115.155	418.119	60.433	6.918	.003
PN	234.913	1489.849	117.456	42.567	2.759	.077

Note. II = Intergenerational Intimacy
 IN = Intergenerational Individuation
 PA = Personal Authority
 IT = Intergenerational Intimidation
 IR = Intergenerational Triangulation
 PI = Peer Intimacy
 PN = Peer Individuation

revealed significant differences between the groups on the variables relating to transgenerational family processes (see Table 5). Univariate analysis of variance tests noted that the following variables differentiated between groups: intergenerational intimacy; intergenerational individuation; personal authority; intergenerational intimidation; intergenerational triangulation; peer intimacy; and peer individuation (see Table 5).

Tukey post hoc comparison procedures were conducted on the individual variables to determine which groups differed on the aforementioned variables.

The univariate ANOVA indicated that there was a significant difference among the groups in terms of intergenerational intimacy (see Table 5). Intergenerational Intimacy means knowing the individual person and the private meanings of the inner life experiences of each parent. It includes reconnection and belongingness to the family of origin, while simultaneously acting from a differentiated position within the family of origin (Bray, Williamson, & Malone, 1984). In this case, the Tukey post hoc comparisons indicate the anorexics ($M = 74.714$) and bulimics ($M = 78.167$) differed significantly from the non-clinicals ($M = 96.895$) on intergenerational intimacy. These findings suggest that non-clinical individuals are able to maintain voluntary closeness with distinct boundaries to the self in their relationships with their family of origin, while anorexics

and bulimics do not exhibit this type of behavior pattern.

The Univariate ANOVA revealed that that there was a significant difference among the groups in terms of intergenerational individuation (see Table 5). Intergenerational individuation refers to the process by which a person is able to become differentiated from her relational contexts, which in this case is the family of origin, and nuclear family (Bowen, 1978). Tukey post hoc comparison tests showed that the anorexics ($M = 22.714$) and bulimics ($M = 20.833$) differ significantly from non-clinical individuals ($M = 32.632$). The findings of this study indicate that non-clinical individuals are able to maintain this differentiated stance while anorexics and bulimics are not.

In addition, the univariate ANOVA showed that a difference existed among the groups in terms of personal authority (see Table 5). Personal authority has been defined as the capacity to exercise control over one's individual destiny as a characteristic pattern of behavior of an integrated and differentiated self. On the PAFS, higher scores on the personal authority scale indicates that an individual possesses this attribute to a greater degree than one who scores low. Thus, anorexics ($M = 36.00$) and bulimics ($M = 35.417$) significantly differ from non-clinical individuals ($M = 45.421$) on the personal authority scale. This finding suggests that non-clinicals

exhibit more personal authority than do anorexics or bulimics.

In the same vein, subjects differed in terms of intergenerational intimidation as noted by the univariate ANOVA (see Table 5). Intergenerational intimidation refers to the degree of personal intimidation experienced by the individual in relation to her parents. The items are scaled so that larger scores indicate less intimidation. The Tukey post hoc comparisons reveal that anorexics ($M = 26.714$) and bulimics ($M = 24.250$) experience significantly more intimidation than do non-clinical individuals ($M = 34.579$). In this case, non-clinical individuals experience less intergenerational intimidation in their families of origin than do anorexics and bulimics.

Likewise, the groups differed in terms of intergenerational triangulation as evidenced by the significant univariate ANOVA (see Table 5). Intergenerational triangulation measures the degree to which an individual is placed in a disadvantageous position between her parents (Bray, Williamson, & Malone, 1984). This situation results in the person being pulled between two others and is extremely stressful. The items on the PAFS are scaled such that a high score reveals less triangulation. The Tukey post hoc tests indicate that anorexics ($M = 22.00$) and bulimics ($M = 22.167$) significantly differ from non-clinicals

($M = 30.895$) in terms of intergenerational triangulation. This indicates that non-clinical individuals experience less triangulation than do anorexics and bulimics.

Also, this study concluded that there was a significant difference among the groups in terms of peer intimacy as evidenced by the univariate ANOVA (see Table 5). Peer intimacy is defined as the capacity to maintain voluntary closeness with distinct boundaries in one's relationships with peers. The college-aged young person is beginning to experience members of her family of origin and significant others in her life on a peer level, such that she engages in trust, love-fondness, self-disclosure, and commitment in these relationships (Bray, Williamson, and Malone, 1984). The individual who lacks peer intimacy is unable to experience the voluntary closeness of this type of relationship. The Tukey post hoc comparison test shows that bulimics ($M = 42.167$) and non-clinicals ($M = 47.421$) experience more peer intimacy than do anorexics ($M = 34.857$). This seems to show that anorexics differed significantly from bulimics and non-clinicals in terms of peer intimacy. The scores are scaled such that higher scores indicate more intimacy.

Finally, the groups revealed significant differences pertaining to peer individuation as seen by the univariate ANOVA (see Table 5). Peer individuation refers to the ability to maintain a differentiated self

in one's relational contexts (Bray, Williamson, & Malone, 1984). The scale is constructed such that a higher score is indicative of greater individuation. The Tukey post hoc comparisons were unable to find significant differences among the anorexics ($M = 26.28$), bulimics ($M = 25.00$), and non-clinical individuals ($M = 30.368$). Keppel (1982) has suggested that in situations of this nature it is best to suspend judgment. He states, "Suspending judgment calls attention to a potential true difference and avoids creating the obscurity often associated with a difference that is labeled non-significant" (p. 163). Thus, in this case there is a significant multivariate ANOVA and a significant univariate ANOVA. However, the Tukey post hoc comparison procedure was unable to find significant differences among the groups. Therefore, judgment has been suspended in this case.

The findings indicate that there are significant differences among eating disorders clientele and non-clinical individuals in terms of transgenerational family processes. Anorexics and bulimics tend to experience difficulty in developing intimate relations with members of their family of origin, they lack autonomy, and feel intimidated by their significant others.

These findings concur with the suggestions offered by Root, Fallon, and Friedrich (1986). They have suggested that bulimics come from homes where the dis-

order is embedded within multigenerational roots. These families are characterized by an undifferentiated family ego mass, family projection patterns that exacerbate the problem, and a pattern of secretiveness that is quite operative. Furthermore, these findings support the clinical observations of Roberto (1986). She suggests that eating disorders families reject the concepts of differentiation, autonomy, and personal authority in order that the family "legacy" might be carried on in a successful fashion.

These data also indicate that eating disorders families experience difficulties in negotiating the normal life transitions (Pittman, 1987). Carter and McGoldrick (1980) discuss the life-cycle of the family as progressing along a horizontal path through a series of essential transitions. One of the vertical stressors that inhibits growth and development involves the presence of multigenerational stressors. It appears that the young women in this study are experiencing difficulty in differentiating from their families of origin and establishing their own self-hood. The literature documents the difficulty anorexics have traditionally experienced in negotiating the adolescent stage of development (Minuchin, Rosman, & Baker, 1978; Selvini-Palazzoli, 1978). Likewise, it appears that

these individuals are also experiencing difficulty in negotiating the launching out stage of development (Johnson & Connors, 1987; Root, Fallon, & Friedrich, 1986).

Furthermore, the present findings suggest that there are significant parallels between clinical observations and the existing results. Clinicians have repeatedly noted the presence of such issues as triangulation (Root, Fallon, & Friedrich, 1986), dependency and insecurity (Goldstein, 1981), detachment among family members (Humphrey, 1987), the role of familial interaction patterns in thwarting peer development (Sargent, Liebman, & Silver, 1985), and the nature of the kin network in suppressing development (Schwartz, Barrett, & Saba, 1985). All of these concepts find support from this study as it has been found that eating disorders clients are often triangulated between spouses, they lack autonomy and differentiation, they experience poor intimate relations, they lack personal authority, and they are unable to initiate and maintain adequate peer relationships.

Finally, an interesting point of consideration involves the nature of the relationship between anorexia nervosa patients and bulimia nervosa patients. It was found that anorexics and bulimics differed in terms of peer intimacy. This would coincide with the findings of Strober (1981) in which bulimics were

characterized by more conflictual interactions in their families, while anorexics were more committed to maintaining the family heritage. The fact that bulimics do engage in conflictual relations indicates that they express autonomy on occasion and would be capable of engaging in peer relations. However, the tendency to become either involved in overt conflict or complete subservience could account for the nature of their disturbed peer relations (Johnson & Connors, 1987). On the other hand, it appears that anorexics would have difficulty in dealing with peers on an intimate basis because they are so committed to the family legacy. This type of commitment is marked by a family that does not allow for voluntary closeness with distinct boundaries.

2. Is there a difference among anorexics, bulimics, and non-clinical individuals in terms of interpersonal relations orientations? The second research question was designed to determine if there was a significant difference among anorexia nervosa patients, bulimia nervosa patients and non-clinical individuals in terms of interpersonal relations orientations. The Wilks lambda test of significance noted that the MANOVA revealed significant difference between the groups on the variables relating to interpersonal relations orientations (see Table 6). The univariate analysis of variance test revealed that wanted control was the variable that discriminated between the groups (see Table 6).

Table 6

FIRO-B: Multivariate Test of Significance

TEST NAME	VALUE	APP. F	HYP. F	ERROR DF	SIG. F
Wilks	.4591	2.3789	12.00	60.00	.014

FIRO-B: Univariate F-Tests with (2,35) D.F.

VAR.	HSS	ESS	HMS	EMS	F	SIG. F
EI	7.594	113.879	3.797	3.253	1.167	.323
EC	4.065	224.986	2.032	6.428	.316	.731
EA	8.949	278.523	4.474	7.957	.562	.575
WI	37.831	328.931	18.915	9.398	2.012	.149
WC	92.050	245.843	46.025	7.024	6.552	.004
WA	8.239	213.471	4.119	6.099	.675	.515

Note. EI = Expressed Inclusion
 EC = Expressed Control
 EA = Expressed Affection
 WI = Wanted Inclusion
 WC = Wanted Control
 WA = Wanted Affection

The Tukey post hoc comparison tests indicated that anorexics ($M = 6.143$) and bulimics ($M = 5.250$) differed significantly from non-clinicals ($M = 2.526$) in terms of wanted control.

The interpersonal need for control is defined by Schutz (1958) as the need to establish and maintain a satisfactory relation with people with respect to influence and power. The wanted aspect of the behavior is marked by a willingness to give up personal responsibility for one's actions and to be influenced by others. The FIRO-B is constructed such that higher scores indicate a desire for a certain behavioral pattern. As can be seen from the Tukey post hoc comparison test, anorexics and bulimics desire wanted control in their personal relationships.

It could be expected that anorexics and bulimics would desire others to exhibit control when engaging in interpersonal relationships. This is because of their paralyzing sense of ineffectiveness in which they reveal high self expectations, self criticalness and guilt, high needs for approval from others external focus of control, low assertiveness, and interpersonal sensitivity (Connors, Johnson, & Stuckey, 1984; Katzman & Wolchick, 1984). Likewise, a desire for wanted control could be expected when one recognizes the tendency of these patients to exhibit borderline personality disturbances. Johnson and Connors (1987) have suggested

that anorexics and bulimics have significantly impaired ego resources. In an effort to compensate for their impoverished ego resources, they frantically seek relationships in which they are highly dependent on the other for need gratification or self regulation. Finally, this type of response is congruent with typical responses indicated by individuals who express maturity fears such as those exhibited by anorexics and bulimics (Crisp, 1980). Therefore, the desire for wanted control in interpersonal relationships parallels the clinical reports pertaining to expected behaviors of anorexics and bulimics.

3. Is there a difference among anorexics, bulimics, and non-clinical individuals in terms of coping styles?

The third research question was designed to determine if there was a significant difference among anorexia nervosa patients, bulimia nervosa patients, and non-clinical individuals in terms of coping strategies. The Wilks lambda test of significance indicated that the MANOVA revealed significant differences on the variables relating to coping strategies (see Table 7).

Univariate analyses of variance tests indicated that the following variables discriminated between groups: family problem solving; self reliance and positive appraisal; high activity level; spiritual; and low activity level. Tukey post hoc comparison tests were conducted to determine which groups differed significantly on

Table 7

YA-COPES: Multivariate Test of Significance

TEST NAME	VALUE	APP. F	HYP. F	ERROR DF	SIG. F
Wilks	.2835	2.6337	18.00	54.00	.003

YA-COPES: Univariate F-tests with (2,35) D.F.

VAR.	HSS	ESS	HMS	EMS	F	SIG. F
FP	148.838	529.503	73.419	15.128	4.919	.013
VN	16.487	181.328	8.243	5.180	1.591	.218
SR	54.502	319.208	27.251	9.120	2.988	.063
HL	73.368	438.526	36.684	12.529	2.927	.067
HM	6.552	209.789	3.276	5.993	.546	.584
EM	48.147	479.563	24.073	13.701	1.756	.187
SP	65.010	406.042	32.505	11.601	2.801	.074
LL	87.404	388.490	43.702	11.099	3.937	.029
AV	13.395	310.420	6.697	8.869	.755	.477

Note. FP = Family Problem Solving
 VN = Ventilation
 SR = Self Reliance and Positive Appraisal
 HL = High Activity Level
 HM = Humor
 EM = Emotional Connections
 SP = Spiritual
 LL = Low Activity Level
 AV = Avoidance

the aforementioned variables. The univariate ANOVA established that there was a significant difference among the groups in terms of family problem solving (see Table 7). Family problem solving is concerned with the ability to discuss personal stressors with members of the immediate family as a means of relieving tension (Patterson, McCubbin, & Grochowski, 1984). The scores are scaled such that a higher score indicates the ability to engage in family problem solving. In this study, the Tukey post hoc comparison procedures suggested that non-clinicals ($M = 20.105$) exhibited an ability to engage in family problem solving to a greater degree than did anorexics ($M = 16.429$) and bulimics ($M = 16.00$). Therefore, there was a significant difference between the two eating disorders groups and non-clinicals in terms of family problem solving.

Furthermore, an examination of the univariate ANOVA measuring the relationship among the groups on the self reliance and positive appraisal variable noted a significant difference (see Table 7). Self reliance and positive appraisal involves reframing difficult situations in a positive light in an attempt to resolve stress (Patterson, McCubbin, & Grochowski, 1984). The Tukey post hoc comparison tests revealed that there is a significant difference between anorexics ($M = 14.143$) and non-clinicals ($M = 17.263$) in regards to self reliance and positive appraisal. It appears that non-clinicals are better able to reframe situations in a

positive light than are anorexics.

A significant difference existed among the groups in regards to the high activity level variable as marked by the univariate ANOVA (see Table 7). High Activity Level activities are designed to be utilized as coping strategies in regards to stress management. These activities include physical endeavors and interpersonal tasks which are capable of sublimating tension (Patterson, McCubbin, & Grochowski, 1984). In this study, the Tukey post hoc comparison test showed that bulimics ($M = 20.00$) and non-clinicals ($M = 16.842$) are significantly different in terms of these coping strategies. It is evident that bulimics tend to engage in high activity level means of relieving stress more than do non-clinicals.

The spiritual dimension was also found to be a discriminating variable among the groups. The univariate ANOVA suggested that a significant difference existed among the groups on this variable (see Table 7). Spiritual means of alleviating stress involve communicating with the supernatural, discussing one's problems with a minister, going to church, or obtaining professional counseling (Patterson, McCubbin, & Grochowski, 1984). The Tukey post hoc comparison procedure noted a significant difference existed between anorexics ($M = 13.286$) and non-clinicals ($M = 9.947$) in terms of spiritual attempts to alleviate stress. Anorexics tended to

engage in these types of activities more often than non-clinicals as evidenced by their higher mean scores on this variable comparison.

Finally, low level activities were found to be a discriminating variable among the groups as evidenced by the univariate ANOVA (see Table 7). Low level activities involve behaviors which provide avenues of escape from the present stressors (Patterson, McCubbin, & Grochowski, 1984). There was a significant difference between bulimics ($M = 23.250$) and non-clinicals ($M = 19.842$) in terms of this behavior as seen from the Tukey post hoc comparison of the groups. In this study, bulimics tended to exercise this means of alleviating stress more often than the non-clinicals.

This study indicates that anorexics and bulimics lack familial support systems necessary to buffer life's stresses. The literature suggests that these individuals live in a family environment which has been characterized as disengaged, chaotic, highly conflicted, neglectful, devoid of conflict negotiation skills, and nonsupportive (Humphrey, 1986; Johnson & Connors, 1987). Therefore, it is highly likely that family problem solving would not be in the repertoire of stress management techniques utilized by anorexics and bulimics.

In addition, the majority of strategies for dealing with stress in this study were behavioral in nature. However, the

self reliance and positive appraisal strategy involves a cognitive component. It is interesting to note that significant differences existed between non-clinical individuals and both eating disorders groups on this variable. Billings and Moos (1981) have reported that individuals report three methods of coping. These include active-cognitive coping, which involves attempts to manage one's appraisal of the stressfulness of the event; active-behavioral coping, which refers to overt behavioral attempts to deal directly with the problems and its effects; and avoidance coping, which involves attempts to avoid actively confronting the problem. It appears, in this case, that both anorexics and bulimics fail to utilize active-cognitive coping strategies when dealing with stressful situations. This is supported by the other significant variables found in this study. It was found that bulimics differed from non-clinicals in terms of high activity level and low activity level strategies for stress management. The researcher would suggest that these are avoidance coping strategies in which the individuals attempt to actively avoid confronting the problem. Furthermore, anorexics were found to significantly differ from non-clinicals on the spiritual dimension. This coping strategy could be classified as an active behavioral coping strategy. Therefore, it would appear that one of the findings of this study was

that efforts must be made to assist eating disorders groups to develop cognitive strategies for handling the stresses of life. Johnson and Love (1985) have noted that the attitudes of eating disorders groups have a profound affect on their daily activities and relationships. Thus, developing active-cognitive coping strategies is needed to assist these clients in handling the stresses they frequently encounter.

4. Is there a significant difference among anorexics, bulimics, and non-clinical individuals in terms of stressful behavioral response patterns? The fourth research question was designed to determine if there was a significant difference among anorexia nervosa patients, bulimia nervosa patients, and non-clinical individuals in terms of stressful behavioral response patterns. The Wilks lambda indicated that there was not a significant difference among the groups on the MANOVA dealing with the high stress situation (see Table 8).

In light of the fact that significant differences were not found among the groups, it is necessary that an explanation be offered. The researcher was attempting to measure the responses of anorexics, bulimics, and non-clinicals on the natural bipolar scores of the Hutchins Behavior Inventory. This study was interested in looking at the differences among the aforementioned groups on these natural bipolar scores which appear as follows: thinking-acting, acting-feeling, and feeling-acting. In this

Table 8

HBI-High Stress: Multivariate Test of Significance

TEST NAME	VALUE	APP. F	HYP. F	ERROR DF	SIG. F
Wilks	.9221	.45521	6.00	66.00	.839

HBI-High Stress: Univariate F-tests with (2,35) D. F.

VAR.	HSS	ESS	HMS	EMS	F	SIG. F
TASN	297.786	6252.02	148.89	178.62	.8335	.443
FTSN	172.961	5896.01	86.48	168.45	.5133	.603
AFSN	255.951	14490.6	127.97	414.01	.3091	.736

Note. TASN = Thinking-Acting High Stress Natural Bipolar
 FTSN = Feeling-Thinking High Stress Natural Bipolar
 AFSN = Acting-Feeling High Stress Natural Bipolar

study the researcher allowed the clients to place themselves in a highly stressful situation. The thinking was that if there was a typical pattern of responses among the eating disorders groups, then this vulnerability to stressful situations would be a contributing factor to the development of an eating disorder. However, the researcher perceives that it was in this situational context that the failure to differentiate between groups occurred.

For example, one anorexic stated that her high stress situation involved being hospitalized for her eating disorder. Her predominant response pattern was acting-feeling. This could be expected in light of the circumstances this individual was being forced to deal with at the time. A bulimic indicated that her high stress situation involved passing a final exam. Her predominant pattern was thinking-acting, which could be expected in light of the need to mobilize one's cognitive apparatus to pass the test. Finally, a non-clinical individual revealed that her high stress situation was a job interview. Her predominant pattern was feeling-thinking, which could be expected if one was confronted with the desire to make a good impression and yet maintain clear thoughts.

Therefore, the researcher has concluded that the responses tend to be situationally specific. This study has provided valuable information in noting that these behavioral

response patterns are not global traits. It is suggested that future studies deal with a stressful situation specific to the eating disorders in order that response patterns relating to the anorexia or bulimia might be ascertained.

CHAPTER V

SUMMARY

Procedure

Anorexia nervosa, bulimia nervosa, and non-clinical individuals were recruited to participate in a study of transgenerational family processes, interpersonal relations orientations, coping strategies, and stressful behavioral response patterns.

A booklet was completed by 7 anorexia nervosa patients, 12 bulimia nervosa patients, and 19 non-clinical individuals. The research instruments were designed to measure transgenerational family processes, interpersonal relations orientations, coping strategies, and stressful behavioral response patterns respectively.

Separate multivariate analysis of variance (MANOVA) procedures were performed on the variables to determine if significant differences existed among the groups. The findings indicated differences in regards to transgenerational family processes, interpersonal relations orientations, and coping strategies.

Significant Findings

This research study was concerned with the following four research questions:

1. Is there a significant difference among anorexics, bulimics, and non-clinical individuals in terms of transgenerational family processes?

2. Is there a significant difference among anorexics, bulimics, and non-clinical individuals in terms of interpersonal relations orientations?

3. Is there a significant difference among anorexics, bulimics, and non-clinical individuals in terms of coping strategies?

4. Is there a significant difference among anorexics, bulimics, and non-clinical individuals in terms of stressful behavioral response patterns?

The researcher measured transgenerational family processes with the PAFS, interpersonal relations orientations with the FIRO-B, coping strategies with the YA-COPE, and stressful behavioral response patterns with the HBI. The researcher used multivariate analysis of variance (MANOVA) procedures on the variables, within the respective tests, to determine if significant differences existed between groups on a set of dependent measures. Univariate analysis of variance (ANOVA) were then computed to determine the variables which differentiated the groups. Finally, Tukey post hoc comparison procedures were conducted to determine which groups differed on the variables (Bray & Maxwell, 1985).

A summary of the differences among the groups is found

in Table 9. Significant differences were found between anorexia nervosa patients and non-clinical individuals on the following variables: intergenerational intimacy, intergenerational individuation, personal authority, intergenerational triangulation, peer intimacy, wanted control, family problem solving, self reliance and positive appraisal, and spirituality. Significant differences were found between bulimia nervosa patients and non-clinical individuals on the following variables: intergenerational intimacy, intergenerational individuation, personal authority, intergenerational intimidation, intergenerational triangulation, wanted control, family problem solving, self reliance and positive appraisal, high activity level, and low activity level. Significant differences were found between anorexia nervosa patients and bulimia nervosa patients in terms of peer intimacy.

Implications for Research

The future of research in the eating disorders will need to amplify on the findings of this study, as well as other studies which are examining the physiological, psychological, familial, and sociocultural variables that contribute to the development and maintenance of a particular eating disorder.

In regards to familial issues, it has been found in this study that transgenerational family patterns are significantly different among anorexics, bulimics, and

Table 9

Summary of Group Differences

Group	AN vs. NC	BN vs. NC	AN vs. BN
II	*	*	
IN	*	*	
PA	*	*	
IT	*	*	
IR	*	*	
PI	*		*
PN		suspend judgment	
WC	*	*	
FP	*	*	
SR	*	*	
HL		*	
SP	*		
LL		*	

Note 1. II = Intergenerational Intimacy
 IN = Intergenerational Individuation
 PA = Personal Authority
 IT = Intergenerational Intimidation
 IR = Intergenerational Triangulation
 PI = Peer Intimacy
 PN = Peer Individuation
 WC = Wanted Control
 FP = Family Problem Solving
 SR = Self Reliance and Positive Appraisal
 HL = High Activity Level
 SP = Spiritual
 LL = Low Activity Level

Note 2. The suspension of judgment takes place when there is a significant MANOVA followed by a significant ANOVA, but the situation is such that the TUKEY is not sensitive enough to discriminate among the groups.

non-clinical individuals. The PAFS has indicated that anorexics and bulimics experience difficulties with such issues as intergenerational intimacy, intergenerational individuation, personal authority, intergenerational intimidation, and intergenerational triangulation. It would appear that future studies need to couple subjective reports with observational assessments. One of the areas in which this type of research would be most beneficial is in examinations of the father-daughter dyad. A close examination of the PAFS scores indicated that many of the transgenerational family difficulties revolve around the father-daughter dyad. An exploration of the transgenerational messages regarding male-female relationships and observational measurement of father-daughter interaction patterns might provide a better understanding of their interaction sequences.

In addition, it may be informative to examine the transgenerational messages that the family has adopted pertaining to food and weight. Again, family histories dealing with the role of food/weight might be coupled with observations of family meals. These studies might reveal any differences that might exist between eating disordered families and non-clinical families.

Also, an investigation into the possible relationships between sexual abuse and the development of an eating disorder might be considered. Recent reports are

suggesting that child sexual abuse is oftentimes an antecedent to the development of an eating disorder (Goldfarb, 1987; Sloan & Leichner, 1986). The present study indicated that transgenerational family issues exist in eating disordered families and a sensitivity to the possibility of sexual abuse would be a logical variable to consider in future studies.

In regards to transgenerational family issues, any study that investigates the means by which families initiate and sustain the dysfunctional interaction sequences that maintain the disorder would be appropriate.

Furthermore, studies focusing on personality dysfunctions and the eating disorders need to be conducted to help determine possible reasons for the paralyzing sense of ineffectiveness exhibited by eating disordered clientele. In this study, the usage of the FIRO-B indicated that eating disorders clients want other people to control them in interpersonal relations. However, the literature indicates that eating disordered individuals consistently reveal control as one of the most characteristic patterns of their existence (Roberto, 1986; Root, Fallon, & Friedrich, 1986). This type of oppositional response pattern seems to be very similar to the splitting defense mechanism that is utilized by patients diagnosed as having a borderline personality (Johnson & Connors, 1987). Therefore, the relationship between borderline personality disorders and the eating

disorders would be a pertinent area for further inquiry.

From the stress related material, it appears that studies need to be designed to examine the coping strategies of anorexics and bulimics in greater depth. The YA-COPES suggested that these individuals utilize avoidance and behavioral coping strategies, but fail to incorporate cognitive strategies into their coping styles. A preliminary area of inquiry would be to formulate a series of formal reasoning tasks to ascertain whether or not these individuals have cognitive deficits. In addition, neuropsychological assessments might be beneficial in helping to determine if psychological dysfunction exists.

Finally, the literature indicates that biological/physiological factors, sociocultural factors, familial factors, and psychological factors contribute to the development of the eating disorders. This information has proved to be very helpful in designing intervention programs. However, it appears that the incorporation of more in-depth studies of these factors will enable researchers to become more adept at developing prevention programs. Therefore, more in-depth studies focusing on individual factors and utilizing statistical procedures such as LISREL might assist researchers to arrange data in a systematic fashion and become more predictive in nature. The application of these findings will ultimately assist in the

development of comprehensive programs for the treatment of eating disorders which focus on both the prevention and intervention levels.

Implications for Treatment

The implications of this study in the development of treatment programs appears to be three-fold. The material from the PAFS suggests that transgenerational family therapy (Root, Friedrich, & Fallon, 1986) needs to be a fundamental component of the treatment program. An attempt needs to be made to ameliorate some of the issues that tend to produce the concept of a "family legacy" (Roberto, 1986), such as the inability to develop intergenerational intimacy, the failure to establish intergenerational individuation, the fear of intergenerational intimidation, the lack of personal authority, and the pattern of intergenerational triangulation. Therefore, it appears that an attempt to deal with the developmental milestone of separation-individuation needs to be a fundamental component of transgenerational family therapy (Johnson & Connors, 1987).

In addition, therapeutic interventions must also address the issue of control. As reported previously, the FIRO-B suggested that eating disordered clients want others to control them in interpersonal relations. However, other studies have indicated that they stringently adhere to

control in every aspect of their lives (Garner & Garfinkel, 1985). Remediation of these self control deficiencies needs to be a fundamental concern in developing an advantageous environment for change. This type of intervention might be helpful in assisting these patients in developing abilities to compensate for their impoverished ego resources. Successfully dealing with the control issue will help to break down the tendency of these individuals to be highly dependent on others for need gratification or self regulation (Crisp, 1980; Heilbrun & Bloomfield, 1986).

Finally, the YA-COPES material has suggested that avoidance and behavioral coping styles are successfully used when confronted with stressful situations. However, these individuals have been found to possess cognitive deficiencies in information processing (Johnson & Connors, 1987). Successful approaches to developing stress regulating mechanisms need to include cognitive therapies. The incorporation of cognitive coping abilities will enhance the repertoire of coping mechanisms presently utilized by most eating disordered clientele.

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APPENDIX A
DSM-III R CRITERIA

DSM-III RBulimia Nervosa

- A. Recurrent episodes of binge-eating (rapid consumption of a large amount of food in a discrete period of time, usually less than 2 hours).
- B. During the eating binges there is a feelings of a lack of control over the eating behavior.
- C. The individual regularly engages in either self-induced vomiting, use of laxatives, or rigorous dieting or fasting in order to counteract the effects of binge eating.
- D. A minimum average of 2 binge-eating episodes per week for at least three months.

Anorexia Nervosa

- A. Intense fear of becoming obese, even when underweight.
- B. Disturbance in the way in which one's body weight, size, or shape is experienced, e.g., claiming to feel fat even when emaciated; belief that one area of the body is too fat even when obviously underweight.
- C. Refusal to maintain body weight over a minimal normal weight for age and height, e.g., weight loss leading to maintenance of body weight 15% below expected; failure to make expected weight gain during period of growth, leading to body weight 15% below expected.
- D. In females, absence of at least three consecutive menstrual cycles when otherwise expected to occur (primary or secondary amenorrhea).

APPENDIX B
FAMILY STRESS QUESTIONNAIRE

**FAMILY
STRESS
PROJECT**

**Department of FCD
Virginia Tech University
Blacksburg, VA. 24061**

Dear Participant,

I appreciate your willingness to participate in this study of family relationships, interpersonal relationships, coping strategies, and behavioral response patterns. This study is designed to survey young people's attitudes and behaviors in regards to the aforementioned variables. It is important to note that there are no right or wrong answers to the questions in this booklet. This study is simply trying to determine how young people, like yourself, perceive these issues.

I expect that you will be sensitive to the fact that some of the questions are personal and private. I hope that you will share these important aspects of yourself, in order that the results will depict a sincere picture of young people in our society. Your responses will be indexed by your questionnaire number located in the top right hand corner of the booklet. Therefore, your identifying information will remain totally anonymous. The findings will only indicate group trends of young people in our society and will be held in strict confidence.

I trust that you will consent to participate in this study by completing the booklet. Your cooperation is greatly needed for this study to be a success. Thank you for your assistance in this endeavor.

Sincerely,

Karl Hess
Project Director

INFORMED CONSENT

I understand that the purpose of this study is to survey young people's attitudes and behaviors in regards to family relationships, interpersonal relationships, coping strategies, and stressful behavioral response patterns.

I confirm that my participation as a subject is entirely voluntary. No coercion of any kind has been used to obtain my cooperation.

I understand that I may withdraw my consent and terminate my participation at any time during the investigation.

I have been informed of the procedures that will be used in the study and understand what will be required of me as a subject.

I understand that all of my responses, written or oral, will remain completely anonymous.

I also realize that my treatment will not be affected by whether or not I choose to participate in this study.

I wish to give my cooperation as a subject.

Signed: _____

A concern of this study is with individual responses to high stress situations. Therefore, we would like you to think of a situation, which has occurred in your life in the past two months, where a very high level of stress was experienced. Write this situation on the line below:

Picture yourself in this specific situation as you complete the items below. In each item, first decide which of the paired words best describes your behavior in the situation described above. Next focus only on the word you selected, decide how characteristic this word is of your behavior in the situation described above, and mark s (somewhat characteristic), m (moderately characteristic), or v (very characteristic).

EXAMPLE: careful v m s 76 s @ v assertive

This response indicates that in this situation the person was more assertive than careful, and that the word (assertive) was m (moderately) characteristic of his or her behavior in the situation.

Remember to focus on the situation you wrote on the line above and respond to the following 75 items.

	SOMEWHAT MODERATELY				SOMEWHAT MODERATELY VERY				SOMEWHAT MODERATELY VERY					SOMEWHAT MODERATELY VERY					SOMEWHAT MODERATELY VERY
1	emerging	()	()	()	()	()	()	()	concerned	()	()	()	()	()	()	()	()	()	curious
2	emotional	()	()	()	()	()	()	()	contemplative	()	()	()	()	()	()	()	()	()	curious
3	spontaneous	()	()	()	()	()	()	()	rational	()	()	()	()	()	()	()	()	()	curious
4	analytical	()	()	()	()	()	()	()	sensitive	()	()	()	()	()	()	()	()	()	curious
5	doing	()	()	()	()	()	()	()	concerned	()	()	()	()	()	()	()	()	()	curious
6	caring	()	()	()	()	()	()	()	contemplative	()	()	()	()	()	()	()	()	()	curious
7	assertive	()	()	()	()	()	()	()	concerned	()	()	()	()	()	()	()	()	()	curious
8	rational	()	()	()	()	()	()	()	decisive	()	()	()	()	()	()	()	()	()	curious
9	analytical	()	()	()	()	()	()	()	concerned	()	()	()	()	()	()	()	()	()	curious
10	emotional	()	()	()	()	()	()	()	decisive	()	()	()	()	()	()	()	()	()	curious
11	doing	()	()	()	()	()	()	()	contemplative	()	()	()	()	()	()	()	()	()	curious
12	compassionate	()	()	()	()	()	()	()	rational	()	()	()	()	()	()	()	()	()	curious
13	caring	()	()	()	()	()	()	()	curious	()	()	()	()	()	()	()	()	()	curious
14	spontaneous	()	()	()	()	()	()	()	concerned	()	()	()	()	()	()	()	()	()	curious
15	caring	()	()	()	()	()	()	()	logical	()	()	()	()	()	()	()	()	()	curious
16	doing	()	()	()	()	()	()	()	rational	()	()	()	()	()	()	()	()	()	curious
17	deceive	()	()	()	()	()	()	()	contemplative	()	()	()	()	()	()	()	()	()	curious
18	emotional	()	()	()	()	()	()	()	irritating	()	()	()	()	()	()	()	()	()	curious
19	irritating	()	()	()	()	()	()	()	curious	()	()	()	()	()	()	()	()	()	curious
20	spontaneous	()	()	()	()	()	()	()	caring	()	()	()	()	()	()	()	()	()	curious
21	sensitive	()	()	()	()	()	()	()	contemplative	()	()	()	()	()	()	()	()	()	curious
22	spontaneous	()	()	()	()	()	()	()	emotional	()	()	()	()	()	()	()	()	()	curious
23	irritating	()	()	()	()	()	()	()	analytical	()	()	()	()	()	()	()	()	()	curious
24	compassionate	()	()	()	()	()	()	()	doing	()	()	()	()	()	()	()	()	()	curious
25	assertive	()	()	()	()	()	()	()	caring	()	()	()	()	()	()	()	()	()	curious
26	rational	()	()	()	()	()	()	()	assertive	()	()	()	()	()	()	()	()	()	curious
27	logical	()	()	()	()	()	()	()	sensitive	()	()	()	()	()	()	()	()	()	curious
28	concerned	()	()	()	()	()	()	()	contemplative	()	()	()	()	()	()	()	()	()	curious
29	compassionate	()	()	()	()	()	()	()	analytical	()	()	()	()	()	()	()	()	()	curious
30	assertive	()	()	()	()	()	()	()	contemplative	()	()	()	()	()	()	()	()	()	curious
31	irritating	()	()	()	()	()	()	()	sensitive	()	()	()	()	()	()	()	()	()	curious
32	assertive	()	()	()	()	()	()	()	emotional	()	()	()	()	()	()	()	()	()	curious
33	emotional	()	()	()	()	()	()	()	analytical	()	()	()	()	()	()	()	()	()	curious
34	analytical	()	()	()	()	()	()	()	assertive	()	()	()	()	()	()	()	()	()	curious
35	compassionate	()	()	()	()	()	()	()	curious	()	()	()	()	()	()	()	()	()	curious
36	assertive	()	()	()	()	()	()	()	sensitive	()	()	()	()	()	()	()	()	()	curious
37	emotional	()	()	()	()	()	()	()	rational	()	()	()	()	()	()	()	()	()	curious
38	compassionate	()	()	()	()	()	()	()	irritating	()	()	()	()	()	()	()	()	()	curious
39	emerging	()	()	()	()	()	()	()	concerned	()	()	()	()	()	()	()	()	()	curious
40	emotional	()	()	()	()	()	()	()	contemplative	()	()	()	()	()	()	()	()	()	curious
41	spontaneous	()	()	()	()	()	()	()	rational	()	()	()	()	()	()	()	()	()	curious
42	analytical	()	()	()	()	()	()	()	sensitive	()	()	()	()	()	()	()	()	()	curious
43	doing	()	()	()	()	()	()	()	concerned	()	()	()	()	()	()	()	()	()	curious
44	caring	()	()	()	()	()	()	()	contemplative	()	()	()	()	()	()	()	()	()	curious
45	assertive	()	()	()	()	()	()	()	concerned	()	()	()	()	()	()	()	()	()	curious
46	rational	()	()	()	()	()	()	()	decisive	()	()	()	()	()	()	()	()	()	curious
47	analytical	()	()	()	()	()	()	()	concerned	()	()	()	()	()	()	()	()	()	curious
48	emotional	()	()	()	()	()	()	()	decisive	()	()	()	()	()	()	()	()	()	curious
49	doing	()	()	()	()	()	()	()	contemplative	()	()	()	()	()	()	()	()	()	curious
50	compassionate	()	()	()	()	()	()	()	rational	()	()	()	()	()	()	()	()	()	curious
51	caring	()	()	()	()	()	()	()	curious	()	()	()	()	()	()	()	()	()	curious
52	spontaneous	()	()	()	()	()	()	()	concerned	()	()	()	()	()	()	()	()	()	curious
53	caring	()	()	()	()	()	()	()	logical	()	()	()	()	()	()	()	()	()	curious
54	doing	()	()	()	()	()	()	()	rational	()	()	()	()	()	()	()	()	()	curious
55	deceive	()	()	()	()	()	()	()	contemplative	()	()	()	()	()	()	()	()	()	curious
56	emotional	()	()	()	()	()	()	()	irritating	()	()	()	()	()	()	()	()	()	curious
57	irritating	()	()	()	()	()	()	()	curious	()	()	()	()	()	()	()	()	()	curious
58	spontaneous	()	()	()	()	()	()	()	caring	()	()	()	()	()	()	()	()	()	curious
59	sensitive	()	()	()	()	()	()	()	contemplative	()	()	()	()	()	()	()	()	()	curious
60	spontaneous	()	()	()	()	()	()	()	emotional	()	()	()	()	()	()	()	()	()	curious
61	irritating	()	()	()	()	()	()	()	analytical	()	()	()	()	()	()	()	()	()	curious
62	compassionate	()	()	()	()	()	()	()	doing	()	()	()	()	()	()	()	()	()	curious
63	assertive	()	()	()	()	()	()	()	caring	()	()	()	()	()	()	()	()	()	curious
64	rational	()	()	()	()	()	()	()	assertive	()	()	()	()	()	()	()	()	()	curious
65	logical	()	()	()	()	()	()	()	sensitive	()	()	()	()	()	()	()	()	()	curious
66	concerned	()	()	()	()	()	()	()	contemplative	()	()	()	()	()	()	()	()	()	curious
67	compassionate	()	()	()	()	()	()	()	analytical	()	()	()	()	()	()	()	()	()	curious
68	assertive	()	()	()	()	()	()	()	contemplative	()	()	()	()	()	()	()	()	()	curious
69	irritating	()	()	()	()	()	()	()	sensitive	()	()	()	()	()	()	()	()	()	curious
70	assertive	()	()	()	()	()	()	()	emotional	()	()	()	()	()	()	()	()	()	curious
71	emotional	()	()	()	()	()	()	()	analytical	()	()	()	()	()	()	()	()	()	curious
72	analytical	()	()	()	()	()	()	()	assertive	()	()	()	()	()	()	()	()	()	curious
73	compassionate	()	()	()	()	()	()	()	curious	()	()	()	()	()	()	()	()	()	curious
74	assertive	()	()	()	()	()	()	()	sensitive	()	()	()	()	()	()	()	()	()	curious
75	emotional	()	()	()	()	()	()	()	rational	()	()	()	()	()	()	()	()	()	curious
76	compassionate	()	()	()	()	()	()	()	irritating	()	()	()	()	()	()	()	()	()	curious

Use the following scale to answer items 17 to 58:

1	2	3	4	5
strongly agree	agree	neutral	disagree	strongly disagree

- _____ 17. I usually help my parents understand me by telling them how I think, feel, and believe.
- _____ 18. I sometimes wonder how much my parents really love me.
- _____ 19. I get together with my mother from time to time for conversation and recreation.
- _____ 20. I get together with my father from time to time for conversation and recreation.
- _____ 21. I often get so emotional with my parents that I cannot think straight.
- _____ 22. I share my true feelings with my mother about the significant events in my life.
- _____ 23. I share my true feelings with my father about the significant events in my life.
- _____ 24. I worry that my parents cannot take care of themselves when I am not around.
- _____ 25. I can trust my mother with things we share.
- _____ 26. I can trust my father with things we share.
- _____ 27. I am fair in my relationships with my mother.
- _____ 28. I am fair in my relationships with my father.
- _____ 29. I am usually able to disagree with my parents without losing my temper.
- _____ 30. My parents do things that embarrass me.
- _____ 31. I openly show tenderness toward my mother.
- _____ 32. I openly show tenderness toward my father.
- _____ 33. My mother and I have mutual respect for each other.
- _____ 34. My father and I have mutual respect for each other.
- _____ 35. I am fond of my mother.
- _____ 36. I am fond of my father.
- _____ 37. My parents say one thing to me and really mean another.
- _____ 38. My father and I are important people in each other's lives.
- _____ 39. My parents frequently try to change some aspect of my personality.
- _____ 40. My mother and I are important people in each other's lives.
- _____ 41. My present day problems would be fewer or less severe if my parents had acted or behaved differently.

For each statement below, decide which of the following answers best applies to you. Place the number of the answer in the box at the left of the statement. Please be as honest as you can.

1. never 2. rarely 3. occasionally 4. sometimes 5. often 6. usually

- | | |
|---|---|
| <input type="checkbox"/> 1. I try to be with people. | <input type="checkbox"/> 9. I try to include other people in my plans. |
| <input type="checkbox"/> 2. I let other people decide what to do. | <input type="checkbox"/> 10. I let other people control my actions. |
| <input type="checkbox"/> 3. I join social groups. | <input type="checkbox"/> 11. I try to have people around me. |
| <input type="checkbox"/> 4. I try to have close relationships with people. | <input type="checkbox"/> 12. I try to get close and personal with people. |
| <input type="checkbox"/> 5. I tend to join social organizations when I have an opportunity. | <input type="checkbox"/> 13. When people are doing things together I tend to join them. |
| <input type="checkbox"/> 6. I let other people strongly influence my actions. | <input type="checkbox"/> 14. I am easily led by people. |
| <input type="checkbox"/> 7. I try to be included in informal social activities. | <input type="checkbox"/> 15. I try to avoid being alone. |
| <input type="checkbox"/> 8. I try to have close, personal relationships with people. | <input type="checkbox"/> 16. I try to participate in group activities. |

For each of the next group of statements, choose one of the following answers:

1. nobody 2. one or two 3. a few 4. some 5. many 6. most
 people people people people people

- | | |
|--|---|
| <input type="checkbox"/> 17. I try to be friendly to people. | <input type="checkbox"/> 23. I try to get close and personal with people. |
| <input type="checkbox"/> 18. I let other people decide what to do. | <input type="checkbox"/> 24. I let other people control my actions. |
| <input type="checkbox"/> 19. My personal relations with people are cool and distant. | <input type="checkbox"/> 25. I act cool and distant with people. |
| <input type="checkbox"/> 20. I let other people take charge of things. | <input type="checkbox"/> 26. I am easily led by people. |
| <input type="checkbox"/> 21. I try to have close relationships with people. | <input type="checkbox"/> 27. I try to have close, personal relationships with people. |
| <input type="checkbox"/> 22. I let other people strongly influence my actions. | |

A concern of this study is with individual responses to low stress situations. Therefore, we would like you to think of a situation, which has occurred in your life in the past few months, where a very low level of stress was experienced. Write this situation on the line below:

Picture yourself in this specific situation as you complete the items below. In each item, first decide which of the paired words best describes your behavior in the situation described above. Next focus only on the word you selected, decide how characteristic this word is of your behavior in the situation described above, and mark s (somewhat characteristic), m (moderately characteristic), or v (very characteristic).

EXAMPLE: analytical (v) m s 69 s m v doing

This response indicates that in this situation the person was more analytical than doing, and that the word analytical was v (very) characteristic of his or her behavior in the situation.

Remember to focus on the situation you wrote on the line above and respond to the following 75 items.

SOMEWHAT MODERATELY VERY							
irritating	(v)	(m)	(s)	1	(m)	(s)	concerned
emotional	(v)	(m)	(s)	2	(m)	(s)	contemplative
spontaneous	(v)	(m)	(s)	3	(m)	(s)	rational
analytical	(v)	(m)	(s)	4	(m)	(s)	sensitive
doing	(v)	(m)	(s)	5	(m)	(s)	concerned
caring	(v)	(m)	(s)	6	(m)	(s)	contemplative
assertive	(v)	(m)	(s)	7	(m)	(s)	concerned
rational	(v)	(m)	(s)	8	(m)	(s)	decisive
analytical	(v)	(m)	(s)	9	(m)	(s)	concerned
emotional	(v)	(m)	(s)	10	(m)	(s)	decisive
doing	(v)	(m)	(s)	11	(m)	(s)	contemplative
compassionate	(v)	(m)	(s)	12	(m)	(s)	rational
caring	(v)	(m)	(s)	13	(m)	(s)	curious
spontaneous	(v)	(m)	(s)	14	(m)	(s)	concerned
caring	(v)	(m)	(s)	15	(m)	(s)	logical
doing	(v)	(m)	(s)	16	(m)	(s)	rational
decisive	(v)	(m)	(s)	17	(m)	(s)	contemplative
emotional	(v)	(m)	(s)	18	(m)	(s)	irritating
irritating	(v)	(m)	(s)	19	(m)	(s)	curious
spontaneous	(v)	(m)	(s)	20	(m)	(s)	caring
sensitive	(v)	(m)	(s)	21	(m)	(s)	contemplative
spontaneous	(v)	(m)	(s)	22	(m)	(s)	emotional
irritating	(v)	(m)	(s)	23	(m)	(s)	analytical
compassionate	(v)	(m)	(s)	24	(m)	(s)	doing
assertive	(v)	(m)	(s)	25	(m)	(s)	caring
rational	(v)	(m)	(s)	26	(m)	(s)	assertive
logical	(v)	(m)	(s)	27	(m)	(s)	sensitive
concerned	(v)	(m)	(s)	28	(m)	(s)	contemplative
compassionate	(v)	(m)	(s)	29	(m)	(s)	analytical
assertive	(v)	(m)	(s)	30	(m)	(s)	contemplative
irritating	(v)	(m)	(s)	31	(m)	(s)	sensitive
assertive	(v)	(m)	(s)	32	(m)	(s)	emotional
emotional	(v)	(m)	(s)	33	(m)	(s)	analytical
analytical	(v)	(m)	(s)	34	(m)	(s)	assertive
compassionate	(v)	(m)	(s)	35	(m)	(s)	curious
assertive	(v)	(m)	(s)	36	(m)	(s)	sensitive
emotional	(v)	(m)	(s)	37	(m)	(s)	rational
compassionate	(v)	(m)	(s)	38	(m)	(s)	irritating
decisive	(v)	(m)	(s)	39	(m)	(s)	curious
caring	(v)	(m)	(s)	40	(m)	(s)	sensitive
analytical	(v)	(m)	(s)	41	(m)	(s)	concerned
spontaneous	(v)	(m)	(s)	42	(m)	(s)	doing
emotional	(v)	(m)	(s)	43	(m)	(s)	logical
compassionate	(v)	(m)	(s)	44	(m)	(s)	assertive
sensitive	(v)	(m)	(s)	45	(m)	(s)	doing
logical	(v)	(m)	(s)	46	(m)	(s)	compassionate
spontaneous	(v)	(m)	(s)	47	(m)	(s)	sensitive
analytical	(v)	(m)	(s)	48	(m)	(s)	caring
rational	(v)	(m)	(s)	49	(m)	(s)	irritating
spontaneous	(v)	(m)	(s)	50	(m)	(s)	analytical
curious	(v)	(m)	(s)	51	(m)	(s)	sensitive
logical	(v)	(m)	(s)	52	(m)	(s)	concerned
doing	(v)	(m)	(s)	53	(m)	(s)	caring
concerned	(v)	(m)	(s)	54	(m)	(s)	curious
compassionate	(v)	(m)	(s)	55	(m)	(s)	contemplative
logical	(v)	(m)	(s)	56	(m)	(s)	irritating
concerned	(v)	(m)	(s)	57	(m)	(s)	rational
logical	(v)	(m)	(s)	58	(m)	(s)	emotional
irritating	(v)	(m)	(s)	59	(m)	(s)	contemplative
decisive	(v)	(m)	(s)	60	(m)	(s)	concerned
sensitive	(v)	(m)	(s)	61	(m)	(s)	decisive
spontaneous	(v)	(m)	(s)	62	(m)	(s)	compassionate
logical	(v)	(m)	(s)	63	(m)	(s)	assertive
spontaneous	(v)	(m)	(s)	64	(m)	(s)	curious
decisive	(v)	(m)	(s)	65	(m)	(s)	caring
doing	(v)	(m)	(s)	66	(m)	(s)	logical
emotional	(v)	(m)	(s)	67	(m)	(s)	doing
decisive	(v)	(m)	(s)	68	(m)	(s)	logical
curious	(v)	(m)	(s)	69	(m)	(s)	assertive
analytical	(v)	(m)	(s)	70	(m)	(s)	doing
spontaneous	(v)	(m)	(s)	71	(m)	(s)	logical
emotional	(v)	(m)	(s)	72	(m)	(s)	curious
compassionate	(v)	(m)	(s)	73	(m)	(s)	assertive
irritating	(v)	(m)	(s)	74	(m)	(s)	caring
doing	(v)	(m)	(s)	75	(m)	(s)	curious
rational	(v)	(m)	(s)	76	(m)	(s)	sensitive

The following segment of the study is concerned with the responses individuals give when facing difficulties or feeling tense. Choose the frequency that best describes your response pattern when facing difficulties or feeling tense.

	When you face difficulties or feel tense, how often do you (Circle your answer)				
	NEVER	RARELY	SOMETIMES	OFTEN	MOST OF THE TIME
1. Go along with parents' requests and rules?	1	2	3	4	5
2. Read.	1	2	3	4	5
3. Try to be funny and make light of it all.	1	2	3	4	5
4. Apologize to people.	1	2	3	4	5
5. Listen to music -- stereo, radio, etc.	1	2	3	4	5
6. Talk to instructor, advisor or counselor at school about what bothers you.	1	2	3	4	5
7. Eat food.	1	2	3	4	5
8. Try to stay away from home as much as possible.	1	2	3	4	5
9. Use drugs prescribed by a doctor.	1	2	3	4	5
10. Get more involved in activities at college.	1	2	3	4	5
11. Go shopping; buy things you like.	1	2	3	4	5
12. Try to reason with parents and talk things out; compromise	1	2	3	4	5
13. Try to improve yourself (get body in shape, get better grades, etc.).	1	2	3	4	5
14. Cry.	1	2	3	4	5
15. Try to think of the good things in your life.	1	2	3	4	5
16. Be with a boyfriend or girlfriend.	1	2	3	4	5
17. Ride around in the car.	1	2	3	4	5

When you face difficulties or feel tense,
how often do you
(Circle your answer)

	NEVER	RARELY	SOMETIMES	OFTEN	MOST OF THE TIME
18. Say nice things to others.	1	2	3	4	5
19. Get angry and yell at people.	1	2	3	4	5
20. Joke and keep a sense of humor.	1	2	3	4	5
21. Talk to a minister/priest/ rabbi.	1	2	3	4	5
22. Let off steam by complaining to family members.	1	2	3	4	5
23. Go to church.	1	2	3	4	5
24. Use drugs (not prescribed by a doctor).	1	2	3	4	5
25. Organize your life and what you have to do.	1	2	3	4	5
26. Swear or act rowdy.	1	2	3	4	5
27. Work hard on schoolwork or other school projects.	1	2	3	4	5
28. Blame others for what's going wrong.	1	2	3	4	5
29. Be close with someone you care about.	1	2	3	4	5
30. Try to help other people solve their problems.	1	2	3	4	5
31. Talk to your mother about what bothers you.	1	2	3	4	5
32. Try, on your own, to figure out how to deal with your problems or tension.	1	2	3	4	5
33. Work on a hobby you have (sew- ing, model building, etc.)	1	2	3	4	5
34. Try to make new friends at college.	1	2	3	4	5

When you face difficulties or feel tense,
how often do you
(Circle your answer)

	NEVER	RARELY	SOMETIMES	OFTEN	MOST OF THE TIME
35. Get professional therapy.	1	2	3	4	5
36. Try to keep up high school friendships.	1	2	3	4	5
37. Tell yourself the problem is not important.	1	2	3	4	5
38. Go to a movie.	1	2	3	4	5
39. Daydream about how you would like things to be.	1	2	3	4	5
40. Talk to a brother or sister about how you feel.	1	2	3	4	5
41. Get a job or work harder at one.	1	2	3	4	5
42. Do things with your family.	1	2	3	4	5
43. Smoke.	1	2	3	4	5
44. Watch T.V.	1	2	3	4	5
45. Pray.	1	2	3	4	5
46. Try to see the good things in a difficult situation.	1	2	3	4	5
47. Drink beer, wine, liquor.	1	2	3	4	5
48. Try to make your own decisions.	1	2	3	4	5
49. Sleep.	1	2	3	4	5
50. Say mean things to people; by sarcastic.	1	2	3	4	5
51. Talk to your father about what bothers you.	1	2	3	4	5
52. Let off steam by complaining to friends.	1	2	3	4	5

	When you face difficulties or feel tense, how often do you (Circle your answer)				
	NEVER	RARELY	SOMETIMES	OFTEN	MOST OF THE TIME
53. Talk to a friend about how you feel.	1	2	3	4	5
54. Play video games (Space- Invaders, Pac-Man), pool, pinball, etc.	1	2	3	4	5
55. Do a strenuous physical activity (jogging, biking, etc.).	1	2	3	4	5
56. Try to be alone.	1	2	3	4	5

Next, we would like to ask you a few questions about your-
self to help us interpret the results of this study.

1. Your present age: _____ YEARS
2. What is your present height?
_____ ft. _____ in.
3. What is your present weight?
_____ lbs.
4. What is your sex?
1 MALE
2 FEMALE

This segment of the study is concerned with the attitudes of young adults in regards to food and eating behaviors. Choose the frequency that best describes your attitude.

Choose the frequency that best describes your attitude. (Circle your answer)						
	NEVER	RARELY	SOMETIMES	OFTEN	USUALLY	ALWAYS
1. Am terrified about being overweight.	1	2	3	4	5	6
2. Avoid eating when I am hungry.	1	2	3	4	5	6
3. Find myself preoccupied with food.	1	2	3	4	5	6
4. Have gone on eating binges where I feel that I may not be able to stop.	1	2	3	4	5	6
5. Cut my food into small pieces.	1	2	3	4	5	6
6. Aware of the calorie content of foods that I eat.	1	2	3	4	5	6
7. Particularly avoid foods with a high carbohydrate content, (e.g. bread, rice, potatoes etc).	1	2	3	4	5	6
8. Feel that others would prefer if I ate more.	1	2	3	4	5	6
9. Vomit after I have eaten.	1	2	3	4	5	6
10. Feel extremely guilty after eating.	1	2	3	4	5	6
11. Am preoccupied with a desire to be thinner.	1	2	3	4	5	6
12. Think about burning up calories when I exercise.	1	2	3	4	5	6
13. Other people think that I am too thin.	1	2	3	4	5	6
14. Am preoccupied with the thought of having fat on my body.	1	2	3	4	5	6
15. Take longer than others to eat my meals.	1	2	3	4	5	6
16. Avoid foods with sugar in them.	1	2	3	4	5	6
17. Eat diet foods.	1	2	3	4	5	6
18. Feel that food controls my life.	1	2	3	4	5	6

Choose the frequency that best describes your attitude.
(Circle your answer)

	NEVER	RARELY	SOMETIMES	OFTEN	USUALLY	ALWAYS
19. Display self control around food.	1	2	3	4	5	6
20. Feel that others pressure me to eat.	1	2	3	4	5	6
21. Give too much time and thought to food.	1	2	3	4	5	6
22. Feel uncomfortable after eating sweets.	1	2	3	4	5	6
23. Engage in dieting behavior.	1	2	3	4	5	6
24. Like my stomach to be empty.	1	2	3	4	5	6
25. Enjoy trying new rich foods.	1	2	3	4	5	6
26. Have the impulse to vomit after meals.	1	2	3	4	5	6

APPENDIX C
CLASS LETTER

CLASS

My name is Karl Hess and I am conducting my dissertation research at Virginia Tech. My study is designed to survey young people's attitudes and behaviors in regards to family relationships, interpersonal relationships, coping strategies, and stressful behavioral response patterns. The findings of this study will provide information regarding young people's attitudes, opinions, and behaviors as they relate to families and stress. This information will be very useful in helping young people better understand themselves, as well as help those who work with young people in difficult situations.

I have a booklet which asks various questions about your attitudes and behaviors in regards to family relationships, interpersonal relationships, coping strategies, and stressful behavioral response patterns. I trust that you will cooperate in this study by completing the booklet during this class period.

I can assure you that all of your answers will remain totally anonymous and be held in the strictest confidence. You will not be identified in any way. Your participation is completely voluntary and your class grade will not be affected by your decision about whether or not to participate.

Your cooperation is greatly needed for this study to be a success. I hope that you will consent to participate in this study by completing the booklet. Thank you for your assistance in this endeavor.

APPENDIX D
DIRECTOR LETTER

Dear Director,

I am writing to request your help and cooperation in regards to my dissertation study that I am conducting at Virginia Tech. The purpose of the study is to examine the differences among anorexics, bulimics, and non-clinical individuals in terms of transgenerational family processes, interpersonal relations orientations, coping skills, and stressful behavioral response patterns. In addition, for each group, relationships between each of the above variables will also be investigated. The findings of this study will have significant implications for understanding eating disordered families, as well as contribute to the field of prevention and intervention.

I have enclosed a copy of the individual tests to be utilized in this study. The tests, which will be sequentially arranged into a booklet to be distributed to the clients, include the Hutchins Behavior Inventory, the Personal Authority in the Family System Questionnaire, the Young-Adult Copes, and the Fundamental Interpersonal Relations-Behavior Questionnaire.

I would be most appreciative if you would allow me to utilize the clients in your eating disorders clinic as potential subjects for my study. The procedure for implementation would involve me personally delivering the booklets to you sometime between May 4-8, you would distribute the booklets to the anorexic and bulimic clients, the clients would complete the booklets at their convenience, they would return the finished booklets to you, and I would return to pick up the booklets at an agreed upon date (sometime during the last week of May). It is important to note that this procedure for implementation is only tentative and could be modified to satisfy individual needs and concerns.

I would be willing to share the results with you, as well as do anything else that might benefit your clinic in this endeavor. Your help and cooperation will greatly facilitate the success of this study. I thank you for your willingness to attend to this request. If you have any questions, please feel free to call me at

Sincerely,

Karl Hess
Project Director

APPENDIX E
CLINIC LETTER

CLINIC

Karl Hess is conducting his dissertation research at Virginia Tech. His study is designed to survey young people's attitudes and behaviors in regards to family relationships, interpersonal relationships, coping strategies, and stressful behavioral response patterns. The findings of his study will provide information regarding young people's attitudes, opinions, and behaviors as they relate to families and stress. This information will be very useful in helping young people better understand themselves, as well as help those who work with young people in difficult situations.

I have a booklet which asks various questions about your attitudes and behaviors in regards to family relationships, interpersonal relationships, coping strategies, and stressful behavioral response patterns. I trust that you will cooperate in this study by completing the entire booklet at one time, sometime during the next two weeks, and return the finished booklet to me.

I can assure you that all of your answers will remain totally anonymous and be held in the strictest confidence. You will not be identified in any way. Your participation is completely voluntary and your treatment will not be affected by your decision about whether or not to participate.

Your cooperation is greatly needed for this study to be a success. I hope that you will consent to participate in this study by completing the booklet. Thank you for your assistance in this endeavor.

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the scanned document**