Personality sex-roles and family variables: a comparison of bulimics and binge-eaters in a college population

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PERSONALITY, SEX-ROLES, AND FAMILY VARIABLES:
A COMPARISON OF BULIMICS AND BINGE-EATERS
IN A COLLEGE POPULATION

By
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B.S., University of Wisconsin-River Falls, 1983

Presented in partial fulfillment of the requirements
for the degree of
Master of Arts
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1985

Approved by:

[Signatures]

Ph. D. Board of Examiners
Dean, Graduate School

Date: June 3, 1985

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The present investigation assessed personality, family, and behavioral characteristics in 129 college women classified as bulimics, binge-eaters, and controls. The three groups were formed on the basis of their scores on the Bulimia Test (BULIT). Thirteen percent (13%) of the subjects met the criteria for bulimia, and 10% met the criteria for binge-eaters. Relative to controls, bulimics reported significantly more depression and family dysfunction on two subscales of the Family Assessment Device (FAD). Binge-eaters scored significantly higher than controls only on the Binge Scale. Bulimics scored higher than binge-eaters only on the Binge Scale and one subscale of the FAD. These results suggest that binge-eaters may not reflect a distinct variant in the spectrum of eating disorders. Rather, binge eating may represent a developmental process leading to bulimia; however, the need for further research contrasting bulimics, binge-eaters, and controls is evident.
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CHAPTER I

INTRODUCTION

Bulimia is a syndrome characterized by episodes of binge eating which are terminated by vomiting, laxative use, abdominal pain or sleep. Additionally, the bulimic individual is preoccupied with food and may experience mild fluctuations in weight (Herzog, 1982).

Research in the eating disorders of anorexia nervosa and obesity led to interest in bulimia (Schlesier-Stropp, 1984). Investigators reported bulimic characteristics in anorectic patients (Ben-Tovim, Marilov, & Crisp, 1979; Casper, Eckert, Halmi, Goldberg, & Davis, 1980; Garfinkel, Moldofsky, & Garner, 1980; Pyle, Mitchell, & Eckert, 1981; Russell, 1979). Two distinct subgroups of anorectics emerged, depending on the method of food intake restriction. One group severely restricted the amount of food ingested and were termed abstainers (Ben-Tovim et al., 1979), restricters (Garfinkel et al., 1980), or the fasting group (Casper et al., 1980). The second subgroup consumed large amounts of food followed by various methods of purging. These individuals were termed vomiters (Ben-Tovim et al., 1979) or bulimics (Casper et al., 1980).

These findings led to a controversy: were bulimia and anorexia nervosa separate syndromes or opposite ends of the same disorder (Schlesier-Stropp, 1984)? Prior to the Diagnostic and Statistical Manual of Mental Disorders-Third Edition (DSM-III) (American Psychiatric Association, 1980), bulimia was considered a variant of anorexia

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and referred to as dysorexia (Guiora, 1967), dietary chaos syndrome (Palmer, 1979), bulimia nervosa (Russell, 1979) or bulimarexia (Boskind-Lodahl & White, 1978). With the publication of DMS-III, bulimia was classified as a distinct eating disorder and its diagnostic criteria were delineated (Table 1).

Table 1
Diagnostic Criteria for Bulimia

A. Recurrent episodes of binge eating (rapid consumption of a large amount of food in a discrete period of time, usually less than two hours).
B. At least three of the following:
   1. Consumption of high-caloric, easily ingested food during a binge
   2. Inconspicuous eating during a binge
   3. Termination of such eating episodes by abdominal pain, sleep, social interruption, or self-induced vomiting
   4. Repeated attempts to lose weight by severely restrictive diets, self-induced vomiting, or use of cathartics or diuretics
   5. Frequent weight fluctuations greater than ten pounds due to alternating binges and fasts
C. Awareness that the eating pattern is abnormal and fear of not being able to stop eating voluntarily.
D. Depressed mood and self-deprecating thoughts following eating binges.
E. The bulimic episodes are not due to Anorexia Nervosa or any known physical disorder.


Differential aspects of the bulimic and anorectic individual will be discussed later in this manuscript.
Incidence of Bulimia

Bulimia is difficult to detect because, in essence, it is a secret behavior. Bulimics take great care to hide their binging and purging from family members, friends, and professionals (Boskind-White & White, 1983). Detection is further hampered because, in general, the individual's shape and weight are within normal limits and their eating behavior in social situations appears normal (Schlesier-Stropp, 1984). It is suggested that the incidence of bulimia is widespread (Boskind-White & White, 1983; Pyle et al., 1981).

Stangler and Printz (1980) reviewed psychiatric diagnoses in a sample of 500 students from the University of Washington Psychiatric Clinic for Students. Of the 22 cases that were diagnosed as having eating disorders, 19 were diagnosed as bulimics (3.8% of the sample). The authors concluded that this would be a conservative estimate of the incidence of bulimia in the general population because this study represented only individuals who sought treatment for the condition. Fairburn and Cooper (1982) placed an ad in a women's magazine requesting people who used self-induced vomiting as a means of weight control to contact the authors if they were willing to complete a confidential questionnaire. Over 1000 replies were received. Using the DSM-II diagnostic criteria for anorexia nervosa, Ben-Tovim et al. (1979) found that 32% of their sample (n=20) controlled their weight by vomiting pathologically. Hamilton, Gelwick, and Meade (1984) estimate that eight percent of the total female undergraduate
population fit the DSM-III diagnostic criteria for bulimia. Further research in this area is indicated in order to obtain a clearer picture of current prevalence rates.

Clinical Features and Demographic Variables of Bulimia

Behavior. The binge and purge cycle becomes a ritual in the lives of bulimic individuals (Boskind-White & White, 1983). The binge episode consists of uncontrolled, rapid ingestion of large quantities of food in a relatively short period of time. The episode may last from as short a period as 15 minutes (Pyle et al., 1981) to--in rare instances--as long as a day (Wermuth, Davis, Hollister, & Stunkard, 1977).

The caloric intake during a single binge varies from 1,000 to as high as 15,000 to 20,000 calories (Russell, 1979). The food consumed tends to be easily ingested sweet or starchy foods that require little or no preparation (Herzog, 1982; Pyle et al., 1981). As the binge episode continues, the individual becomes less discriminating about what is eaten and may resort to ingesting combinations of foods such as fried flour, oil, and sugar (Boskind-White & White, 1983). The binge is conducted in the utmost secrecy. If the individual is socially interrupted during an episode, the binge is continued as soon as the individual is once again alone (Boskind-White & White, 1983; Wermuth et al., 1977). The binging episode is terminated when the individual induces vomiting, goes to sleep, or experiences significant abdominal pain (Herzog, 1982; Pyle et al., 1981; Wermuth et al., 1977). Purging
becomes a purification rite, a means of regaining control and overcoming the feelings of guilt, shame, and self-loathing. The individual often views this as a new beginning and resolves never to binge again. Frequently a new diet is begun and the cycle continues. The bulimic typically believes that gaining control means total abstinence from forbidden foods. A perceived rejection or minor disappointment may often trigger the individual to eat a food that is considered forbidden. This is viewed as loss of control and a binge episode ensues (Boskind-White & White, 1983).

**Gender.** The bulimic client is typically female (Boskind-White & White, 1983; Herzog, 1982). Many authors report no males (Ben-Tovim et al., 1979; Casper et al., 1980; Fairburn, 1980; Guiora, 1967; Wermuth et al., 1977); however, a few males have been reported in the literature (Herzog, 1982; Russell, 1979; Stangler & Printz, 1980).

**Race.** In the studies that reported the race of the subjects (Herzog, 1982; Pyle et al., 1981), all bulimics were white.

**Age.** The mean age of the bulimics reported in the literature vary from 20.2 years (Casper et al., 1980) to 25.3 years (Herzog, 1982), with age ranges from 11 to 51 (Boskind-Lodahl & White, 1978; Boskind-White & White, 1983; Fairburn & Cooper, 1982; Guiora, 1967; Herzog, 1982; Pyle et al., 1981; Stangler & Printz, 1980; Wermuth et al., 1977).

**Age of onset.** Although age 18 is the most commonly cited age of onset (Fairburn & Cooper, 1982; Pyle et al., 1981; Russell, 1979),
other investigators have reported the mean age of onset as young as 15 years (Boskind-Lodahl & White, 1978). The onset of vomiting does not generally begin at the same time as binge eating. Fairburn and Cooper (1982) reported that vomiting usually began one year after binging was initiated, while Russell (1979) reported a three-year delay.

Marital status. In the studies that reported marital status, the majority of the bulimic clients were single (Fairburn, 1980; Guiora, 1967; Herzog, 1982; Linden, 1980; Mitchell, Pyle, & Miner, 1982; Moskovitz & Lingao, 1979; Pyle et al., 1981). Few bulimics initially start binging and purging while married. However, if an individual was bulimic prior to marriage, the behavior generally continues after the marriage. Some individuals report initiating binging and purging when separated or divorced (Boskind-White & White, 1983).

Frequency of binging and purging. The majority of bulimics engage in binge eating on a daily basis followed by vomiting at least several times a week (Pyle et al., 1981; White & Boskind-White, 1981). However, the reported frequency of binge-purge episodes varies with the individual (Russell, 1979). Only one study (Fairburn & Cooper, 1982) found that the frequency of vomiting tended to be higher than that of binge eating. The reported frequency of vomiting ranges from less than once per month (Halmi, Falk, & Schwartz, 1981) to as high as 30 times daily (Fairburn, 1981). The reported frequency of binge eating episodes varies as well. Some bulimics are able to give up binging.
for three to four months (Boskind-White & White, 1983), while others report binging as often as three to thirty times daily (Fairburn, 1980, 1981).

Duration. Bulimia appears to be a chronic disorder (Herzog, 1982; Palmer, 1979). Pyle et al. (1981) reported the median duration of bulimic symptoms to be four years, with a range of one to 26 years. This appears to be consistent with the findings of other investigators (Boskind-Lodahl & White, 1978; Fairburn, 1980; Fairburn & Cooper, 1982; White & Boskind-White, 1981).

Medical complications. A number of medical complications resulting from bulimia have been reported in the literature. Most complications are due to repeated vomiting (Russell, 1979), although gastric dilation has been reported in two individuals as a direct result of binging (Mitchell et al., 1982; Pyle et al., 1981). Hypoglycemia has recently been implicated as a result of binging (Boskind-White & White, 1983) but this area needs further investigation.

Chronic vomiting can erode dental enamel due to the hydrochloric acid content of vomit. This can result in gum disease, cavities, or tooth loss (Boskind-White & White, 1983). Other investigators have also identified dental hygiene problems in their clients (Herzog, 1982; Pyle et al., 1981). Repeated vomiting has led to sore throats (Fairburn, 1981; Pyle et al., 1981), parotid (salivary) gland inflammation (Boskind-White & White, 1983; Herzog, 1982; Pyle et al., 1981; Russell, 1979), and hiatal hernias (Boskind-White & White, 1983). One
case of reflux oesophagitis due to chronic vomiting has been reported (Fairburn, 1980). Both purging and vomiting may result in hypokalemia (potassium deficiency) due to the loss of body fluids and electrolytes (Boskind-White & White, 1983; Fairburn, 1980; Herzog, 1982; Russell, 1979). Although Pyle et al. (1981) did not find hypokalemia in their subjects, they reported that most complained of weakness and lethargy. Chronic use of laxatives to purge may result in loss of intestinal muscle tone which may lead to severe constipation (Boskind-White & White, 1983).

Menstrual irregularities are frequently reported among bulimics (Fairburn & Cooper, 1982; Pyle et al., 1981); however, the long-term effects on the woman's reproductive system and fertility remain unknown at this time (Boskind-White & White, 1983; Schlesier-Stropp, 1984).

Weight history. The premorbid weight of the bulimic individual varies. Herzog (1982) found that most of his patients had a history of being of average weight or slightly overweight. Of 26 bulimics, Wermuth et al. (1977) found ten subjects of normal weight, of whom four were overweight (10-20% overweight), five were obese (more than 20% overweight), and one was 20% underweight. Pyle et al. (1981) reported that the majority of his subjects weighed below the median weight for their height and five of the 34 had a history of anorexia nervosa. Five additional patients, since age 18, had had a period of at least 15% loss in body weight.
Fairburn (1981) found that all of his patients were within 15% of the average weight for their height and age. In a study of 499 bulimics, Fairburn and Cooper (1982) reported that most of the individuals had a history of being overweight and fewer than half ever had a sufficiently low weight to fulfill the diagnostic criteria for anorexia nervosa. Weight fluctuations in individuals who vomit tend to be dramatic, often ranging from 20 to 25 pounds (Boskind-White & White, 1983; Pyle et al., 1981).

**Family history.** Pyle et al (1981) report that most of the 34 bulimics came from intact families. The median number of siblings was five, indicating that these families tended to be large. Alcoholism was reported by 17 of the individuals, 23 reported obesity, and 16 reported depression in at least one first degree family member. These findings are consistent with Herzog's (1982) study. Moreover, he also noted that a family history of death or chronic physical illness in at least one parent was reported by 50% of his subjects. This finding has not been corroborated by Pyle et al. (1981). Crisp, Harding, and McGuinness (1974) found the fathers of vomiters to be significantly more obsessional than the fathers of non-vomiters. They suggested that the "family psychopathology and morbidity is currently displaced into the patient" (p. 172).

**Psychological Adjustment**

A salient feature of bulimia is the individual's morbid fear of weight gain (Casper et al., 1980; Fairburn & Cooper, 1982; Guiora,
The bulimic individual exhibits a distorted body image (Boskind-Lodahl & White, 1978; Boskind-White & White, 1983; Fairburn & Cooper, 1982; Pyle et al., 1981). Thirty-one of the 34 patients in Pyle et al. (1981) study indicated a desired weight less than their weight at the time of evaluation. Furthermore, most chose an ideal weight that was very similar to their desired weight even though this would be too thin for their height and frame. The body image distortion may be severe, as indicated in Fairburn and Cooper's (1982) study in which 63.2% of the bulimic women expressed a desired weight which was less than 85% of matched population mean weight. In an attempt to reach or maintain their desired weight, the bulimic becomes preoccupied with thoughts of food and eating (Boskind-White & White, 1983; Fairburn & Cooper, 1982; Herzog, 1982; Palmer, 1979; Pyle et al., 1981; Rosen & Leitenberg, 1982; Russell, 1979; Wermuth et al., 1977) as well as thoughts of dieting (Boskind-White & White, 1983; Pyle et al., 1981). This preoccupation with food can lead to impaired concentration and interruption of everyday activities. Moreover, the individual's interests become constricted and their interpersonal relationships deteriorate (Boskind-White & White, 1983; Herzog, 1982; Pyle et al., 1981).

While some bulimics report satisfactory sexual relationships (Herzog, 1982; Russell, 1979), many individuals report decreased sexual interest and satisfaction following the onset of bulimia (Pyle et al., 1981). Fairburn (1980) reported that sexual difficulties are common in bulimics.
The great quantities of food consumed during a binge episode may lead to financial difficulties (Pyle et al., 1981) and stealing behavior seems to be a relatively common characteristic (Boskind-White & White, 1983; Casper et al., 1980; Garfinkel et al., 1980; Pyle et al., 1981). The bulimic may become adept at lying in an effort to hide his/her behavior (Boskind-White & White, 1983).

Bulimics fear losing control over eating (Fairburn, 1981; Fairburn & Cooper, 1982; Palmer, 1979) and feel powerless when faced with the urge to eat (Boskind-White & White, 1983). Impulsivity is a commonly noted personality characteristic (Casper et al., 1980; Pyle et al., 1981). After individuals have succumbed to binging, they report feelings of anxiety, shame, guilt, and worthlessness (Boskind-White & White, 1983; Herzog, 1982; Pyle et al., 1981; Rau & Green, 1975; Wermuth et al., 1977; White & Boskind-White, 1981). Depressive symptoms are common among bulimics (Ben-Tovim et al., 1979; Fairburn & Cooper, 1982; Herzog, 1982; Pyle et al., 1981; Russell, 1979), as well as high levels of anxiety (Casper et al., 1980; Fairburn & Cooper, 1982; Palmer, 1979; Pyle et al., 1981; Rosen & Leitenberg, 1982). They may display marked emotional lability (Fairburn, 1980; Garfinkel et al., 1980). The bulimic individuals may be outgoing (Casper et al., 1980; Herzog, 1982) and may be described as over-achievers (Boskind-White & White, 1983). They are usually aware that they have an eating disorder and are distressed by their symptoms (Boskind-White & White, 1983; Fairburn & Cooper, 1982; Pyle et al.,
1981). One author (Pyle et al., 1981) found a high rate of alcohol or amphetamine abuse among bulimics. This is consistent with Garfinkel et al. (1980) findings of higher drug use among vomiting anorectics.

**Differential Aspects of the Anorectic and Bulimic Individual**

Garfinkel and Garner (1984) found several differences between restricting and bulimic anorexics. First, bulimic women were more often premorbidly obese. Their mothers also tended to be obese. This finding is supported by Beumont (1977) and Russell (1979), although Casper et al. (1980) found no significant premorbid weight differences. Second, in contrast to restricters, bulimics more frequently misused drugs and alcohol and displayed a greater tendency to steal. The high prevalence of kleptomania is consistent with the findings of other investigators (Casper et al., 1980; Halmi, 1983; Hudson, Pope, Jonas, & Yurgelun-Todd, 1983; Pyle et al., 1981). Suicide attempts or acts of self-mutilation are more common among bulimics. In addition, bulimic clients were less socially isolated and appeared to be more sexually active. This is supported by Beumont, George, and Smart (1976). Finally, bulimic anorexics displayed "greater psychopathology characterized by body image disturbances, subjective sense of feeling out of control, and depression" (Garfinkel & Garner, 1984, p. 40).

Based on Rorschach responses, Selvini-Palazzoli (1974) concluded that bulimics displayed greater thought and communication disorders than restricting anorexics. She also suggested that within the
family "psychotic confusion, violence, and a complete breakdown of family communication" precipitate episodes of bulimia (p. 205).

Casper et al. (1980) found that bulimic individuals' responses on the MMPI indicated more significant psychopathology. Specifically, the subscales for schizophrenia, depression, psychopathic deviance, paranoia, and psychasthenia were elevated. These findings are consistent with the bulimics' reported impulsivity, depression, anxiety, and compulsivity, as well as their rumination and feelings of alienation (Pyle et al., 1981).

**Future Directions for Research**

The topic of bulimia has recently garnered consideration in the professional literature as well as in the media. In spite of this flurry of attention, "there is a very small and fragmented body of literature specifically discussing bulimia and related entities" (Hamilton, Gelwick, & Meade, 1984). Research has typically compared anorectics and bulimics, but only one study compared bulimics to binge-eaters and controls (Katzman & Wolchik, 1984). Investigations of family variables have been sparse and also restricted to the comparison of bulimics and anorexics. No investigation has explored family variables in binge-eaters and controls. Even the prevalence of bulimia in the general population is still unknown. Another aspect of this problem is differentiating clinical cases of bulimia from binge-eaters. As many as 78 percent (Ondercin, 1979) and 85 percent (Clement & Hawkins, 1980) of college women have reported occasional
binge episodes. Because bulimia may become a chronic, intractable pattern relatively quickly (Russell, 1979), the need to predict who is at risk becomes salient (Hamilton, Gelwick, & Meade, 1984). Furthermore, Hamilton, Gelwick, and Meade (1984) stress "the need to understand and differentiate among the nonclinical groups of women reporting problems with binge eating and its concomitants, in order to assess the need for preventive intervention (to prevent worsening of bulimic behaviors) or developmental intervention (with women who may not become clinical cases but whose eating concerns interfere with their full enjoyment of life and personal development)" (p. 16).

The present investigation will address these issues. From the undergraduate college population at the University of Montana, data will be gathered on prevalence rates of binge eating and bulimia. Demographic variables of controls compared to binge-eaters and bulimics will be explored. Family variables, level of depression, and adherence to traditional sex roles in these groups will also be investigated.

**Hypotheses**

The proposed investigation is exploratory in nature. Research comparing bulimics to binge-eaters and controls is so new that the following hypotheses must be considered tentative.

It is expected that the majority of subjects reporting binge eating will be female (Boskind-White & White, 1983; Casper et al., 1980; Herzog, 1982; Pyle et al., 1981). Based on prior research
and the subject pool utilized in this investigation, it is further expected that the binge-eaters will be white (Herzog, 1982; Pyle et al., 1981) and not married (Fairburn, 1980; Herzog, 1982; Linden, 1980; Moskovitz & Lingao, 1979; Pyle et al., 1981). Relative to controls, binge-eaters will come from large families with reported obesity in at least one first degree family member (Pyle et al., 1981). The binge-eaters will tend to be of average weight or slightly overweight (Herzog, 1982) but will choose a desired weight less than that of controls (Fairburn & Cooper, 1982).

Bulimics will exhibit more depression (Ben-Tovim et al., 1979; Fairburn & Cooper, 1982; Herzog, 1982; Pyle et al., 1981; Russell, 1979) and will adhere to more traditional sex roles (Boskind-Lodahl, 1976; Boskind-White & White, 1983; Orleans & Barnett, 1984) relative to controls. There will also be evidence of greater family pathology in the bulimics’ families (Selvini-Palazzoli, 1974) when compared to the families of controls. If the variables of depression, family pathology, and sex role beliefs are conceptualized as a continuum with bulimics and controls falling on opposite ends, then binge-eaters may be expected to fall somewhere near the middle of the continuum.
CHAPTER II

METHODS

Design

This study employed a static-group comparison design (Campbell & Stanley, 1963). Subjects were divided into three groups on the basis of their scores on the Bulimic Test (BULIT). Subjects scoring 102 or above were classified bulimic, subjects scoring 88 to 101 were classified as binge-eaters, and those subjects scoring below 88 were classified as normal.

Subjects

Subjects were 251 male and female undergraduate volunteers enrolled in the Introductory Psychology courses at the University of Montana. Subjects received experimental credit in return for their participation.

Materials

Each subject received a booklet containing the following materials and questionnaires:

1. Consent form (Appendix A).
2. Demographic data sheet (Appendix B).
3. The McMaster Family Assessment Device (Epstein, Baldwin & Bishop, 1983) was employed as a screening instrument to identify problem areas in family functioning (Appendix C). This instrument describes transactional patterns among family
members and organizational and structural properties of the family group that differentiate between healthy and unhealthy families. The Family Assessment Device (FAD) identifies six dimensions of family functioning. These include: (1) problem solving, (2) communication, (3) roles, (4) affective responsiveness, (5) behavior control, and (6) affective involvement.

In addition, the FAD includes a General Functioning scale which assesses the overall health or pathology of the family. In a study of 316 families, Epstein, Baldwin, and Bishop (1983) reported that the FAD significantly predicted whether the family came from a clinical or nonclinical group.

4. The BULIT (Smith & Thelen, 1984) was administered as a measure by which to identify individuals with symptoms of bulimia (Appendix D). This scale was developed to (a) differentiate between individuals with no eating problems and those who exhibit the bulimia syndrome, (b) distinguish between subgroups of bulimics, (c) differentiate between individuals with bulimic symptoms and individuals with symptoms of eating disorders, and (d) provide these distinctions for individuals who have sought treatment as well as for those who have not. Overall test-retest reliability was found to be .87 in a non-clinical population and the scale demonstrated significant predictive validity between the subjects that raters judged to be normal and bulimic.
5. The Sex-Role Egalitarianism Scale (SRES) (Beere, King, Beere, & King, 1984) was utilized to measure the subject's sex-role attitudes (Appendix E). This instrument considers judgments of women and men in their role behaviors in five domains: (1) marital roles, (b) parental roles, (c) employment roles, (d) social-interpersonal-heterosexual roles, and (e) educational roles. For the purpose of this investigation only marital, parental, and social-interpersonal-heterosexual role categories were employed. Parallel forms (Forms B and K) have been developed and demonstrate adequate equivalence coefficients for the individual domains ($r = .860$) and an overall correlation of .93. Internal consistency reliability on each form was .97 and coefficients of stability were .88 and .91 for the total score. Relatively low correlations were found between a measure of social desirability and the SRES, indicating that this instrument is not measuring a general tendency to respond in a socially desirable manner.

6. The Hawkins and Clement (1980) Binge Scale Questionnaire (Appendix F) was administered as a measure of the behavioral and attitudinal parameters of bulimia. This self-report measure of binge-eating tendencies was developed based on two assumptions. First, there are no accepted criteria for determining either what amount of calories must be ingested or what duration of eating is necessary in order to be considered a binge episode. Second, DSM-III (American Psychiatric Association, 1980) states that the individual
is aware that the eating pattern is abnormal and is fearful of not being able to stop eating voluntarily. Therefore, the best measure of binge eating was thought to be the individual's self-report of uncontrolled, excessive eating (Hawkins & Clement, 1980). Hawkins & Clement (1980) reported one month test-retest reliability of +.88. Clinic-treated overweight women reported more severe binge eating tendencies than a matched college classroom sample. Furthermore, females reported more severe binge eating tendencies than males, overweight subjects obtained significantly higher Binge Scale scores than normal weight subjects, and individuals who reported an onset of weight concern prior to age 12 yielded higher Binge Scale scores than those with a later onset.

7. The Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) assessed the subject's level of depression (Appendix G). Clients' scores on this inventory have been demonstrated to be highly correlated with clinical ratings of depressed individuals (Beck, 1967).

Procedure

The measuring instruments were administered to the subjects in a large group in each of the Introductory Psychology classes during Spring Quarter, 1985.

Subjects were read the following introduction:

You have the opportunity to participate in a research project
investigating students' beliefs, attitudes, and behavior on several dimensions related to life experiences. In a few minutes, you will receive a booklet which contains a number of questions for you to answer. Instructions on how to complete the questions are also included. Participation in this project is voluntary. If you agree to participate, you will receive two (2) experimental credits. To insure confidentiality, all information will be given anonymously; therefore, do not put your name on the booklet. Please answer all questions as honestly as you can. It should take you about 35 minutes to finish. When you have completed all the items, turn the booklet over and wait until everyone is finished. Are there any questions?

When all of the subjects had completed the questionnaires, the subjects were debriefed, thanked for their participation, and excused.
CHAPTER III

RESULTS

The group categorization (bulimic, binge-eaters, controls) and demographic variables of the total sample are reported in Table 2. As indicated, 7% of the subjects met the criteria for bulimia, 7% met the criteria for binge-eaters, and the remaining 86% were categorized as normal. Only three male subjects were classified as binge-eaters, no males were classified as bulimic, and 95 males were classified as controls. Because of the disproportionate number of males in the control group, all male subjects were discarded from the data analysis. The group categorization and demographic variables of the sample used in the data analysis are also reported in Table 2. The average age of this sample was 21 years (x=21.488). Thirteen percent (13%) of the female subjects were classified as bulimic and 10% were classified as binge-eaters.

A one-way multivariate analysis of variance was used to compare the three groups on the standardized measures of depression, sex-roles, and family health/pathology as well as on a measure of current body weight percentage and desired body weight percentage. Body weight percentage was calculated as a deviation percentage from the desirable weight for females with a medium frame (Hawkins & Clement, 1980: Metropolitan Life Insurance Company, 1985). Table 3 presents the group means, standard deviations, and F ratios for these measures. These
Table 2

Group Categorization and Demographic Variables

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<th>Data Analysis Sample (n=129)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Bulimic</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>Binge-eater</td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>Control</td>
<td>196</td>
<td>86</td>
</tr>
<tr>
<td>Gender: Male</td>
<td>98</td>
<td>43</td>
</tr>
<tr>
<td>Gender: Female</td>
<td>129</td>
<td>57</td>
</tr>
<tr>
<td>Marital Status: Single</td>
<td>191</td>
<td>84</td>
</tr>
<tr>
<td>Marital Status: Married</td>
<td>24</td>
<td>11</td>
</tr>
<tr>
<td>Marital Status: Sep/Div/Widowed</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Race: American Indian</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Race: Caucasian</td>
<td>211</td>
<td>93</td>
</tr>
<tr>
<td>Race: Oriental</td>
<td>2</td>
<td>.9</td>
</tr>
<tr>
<td>Race: Black</td>
<td>1</td>
<td>.4</td>
</tr>
<tr>
<td>Race: Spanish Speaking</td>
<td>1</td>
<td>.4</td>
</tr>
<tr>
<td>Race: Other</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Year in School: Freshman</td>
<td>137</td>
<td>60</td>
</tr>
<tr>
<td>Year in School: Sophomore</td>
<td>61</td>
<td>27</td>
</tr>
<tr>
<td>Year in School: Junior</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>Year in School: Senior</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Year in School: Graduate</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Twenty-four subjects were discarded from the original sample (n=251) for lack of data.
### Table 3

Means, Standard Deviations, and F Values of Personality and Behavioral Characteristics for Women in the Bulimic, Binge-eaters, and Control Groups

<table>
<thead>
<tr>
<th></th>
<th>Bulimic (n=17)</th>
<th>Binge-eater (n=13)</th>
<th>Control (n=99)</th>
<th>F(2, 126)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Binge Scale</td>
<td>14.76&lt;sub&gt;a&lt;/sub&gt;</td>
<td>4.85</td>
<td>12.23&lt;sub&gt;a&lt;/sub&gt;</td>
<td>1.88</td>
</tr>
<tr>
<td>Depression</td>
<td>11.71&lt;sub&gt;a&lt;/sub&gt;</td>
<td>8.50</td>
<td>8.62</td>
<td>4.65</td>
</tr>
<tr>
<td>Sex Roles (Total)</td>
<td>227.1</td>
<td>23.90</td>
<td>242.10</td>
<td>19.10</td>
</tr>
<tr>
<td>Marital</td>
<td>78.41</td>
<td>9.47</td>
<td>83.69</td>
<td>6.51</td>
</tr>
<tr>
<td>Parental</td>
<td>76.00</td>
<td>8.96</td>
<td>80.54</td>
<td>7.20</td>
</tr>
<tr>
<td>Social-Interpersonal-Heterosexual</td>
<td>72.72</td>
<td>8.53</td>
<td>77.85</td>
<td>7.0</td>
</tr>
<tr>
<td>Family Functioning:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem Solving</td>
<td>2.205</td>
<td>.315</td>
<td>2.178</td>
<td>.369</td>
</tr>
<tr>
<td>Communication</td>
<td>2.576&lt;sub&gt;a&lt;/sub&gt;</td>
<td>.432</td>
<td>2.240</td>
<td>.413</td>
</tr>
<tr>
<td>Roles</td>
<td>2.406&lt;sub&gt;ab&lt;/sub&gt;</td>
<td>.529</td>
<td>2.084&lt;sub&gt;b&lt;/sub&gt;</td>
<td>.428</td>
</tr>
<tr>
<td>Affective Responsiveness</td>
<td>2.452</td>
<td>.513</td>
<td>2.299</td>
<td>.713</td>
</tr>
<tr>
<td>Affective Involvement</td>
<td>2.319</td>
<td>.460</td>
<td>2.296</td>
<td>.510</td>
</tr>
<tr>
<td>Behavior Control</td>
<td>2.098</td>
<td>.456</td>
<td>2.001</td>
<td>.374</td>
</tr>
<tr>
<td>General Functioning</td>
<td>2.206</td>
<td>.452</td>
<td>2.012</td>
<td>.574</td>
</tr>
<tr>
<td>Body Weight %</td>
<td>97.9</td>
<td>13.9</td>
<td>100.2</td>
<td>21.8</td>
</tr>
<tr>
<td>Desired Body Weight %</td>
<td>83.47</td>
<td>7.05</td>
<td>84.15</td>
<td>9.46</td>
</tr>
</tbody>
</table>

Note: Means with common subscripts differ significantly at the .05 level.
Weight % = 100% ± deviation % from ideal weight.
* p<.05
results reveal significant differences were found in the Binge Scale, $F(2,126)=150.97, p<.05$, the Beck Depression Inventory, $F(2,126)=15.35, p<.05$, and the following subscales of the Family Assessment Device (FAD): (1) Communication, $F(2,126)=6.11, p<.05$; (2) Roles, $F(2,126)=4.76, p<.05$; and (3) Affective Responsiveness, $F(2,126)=3.21, p<.05$.

Multiple comparisons were computed using the Newman-Keuls procedure (see Table 3). These comparisons indicate that the bulimic group scored significantly higher than the binge-eaters and controls on the Binge Scale and the Roles subscale of the FAD (all $p<.05$). In addition, bulimics reported significantly more depression and dysfunction on the Communication subscale of the FAD than the controls ($p<.05$). Binge-eaters scored significantly higher than the controls only on the Binge Scale ($p<.05$). Although an overall significant effect was obtained on the Affective Responsiveness subscale of the FAD, the multiple comparison yielded no significant group differences. When computing the df for the Newman-Keuls procedure, the group size of the binge-eaters ($n=17$) was utilized. This resulted in a conservative measure of significance which reduced the probability of a Type I error. Thus, it became more difficult to obtain a significant difference between the group means.

The personal data of the subjects in the three groups are reported in Table 4. A Chi-square analysis was computed on the number of siblings [$x^2(2)=1.05, p>.05$], year in school [$x^2(2)=.39, p>.05$], and family members overweight [$x^2(2)=.61, p>.05$]. No significant differences were found between the groups. It was not possible to compute a
Table 4
Comparisons of Personal Data across Bulimic, Binge-eater, and Control Groups

<table>
<thead>
<tr>
<th></th>
<th>Bulimic (n=17)</th>
<th>Binge-eater (n=13)</th>
<th>Control (n=11)</th>
<th>(x^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital Status:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>17</td>
<td>12</td>
<td>81</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>0</td>
<td>1</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Separated/Divorced/Widowed</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Race:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>14</td>
<td>13</td>
<td>93</td>
<td></td>
</tr>
<tr>
<td>Oriental</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Spanish Speaking</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Year in School:*</td>
<td></td>
<td></td>
<td></td>
<td>.39</td>
</tr>
<tr>
<td>Freshman</td>
<td>11</td>
<td>7</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td>6</td>
<td>3</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Graduate</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Number of Siblings:*</td>
<td></td>
<td></td>
<td></td>
<td>1.05</td>
</tr>
<tr>
<td>0-2</td>
<td>9</td>
<td>5</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>3-4</td>
<td>5</td>
<td>4</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>5 or more</td>
<td>3</td>
<td>4</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>One or more First Degree Family Member Overweight</td>
<td>14</td>
<td>11</td>
<td>76</td>
<td>.61</td>
</tr>
<tr>
<td>Previous Treatment for an Eating Disorder:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anorexia</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Bulimia</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

* In order to complete this analysis, it was necessary to collapse the categories. Number of siblings was categorized in two groups: (1) 0-2 siblings and (2) 3 or more siblings. Year in school was categorized in two groups: (1) Freshman and (2) Sophomore or above.
Chi-square analysis on the remaining variables (marital status, race, and previous treatment for an eating disorder) because the conditions necessary to approximate outcome probabilities based on the Chi-squared distribution were not met. Even when the categories of these variables were combined, more than 25% of the expected values were less than 5.

Finally, Pearson correlation coefficients were computed on the measures of binge-eating, depression, sex-role egalitarianism, and general family functioning (see Table 5). The only significant correlation was found in the relationship between the BULIT and the Binge Scale, $r(11)=.893$, $p<.05$. The relationship between the BULIT and the Binge Scale is consistent with the findings of Smith and Thelen (1984) and suggests that these scales are based on similar constructs.

Table 5
Pearson Correlation Coefficients for the Standardized Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>BULIT</th>
<th>Binge</th>
<th>Beck</th>
<th>SRES</th>
<th>FAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>BULIT</td>
<td>--</td>
<td>.893*</td>
<td>.50</td>
<td>-.107</td>
<td>.222</td>
</tr>
<tr>
<td>Binge</td>
<td>.893*</td>
<td>--</td>
<td>.50</td>
<td>-.07</td>
<td>.224</td>
</tr>
<tr>
<td>Beck</td>
<td>.50</td>
<td>.50</td>
<td>--</td>
<td>.13</td>
<td>.280</td>
</tr>
<tr>
<td>SRES</td>
<td>-.107</td>
<td>-.07</td>
<td>.13</td>
<td>--</td>
<td>.071</td>
</tr>
<tr>
<td>FAD</td>
<td>.222</td>
<td>.224</td>
<td>.28</td>
<td>.071</td>
<td>--</td>
</tr>
</tbody>
</table>

BULIT: Bulimia Test  
Binge: Binge Scale  
Beck: Beck Depression Inventory  
SRES: Sex-Role Egalitarianism Scale  
FAD: Family Assessment Device, General Functioning Scale  

*p<.05
CHAPTER IV

DISCUSSION

In the present study, 13% of the women in this college population met the criteria for bulimia. This is consistent with the estimated prevalence rates reported by other investigators (Hamilton, Gelwick, & Meade, 1984; Smith & Thelen, 1984). In addition, no males were classified as bulimic and only three males were classified as binge-eaters. This finding has been repeatedly noted by researchers in this area (Boskind-White & White, 1983; Herzog, 1982). Because of the demographic makeup of the population sampled, the majority of the subjects in all three groups were single Caucasians in their first or second year of college. This factor does not allow inferences to be drawn regarding the role of marital status or ethnic/racial background in the development of bulimia. Only seven subjects reported previous treatment for an eating disorder, which suggests that the present investigation was successfully sampling a nonclinical population of bulimic and binge-eaters.

Bulimic and Control Groups

In support of the hypothesized relationship between bulimic and normal individuals, bulimic subjects reported significantly more depression and more dysfunction in the area of family roles and communication. The relationship between bulimia and depression is a well-established finding in the literature (Ben-Tovim et al., 1979;
Fairburn & Cooper, 1982; Herzog, 1982; Katzman & Wolchik, 1984; Pyle et al., 1981), and the relatively high levels of depression are consistent with the DSM-III (American Psychiatric Association, 1980) diagnostic criteria for bulimia.

The relationship between bulimia and family pathology, however, has only been suggested in the literature (Schwartz, Barrett, & Saba, 1985; Selvini-Palazzoli, 1974) but to date has had no empirical support. This study provides a step in that direction. On the FAD, the Roles subscale measures "established patterns of behavior for handling a set of family functions which include provision of resources, providing nurturance and support, supporting personal development, maintaining and managing the family systems and providing adult sexual gratification" (Epstein, Baldwin, & Bishop, 1983, p. 172). Role allocation within the family may be adaptive or maladaptive. An example of a maladaptive role would be the child who becomes a scapegoat and thereby serves the purpose of drawing the attention away from more threatening areas of conflict within a family (Epstein & Bishop, 1981). It may be that the bulimic individual manifests the family's psychopathology as suggested by Crisp, Harding, and McGuinness (1974), or perhaps the bulimic becomes a scapegoat in an effort to protect the family integrity. This would be consistent with one conceptualization of bulimia postulated by Schwartz, Barrett, and Saba (1985). It would be premature at this time to reach a conclusion regarding the bulimic's role function within the family; however, the current finding suggests that
the roles within the bulimic's family are significantly more dysfunctional than within the normal's family.

Communication, as measured by the FAD, is defined as "the exchange of information among family members. The focus is on whether verbal messages are clear with respect to content and direct in the sense that the person spoken to is the person for whom the message is intended" (Epstein et al., 1983, p. 172). The finding that bulimic subjects report more pathology on this scale might suggest that within the bulimic family communication is not direct, clear, and open, but rather that messages become convoluted or are filtered through another family member. It may be the family rule that emotions, either positive or negative, are not expressed and differences of opinion are not discussed. This would require family members to guess at the thoughts, feelings, or needs of other family members. Problems in communication within dysfunctional families have been repeatedly noted by family therapists (Epstein & Bishop, 1981; Skynner, 1981), and the current finding tentatively extends this finding to the family of bulimics.

An overall significant effect was found on the Affective Responsiveness subscale of the FAD. This scale assesses the family member's ability to experience appropriate affect over a wide range of stimuli (Epstein et al., 1983). Although multiple comparisons yielded no significant group differences, the trend was consistent with the previous findings. Specifically, the bulimic group displayed more dysfunction relative to controls. While this must be interpreted cautiously, it appears that a relationship exists between the
Communication and Affective Responsiveness Scales. Epstein et al. (1983) reported a correlation of +.67 between the two scales, and Epstein and Bishop (1981) report that if an individual has difficulty experiencing an emotional response (affective responsiveness), then she/he cannot communicate it. Therefore, one could postulate that, within the family, bulimics have difficulty experiencing a full range of appropriate emotions which results in an inability to communicate those emotions. It must be kept in mind, however, that an inability to communicate emotions effectively does not necessarily imply that the individual is not experiencing the emotion. The relationship between communication and affective responsiveness in the bulimic family requires further investigation and no clear conclusions may be drawn at this time.

The subjects' scores on the remaining subscales of the FAD (Problem Solving, Affective Involvement, Behavior Control, General Functioning) did not support the hypothesis of greater pathology in the families of bulimics relative to controls. The FAD was developed according to the McMaster Model of family functioning. This model identifies a number of dimensions for conceptualizing family behavior. Although there is potential overlap and/or interaction between them, on each dimension a family may range from most effective to most ineffective functioning (Epstein & Bishop, 1981). Therefore, it may be possible that a bulimic's family does not display dysfunctional characteristics in all areas. Rather, the family dysfunction may be limited
to specific dimensions. Three of these dimensions (Roles, Communications, and Affective Responsiveness) have been tentatively identified. Further research is necessary to confirm these findings.

Finally, this study does not confirm that rigid adherence to a traditional feminine stereotype is more characteristic of bulimics relative to controls. Although it has been suggested that bulimia may result from over-acceptance of the feminine role (Boskind-Lodahl, 1976), the present results are consistent with the findings of Katzman and Wolchik (1984) who reported no significant differences between bulimics, binge-eaters, and controls on the Personality Attributes Questionnaire. Perhaps the role of other variables, such as family dysfunction, or a combination of variables, are more important factors in the etiology of bulimia than the role of a stereotypical feminine belief system. It has also been suggested that attempts to conform to an unrealistic cultural standard of physical beauty results in the development of bulimia (Boskind-Lodahl, 1976; Garner, Rockert, Olmsted, Johnson, & Coscina, 1985). However, in the present study there was no difference in the desired weight of bulimics, binge-eaters, and controls. All subjects wanted to weigh less than the suggested weight for their height, which is also consistent with the recent findings of Katzman and Wolchik (1984). In addition, there was no difference between the three groups on their current body weight. Again, it may be postulated that the pursuit of thinness is only one variable which interacts with other variables in an individual's environment and ultimately results in the development of bulimia. It is apparent that
the desire to be thin is not restricted solely to binge-eaters or bulimics. For females, it appears to be a pervasive phenomenon in our society.

Finally, it had been suggested in the literature that bulimics, relative to controls, came from large families with reported obesity in at least one first degree family member (Pyle et al., 1981). This was not supported by the present investigation.

**Binge-eaters vs. Bulimics and Controls**

It was postulated that if the variables of depression, family pathology, and sex-role beliefs were conceptualized as a continuum with bulimics and controls falling on opposite ends, then binge-eaters would fall somewhere near the middle of the continuum and would be significantly different from the other groups. The present data do not support this hypothesis. The binge-eaters scored significantly higher than controls only on the Binge Scale. In addition, the bulimics scored higher than the binge-eaters only on the Binge Scale and the Roles subscale of the FAD. In the only other study which contrasted bulimics, binge-eaters, and controls, Katzman and Wolchik (1984) found that bulimics differed significantly from binge-eaters on standardized measures of dieting concern, self-esteem, need for approval, body attitudes, and depression. They suggested that "bulimia and binge eating reflect two distinct variants in a spectrum of eating disorders" (p. 427). The present investigation does not support this conclusion.
Perhaps the use of different inventories might account for these disparate results; however, the Beck Depression Inventory was used in both studies with inconsistent results. It might also be suggested that the method of classifying subjects as binge-eaters and bulimics differed in the two studies. Katzman and Wolchik (1984) used a questionnaire that contained an operationalized version of the DSM-III (American Psychiatric Association, 1980) criteria for bulimia. Subjects who met all the diagnostic criteria for bulimia were classified as bulimic, while those subjects who reported eight or more episodes of binge eating a month but failed to meet one or more of the other operationalized criteria for bulimia were classified as binge-eaters (Katzman & Wolchik, 1984). In the current study, the BULIT was used to classify subjects. However, this measure is also based on the DSM-III criteria for bulimia and has the advantage of validation studies which were conducted on clinically diagnosed bulimic subjects, anorexic subjects, and 652 college females (Smith & Thelen, 1984). Therefore, the subject classification process in both studies appears relatively similar and makes it difficult to conclude that selection procedures accounted for the inconsistent results.

In regards to the comparison of binge-eaters and controls, the results of the present study and the Katzman and Wolchik (1984) study are similar. Katzman and Wolchik found differences between the two groups only on the Binge Scale and on the measure of dieting preoccupation. The present investigation, which did not measure dieting
preoccupation, found differences between the two groups only on the Binge Scale.

What can be inferred about the relationship between normal subjects, binge-eaters, and bulimics? It is premature at this point to come to any definitive conclusion. In the present study, the characteristics of binge-eaters overlap with both the normal and bulimic groups. This would suggest that binge-eating may be a developmental process that gradually worsens until clinical bulimia is diagnosed. However, as many as 85% (Hamilton, Gelwick, & Meade, 1984) of college women self-report occasional binge eating and there is no evidence to suggest that all of these women will develop bulimia. It may be that while occasional binge eating is a relatively common occurrence among young women, the development of bulimia is dependent on the interaction of a number of other variables. Many factors have been suggested, including low self-esteem, high self-expectations (Katzman & Wolchik, 1984), family pathology (Selvini-Palazzoli, 1974), distorted body image (Boskind-Lodahl & White, 1978), and dieting preoccupation (Boskind-White & White, 1983), to name a few, but the causal role of these variables remains unknown.

An ideal method of investigating the developmental relationship between binge-eating and bulimia would be to initiate longitudinal studies that followed the development of young girls who reported occasional binge eating. Most of the research in the area of bulimia is cross-sectional conducted on college-age women with no follow-up data. This makes it difficult to determine if binge eating is an end
state or one step towards the development of bulimia. Furthermore, most studies rely on self-report data that is subject to biases on the part of the respondent (Kazdin, 1980). In addition to the longitudinal investigations, it would be beneficial to gather information about the subject from other sources such as family, friends, or school officials. This, of course, would be closer to the ideal situation, which is seldom possible to attain in clinical research due to the prohibitive financial costs and time constraints. Yet, without this information, causal inferences cannot be drawn.

Conclusions

The results of the current study must be considered tentative and interpreted cautiously. A potential limitation is the use of the static-group comparison which allows no means of certifying that the groups would have been equivalent had it not been for the binge-eating or bulimic behavior (Campbell & Stanley, 1963). This makes it difficult to determine, for example, if the higher levels of depression in the bulimic group resulted from the bulimia or were a factor in the development of the bulimia. This is also a limitation in the Katzman and Wolchik (1984) study, as well as in many of the investigations in this area. The present study has elucidated the need for more research in the area of bulimia and binge-eating as well as providing initial support for the suggestion of dysfunction in the families of bulimics. The relationship between binge-eating and bulimia remains unclear and further research will be required as we attempt to identify differences between these two groups.
CHAPTER V

SUMMARY

Bulimia, a syndrome characterized by episodes of binge-eating which are terminated by vomiting, laxative use, abdominal pain or sleep, has recently garnered considerable attention in the professional literature as well as in the popular media. Traditionally, it was considered a variant of anorexia nervosa; however, with the publication of DSM-III (American Psychiatric Association, 1980), bulimia was classified as a distinct eating disorder and specific diagnostic criteria were delineated. It is suggested that the incidence of bulimia is widespread, with estimates ranging from 3.8% of college student psychiatric referrals (Stangl & Printz, 1980) to 8% of the total female undergraduate population (Hamilton, Gelwick, & Meade, 1984).

The majority of research in this area has focused on anorectics who vomited to control their weight. Only one study has compared bulimics to binge-eaters and controls (Katzman & Wolchik, 1984) and no investigation explored family variables in bulimics or binge-eaters. The present study assessed levels of depression, family, and behavioral characteristics in 129 college women. These subjects were classified as bulimics, binge-eaters, and controls on the basis of their scores on the BULIT (Smith & Thelen, 1984). Thirteen percent (13%) of the women met the criteria for bulimia, and 10% met the criteria for binge-eaters.
Relative to controls, bulimics reported significantly more depression and more family dysfunction on the Communication and Roles subscales of the FAD. This provides initial support for the suggestion that family pathology is a factor in the bulimic's environment. Binge-eaters scored significantly higher than controls only on the Binge Scale, and bulimics scored higher than binge-eaters only on the Binge Scale and one subscale (Roles) of the FAD. These results are inconsistent with the recent study by Katzman and Wolchik (1984) which found several significant differences between binge-eaters and bulimics. It may be that binge eating represents a developmental process leading to bulimia but substantiation of this hypothesis will require further research.
REFERENCES


APPENDIX A

I consent to serve as a subject in this research investigation.

The nature and general purpose of this experiment have been explained to me by the experimenter. Namely, I have been informed that I will be answering written questions regarding my beliefs, attitudes, or behavior on several dimensions associated with my life's experiences. I will respond anonymously to the questions. I understand that I may terminate my services as a subject in this research at any time I so desire, and still receive a full one hour of experimental credit.

I understand that my answers to this survey will be used only for scientific research purposes without identification of individual participants. I further realize that reasonable safeguards (such as making psychological service phone numbers available, and informing me of the nature of the study after my participation) have been taken to minimize both the known and the potential but unknown risks.

SUBJECT_____________________________________ WITNESS_____________________

DATE________________________
APPENDIX B

AGE__________ SEX: MALE_______ FEMALE_________

MARITAL STATUS:
    SINGLE_____ MARRIED_____ SEPARATED/DIVORCED/WIDOWED_____

RACIAL-ETHNIC BACKGROUND:
    AMERICAN INDIAN______ CAUCASIAN______ ORIENTAL_____
    BLACK______ SPANISH-SPEAKING______ OTHER (please specify)_____

YEAR IN SCHOOL:
    FRESHMAN_____ SOPHOMORE_____ JUNIOR_____
    SENIOR_____ GRADUATE_____

HEIGHT (with no shoes): FEET_____ INCHES_____

WEIGHT:______ WEIGHT 1 YEAR AGO:______ DESIRED WEIGHT:______

SIBLINGS: NUMBER OF BROTHERS:______ NUMBER OF SISTERS:______

IS (OR WAS) A MEMBER OF YOUR FAMILY OVERWEIGHT (APPROXIMATELY 15 OR
MORE POUNDS ABOVE THEIR IDEAL WEIGHT)?
    MOTHER______ FATHER_____ BROTHER_____ SISTER_____

HAVE YOU EVER BEEN TREATED FOR EITHER OF THE FOLLOWING EATING
DISORDERS?
    ANOREXIA: YES____ NO____ BULIMIA: YES____ NO____
APPENDIX C

INSTRUCTIONS: The following are a number of statements about families. Please read each statement carefully, and decide how well it describes your own family. You should answer according to how you see your family (If you are married, please respond according to how you see your family of origin). For each statement there are four (4) possible responses:

Strongly Agree (SA) Circle SA if you feel that the statement describes your family very accurately.
Agree (A) Circle A if you feel that the statement describes your family for the most part.
Disagree (D) Circle D if you feel that the statement does not describe your family for the most part.
Strongly Disagree (SD) Circle SD if you feel that the statement does not describe your family at all.

Try not to spend too much time thinking about each statement, but respond as quickly and as honestly as you can. If you have trouble with one, answer with your first reaction. Please be sure to answer every statement and mark all your answers in the space provided below each statement.

1. Planning family activities is difficult because we misunderstand each other.
   SA A D SD

2. We resolve most everyday problems around the house.
   SA A D SD

3. When someone is upset the others know why.
   SA A D SD

4. When you ask someone to do something, you have to check that they did it.
   SA A D SD

5. If someone is in trouble, the others become too involved.
   SA A D SD

6. In times of crisis we can turn to each other for support.
   SA A D SD
Appendix C (continued)

7. We don't know what to do when an emergency comes up.
   SA     A     D     SD

8. We sometimes run out of things that we need.
   SA     A     D     SD

9. We are reluctant to show our affection for each other.
   SA     A     D     SD

10. We make sure members meet their family responsibilities.
    SA     A     D     SD

11. We cannot talk to each other about the sadness we feel.
    SA     A     D     SD

12. We usually act on our decisions regarding problems.
    SA     A     D     SD

13. You only get the interest of others when something is important to them.
    SA     A     D     SD

14. You can't tell how a person is feeling from what they are saying.
    SA     A     D     SD

15. Family tasks don't get spread around enough.
    SA     A     D     SD

16. Individuals are accepted for what they are.
    SA     A     D     SD

17. You can easily get away with breaking the rules.
    SA     A     D     SD

18. People come right out and say things instead of hinting at them.
    SA     A     D     SD

19. Some of us just don't respond emotionally.
    SA     A     D     SD
Appendix C (continued)

20. We know what to do in an emergency.
   SA  A  D  SD

21. We avoid discussing our fears and concerns.
   SA  A  D  SD

22. It is difficult to talk to each other about tender feelings.
   SA  A  D  SD

23. We have trouble meeting our bills.
   SA  A  D  SD

24. After our family tries to solve a problem, we usually discuss whether it worked or not.
   SA  A  D  SD

25. We are too self-centered.
   SA  A  D  SD

26. We can express feelings to each other.
   SA  A  D  SD

27. We have no clear expectations about toilet habits.
   SA  A  D  SD

28. We do not show our love for each other.
   SA  A  D  SD

29. We talk to people directly rather than through go-betweens.
   SA  A  D  SD

30. Each of us has particular duties and responsibilities.
   SA  A  D  SD

31. There are lots of bad feelings in the family.
   SA  A  D  SD

32. We have rules about hitting people.
   SA  A  D  SD
Appendix C (continued)

33. We get involved with each other only when something interests us.
   SA   A   D   SD

34. There's little time to explore personal interests.
   SA   A   D   SD

35. We often don't say what we mean.
   SA   A   D   SD

36. We feel accepted for what we are.
   SA   A   D   SD

37. We show interest in each other when we can get something out of it personally.
   SA   A   D   SD

38. We resolve most emotional upsets that come up.
   SA   A   D   SD

39. Tenderness takes second place to other things in our family.
   SA   A   D   SD

40. We discuss who is to do household jobs.
   SA   A   D   SD

41. Making decisions is a problem for our family.
   SA   A   D   SD

42. Our family shows interest in each other only when they can get something out of it.
   SA   A   D   SD

43. We are frank with each other.
   SA   A   D   SD

44. We don't hold to any rules or standards.
   SA   A   D   SD

45. If people are asked to do something, they need reminding.
   SA   A   D   SD
Appendix C (continued)

46. We are able to make decisions about how to solve problems.
   SA  A  D  SD

47. If the rules are broken, we don't know what to expect.
   SA  A  D  SD

48. Anything goes in our family.
   SA  A  D  SD

49. We express tenderness.
   SA  A  D  SD

50. We confront problems involving feelings.
   SA  A  D  SD

51. We don't get along well together.
   SA  A  D  SD

52. We don't talk to each other when we are angry.
   SA  A  D  SD

53. We are generally dissatisfied with the family duties assigned to us.
   SA  A  D  SD

54. Even though we mean well, we intrude too much into each others lives.
   SA  A  D  SD

55. There are rules about dangerous situations.
   SA  A  D  SD

56. We confide in each other.
   SA  A  D  SD

57. We cry openly.
   SA  A  D  SD

58. We don't have reasonable transport.
   SA  A  D  SD

59. When we don't like what someone has done, we tell them.
   SA  A  D  SD

60. We try to think of different ways to solve problems.
   SA  A  D  SD
APPENDIX D

INSTRUCTIONS: Answer each question by circling the appropriate letter next to the statement that is most accurate for you. Please respond to each item as honestly as possible.

1. Do you ever eat uncontrollably to the point of stuffing yourself (i.e., going on binges)?
   a. Once a month or less (or never)
   b. 2-3 times a month
   c. Once or twice a week
   d. 3-6 times a week
   e. Once a day or more

2. I am satisfied with my eating patterns.
   a. Agree
   b. Neutral
   c. Disagree a little
   d. Disagree
   e. Disagree strongly

3. Have you ever kept eating until you thought you'd explode?
   a. Practically every time I eat.
   b. Very frequently
   c. Often
   d. Sometimes
   e. Seldom or never

4. Would you presently call yourself a "binge eater"?
   a. Yes, absolutely
   b. Yes
   c. Yes, probably
   d. Yes, possibly
   e. No, probably not

5. I prefer to eat:
   a. At home alone
   b. At home with others
   c. In a public restaurant
   d. At a friend's house
   e. Doesn't matter

6. Do you feel you have control over the amount of food you consume?
   a. Most or all of the time
   b. A lot of the time
   c. Occasionally
   d. Rarely
   e. Never
Appendix D (continued)

7. I use laxatives or suppositories to help control my weight.
   a. Once a day or more
   b. 3-6 times a week
   c. Once or twice a week
   d. 2-3 times a month
   e. Once a month or less (or never)

8. I eat until I feel too tired to continue.
   a. At least once a day
   b. 3-6 times a week
   c. Once or twice a week
   d. 2-3 times a month
   e. Once a month or less (or never)

9. How often do you prefer eating ice cream, milk shakes, or puddings during a binge?
   a. Always
   b. Frequently
   c. Sometimes
   d. Seldom or never
   e. I don't binge

10. How much are you concerned about your eating binges?
    a. I don't binge
    b. Bothers me a little
    c. Moderate concern
    d. Major concern
    e. Probably the biggest concern in my life

11. Most people I know would be amazed if they knew how much food I can consume at one sitting.
    a. Without a doubt
    b. Very probably
    c. Probably
    d. Possibly
    e. No

12. Do you ever eat to the point of feeling sick?
    a. Very frequently
    b. Frequently
    c. Fairly often
    d. Occasionally
    e. Rarely or never
Appendix D (continued)

13. I am afraid to eat anything for fear that I won't be able to stop.
   a. Always
   b. Almost always
   c. Frequently
   d. Sometimes
   e. Seldom or never

   a. Always
   b. Frequently
   c. Sometimes
   d. Seldom or never
   e. I don't eat too much

15. How often do you intentionally vomit after eating?
   a. 2 or more times a week
   b. Once a week
   c. 2-3 times a month
   d. Once a month
   e. Less than once a month (or never)

16. Which of the following describes your feelings after binge eating?
   a. I don't binge eat
   b. I feel O.K.
   c. I feel mildly upset with myself
   d. I feel quite upset with myself
   e. I hate myself

17. I eat a lot of food when I'm not even hungry.
   a. Very frequently
   b. Frequently
   c. Occasionally
   d. Sometimes
   e. Seldom or never

18. My eating patterns are different from eating patterns of most people.
   a. Always
   b. Almost always
   c. Frequently
   d. Sometimes
   e. Seldom or never

19. I have tried to lose weight by fasting or going on "crash" diets.
   a. Not in the past year
   b. Once in the past year
   c. 2-3 times in the past year
   d. 4-5 times in the past year
   e. More than 5 times in the past year
20. I feel sad or blue after eating more than I'd planned to eat.
   a. Always
   b. Almost always
   c. Frequently
   d. Sometimes
   e. Seldom, never, or not applicable

21. When engaged in an eating binge, I tend to eat foods that are high in carbohydrates (sweets and starches).
   a. Always
   b. Almost always
   c. Frequently
   d. Sometimes
   e. Seldom, or I don't binge

22. Compared to most people, my ability to control my eating behavior seems to be:
   a. Greater than others' ability
   b. About the same
   c. Less
   d. Much less
   e. I have absolutely no control

23. One of your best friends suddenly suggests that you both eat at a new restaurant buffet that night. Although you'd planned on eating something light at home, you go ahead and eat out, eating quite a lot and feeling uncomfortably full. How would you feel about yourself on the ride home?
   a. Fine, glad I'd tried that new restaurant
   b. A little regretful that I'd eaten so much
   c. Somewhat disappointed in myself
   d. Upset with myself
   e. Totally disgusted with myself

24. I would presently label myself a "compulsive eater" (one who engages in episodes of uncontrolled eating).
   a. Absolutely
   b. Yes
   c. Yes, probably
   d. Yes, possibly
   e. No, probably not

25. What is the most weight you've ever lost in 1 month?
   a. Over 20 pounds
   b. 12-20 pounds
   c. 8-11 pounds
   d. 4-7 pounds
   e. Less than 4 pounds
Appendix D (continued)

26. If I eat too much at night I feel depressed the next morning.
   a. Always
   b. Frequently
   c. Sometimes
   d. Seldom or never
   e. I don't eat too much at night

27. Do you believe that it is easier for you to vomit than it is for most people?
   a. Yes, it's no problem at all for me
   b. Yes, it's easier
   c. Yes, it's a little easier
   d. About the same
   e. No, it's less easy

28. I feel that food controls my life.
   a. Always
   b. Almost always
   c. Frequently
   d. Sometimes
   e. Seldom or never

29. I feel depressed immediately after I eat too much.
   a. Always
   b. Frequently
   c. Sometimes
   d. Seldom or never
   e. I don't eat too much

30. How often do you vomit after eating in order to lose weight?
   a. Less than once a month (or never)
   b. Once a month
   c. 2-3 times a month
   d. Once a week
   e. 2 or more times a week

31. When consuming a large quantity of food, at what rate of speed do you usually eat?
   a. More rapidly than most people have ever eaten in their lives
   b. A lot more rapidly than most people
   c. A little more rapidly than most people
   d. About the same rate as most people
   e. More slowly than most people (or not applicable)
Appendix D (continued)

32. What is the most weight you've ever gained in 1 month?
   a. Over 20 pounds
   b. 12-20 pounds
   c. 8-11 pounds
   d. 4-7 pounds
   e. Less than 4 pounds

33. Females Only. My last menstrual period was:
   a. Within the past month
   b. Within the past 2 months
   c. Within the past 4 months
   d. Within the past 6 months
   e. Not within the past 6 months

34. I use diuretics (water pills) to help control my weight.
   a. Once a day or more
   b. 3-6 times a week
   c. Once or twice a week
   d. 2-3 times a month
   e. Once a month or less (or never)

35. How do you think your appetite compares with that of most people
    you know?
   a. Many times larger than most
   b. Much larger
   c. A little larger
   d. About the same
   e. Smaller than most

36. Females Only. My menstrual cycles occur once a month:
   a. Always
   b. Usually
   c. Sometimes
   d. Seldom
   e. Never
APPENDIX E

INSTRUCTIONS: The following are a series of statements about men and women. Read each statement carefully and decide the extent to which you agree or disagree with each. We are not interested in what society says; we are interested in your personal opinions. For each statement, circle the letter(s) which seem(s) to best describe your opinion. Please do not omit any statements. Remember to circle only one of the five possible choices for each statement:

SA - Strongly agree
A - Agree
N - Neutral or undecided or no opinion
D - Disagree
SD - Strongly disagree

1. Working husbands and wives should equally sacrifice their careers for the sake of home duties.
   SA   A   N   D   SD

2. It is just as important for fathers to attend their children's school functions as it is for mothers to attend.
   SA   A   N   D   SD

3. Women are typically better listeners than men are.
   SA   A   N   D   SD

4. It should be the wife's responsibility to fit her life to her husband's more than a husband's responsibility to fit his life to his wife's.
   SA   A   N   D   SD

5. Children should seek advice from their fathers, not their mothers, when they are buying a car.
   SA   A   N   D   SD

6. It is just natural that the wife rather than the husband assume responsibility for sending out Christmas cards.
   SA   A   N   D   SD

7. A wife should be the one to decide on a couple's social activities.
   SA   A   N   D   SD

8. Women should have as much right as men to attend social functions unescorted.
   SA   A   N   D   SD
Appendix E (continued)

9. It's just as appropriate for a woman to help a man with his coat as it is for a man to help a woman with her coat.

   SA A N D SD

10. In sexual intercourse either partner should feel free to assume an aggressive role.

   SA A N D SD

11. Mothers and fathers of small children should have an equal right to work outside the home.

   SA A N D SD

12. Children of divorced parents are better off if custody is granted to their mother, rather than to their father.

   SA A N D SD

13. A marriage is probably happier if the husband has more education than the wife.

   SA A N D SD

14. The father and mother should jointly decide on the age at which their children can begin dating.

   SA A N D SD

15. Women should have just as much opportunity to have an evening "with the girls" as men do "with the boys."

   SA A N D SD

16. Husbands and wives should be equally responsible for housekeeping.

   SA A N D SD

17. Cleaning up the dishes should be the joint responsibility of husbands and wives.

   SA A N D SD

18. Children will be better dressed if their mother, rather than their father, is responsible for helping them select what to wear.

   SA A N D SD

19. Men are not as reliable as women in their interpersonal relations.

   SA A N D SD
Appendix E (continued)

20. Fathers are better able than mothers to offer their children guidance in career selection.
    SA A N D SD

21. Women and men are equally capable of developing close and trusting friendships.
    SA A N D SD

22. A husband should leave the care of young babies to his wife.
    SA A N D SD

23. Both the man and the woman should feel responsible to decide what to do or where to go on a date.
    SA A N D SD

24. The family home will run more smoothly if the father rather than the mother is responsible for establishing rules for the children.
    SA A N D SD

25. It should be the mother's responsibility, not the father's, to plan the young child's birthday party.
    SA A N D SD

26. Husbands and wives should jointly plan the family budget.
    SA A N D SD

27. Both the man and the woman should feel responsible for financing a date.
    SA A N D SD

28. A husband and wife should jointly make decisions affecting the family as a whole.
    SA A N D SD

29. The father should have the primary responsibility for punishing the children.
    SA A N D SD

30. It is far worse for a woman to cheat on her husband than for a man to cheat on his wife.
    SA A N D SD
Appendix E (continued)

31. Shaking hands when being introduced to someone is an equally acceptable gesture for both men and women.
   SA A N D SD

32. Women should generally take the passive role in courtship.
   SA A N D SD

33. Fathers and mothers should be equally responsible to see that a child bathes regularly.
   SA A A N D SD

34. When a child awakens at night, it should be the mother's responsibility to take care of the child's needs.
   SA A A N D SD

35. It is worse for a woman to get drunk than for a man.
   SA A A N D SD

36. When it comes to planning a social gathering, women are better judges of which people to invite.
   SA A A N D SD

37. A child's moral development should be more the responsibility of the father than the mother.
   SA A A N D SD

38. The husband should be the head of the family.
   SA A A N D SD

39. A wife is more qualified than a husband to decide which house the couple should buy.
   SA A A N D SD

40. On a date, the woman should decide when to end the evening.
   SA A A N D SD

41. The important decisions about career-related issues should be left to the husband.
   SA A A N D SD
Appendix E (continued)

42. When both parents are employed, they should share the responsibility of caring for sick children.
   SA A N D SD

43. A woman should be careful not to appear more intelligent than the man she is dating.
   SA A N D SD

44. The decision to divorce should be made only by the husband.
   SA A N D SD

45. Fathers and mothers should equally participate in teaching a child proper table manners.
   SA A N D SD

46. The family is best served if the husband and wife jointly handle the family's legal affairs.
   SA A N D SD

47. Women are more likely than men to gossip about their acquaintances.
   SA A N D SD

48. Women have a greater ability to form lasting friendships than do men.
   SA A N D SD

49. A husband should not meddle with the domestic affairs of the household.
   SA A N D SD

50. Men and women should feel equally free to start a relationship with a member of the opposite sex.
   SA A N D SD

51. It is more appropriate for a mother rather than a father to change their baby's diapers.
   SA A N D SD

52. When two people are dating, it is generally best if their social life is based around the man's friends.
   SA A N D SD

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Appendix E (continued)

53. When a married couple is invited to a party, the wife, not the husband, should be responsible to RSVP.
   SA  A  N  D  SD

54. It's okay for the wife to earn as much as her husband.
   SA  A  N  D  SD

55. A child will be better adjusted if the father and mother are jointly responsible for childrearing duties.
   SA  A  N  D  SD

56. A marriage is more likely to succeed if the wife is the boss.
   SA  A  N  D  SD

57. It is more important for the father rather than the mother to attend their child's sports activities.
   SA  A  N  D  SD
APPENDIX F

INSTRUCTIONS: This questionnaire is designed to gather information about binge eating. Binge eating involves periods of uncontrolled, excessive eating. If you respond no to the first item "Do you ever binge eat?", please go on to the next set of instructions. If you respond yes to item 1, please answer all questions. For each item, circle only one answer.

1. Do you ever binge eat? yes no

2. How often do you binge eat?
   a. seldom
   b. once or twice a month
   c. once a week
   d. almost every day

3. What is the average length of a binge eating episode?
   a. less than 15 minutes
   b. 15 minutes to one hour
   c. one hour to four hours
   d. more than four hours: estimate how long: _____________

4. Which of the following statements best applies to your binge eating?
   a. I eat until I have had enough to satisfy me.
   b. I eat until my stomach feels full.
   c. I eat until my stomach is painfully full.
   d. I eat until I can't eat anymore.

5. Do you ever vomit after a binge?
   a. never
   b. sometimes
   c. usually
   d. always

6. Which one of the following best applies to your eating behavior when binging?
   a. I eat more slowly than usual.
   b. I eat about the same as I usually do.
   c. I eat very rapidly.

7. How much are you concerned about your binge eating?
   a. not bothered at all
   b. bothers me a little
   c. moderately concerned
   d. a major concern
Appendix F (continued)

8. Which best describes your feelings during a binge?
   a. I feel that I could control the eating if I chose.
   b. I feel that I have at least some control.
   c. I feel completely out of control.

9. Which of the following best describes your feelings after a binge?
   a. I feel fairly neutral, not too concerned.
   b. I am moderately upset.
   c. I just hate myself.

10. Which most accurately describes your feelings after a binge?
    a. not depressed at all
    b. mildly depressed
    c. moderately depressed
    d. very depressed
APPENDIX G

INSTRUCTIONS: On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY! Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. BE SURE TO READ ALL THE STATEMENTS IN EACH GROUP BEFORE MAKING YOUR CHOICE.

1. 0 I do not feel sad.
    1 I feel sad.
    2 I am sad all the time and I can't snap out of it.
    3 I am so sad or unhappy that I can't stand it.

2. 0 I am not particularly discouraged about the future.
    1 I feel discouraged about the future.
    2 I feel I have nothing to look forward to.
    3 I feel that the future is hopeless and that things cannot improve.

3. 0 I do not feel like a failure.
    1 I feel I have failed more than the average person.
    2 As I look back on my life, all I can see is a lot of failures.
    3 I feel I am a complete failure as a person.

4. 0 I get as much satisfaction out of things as I used to.
    1 I don't enjoy things the way I used to.
    2 I don't get real satisfaction out of anything anymore.
    3 I am dissatisfied or bored with everything.

5. 0 I don't feel particularly guilty.
    1 I feel guilty a good part of the time.
    2 I feel quite guilty most of the time.
    3 I feel guilty all of the time.

6. 0 I don't feel I am being punished.
    1 I feel I may be punished.
    2 I expect to be punished.
    3 I feel I am being punished.

7. 0 I don't feel disappointed in myself.
    1 I am disappointed in myself.
    2 I am disgusted with myself.
    3 I hate myself.
Appendix G (continued)

8. 0  I don't feel I am any worse than anybody else.
     1  I am critical of myself for my weaknesses or mistakes.
     2  I blame myself all the time for my faults.
     3  I blame myself for everything bad that happens.

9. 0  I don't have any thoughts of killing myself.
     1  I have thoughts of killing myself, but would not carry them out.
     2  I would like to kill myself.
     3  I would kill myself if I had the chance.

10. 0  I don't cry anymore than usual.
      1  I cry more now than I used to.
      2  I cry all the time now.
      3  I used to be able to cry, but now I can't cry even though I want to.

11. 0  I am no more irritated now than I ever am.
      1  I get annoyed or irritated more easily than I used to.
      2  I feel irritated all the time now.
      3  I don't get irritated at all by the things that used to irritate me.

12. 0  I have not lost interest in other people.
      1  I am less interested in other people than I used to be.
      2  I have lost most of my interest in other people.
      3  I have lost all of my interest in other people.

13. 0  I make decisions about as well as I ever could.
      1  I put off making decisions more than I used to.
      2  I have greater difficulty in making decisions than before.
      3  I can't make decisions at all anymore.

14. 0  I don't feel I look any worse than I used to.
      1  I am worried that I am looking old or unattractive.
      2  I feel that there are permanent changes in my appearance that make me look unattractive.
      3  I believe that I look ugly.

15. 0  I can work about as well as before.
      1  It takes an extra effort to get started at doing something.
      2  I have to push myself very hard to do anything.
      3  I can't do any work at all.
Appendix G (continued)

16. 0 I can sleep as well as usual.
     1 I don't sleep as well as I used to.
     2 I wake up 1-2 hours earlier than usual and find it hard
to get back to sleep.
     3 I wake up several hours earlier than I used to and cannot
get back to sleep.

17. 0 I don't get more tired than usual.
     1 I get tired more easily than I used to.
     2 I get tired from doing almost anything.
     3 I am too tired to do anything.

18. 0 My appetite is no worse than usual.
     1 My appetite is not as good as it used to be.
     2 My appetite is much worse now.
     3 I have no appetite at all anymore.

19. 0 I haven't lost much weight, if any, lately.
     1 I have lost more than 5 pounds.
     2 I have lost more than 10 pounds.
     3 I have lost more than 15 pounds.

     I am purposely trying to lose weight by eating less:
             Yes          No

20. 0 I am no more worried about my health than usual.
     1 I am worried about physical problems such as aches and
pains; or upset stomach; or constipation.
     2 I am very worried about physical problems and it's hard
to think of much else.
     3 I am so worried about my physical problems that I cannot
think about anything else.

21. 0 I have not noticed any recent change in my interest in sex.
     1 I am less interested in sex than I used to be.
     2 I am much less interested in sex now.
     3 I have lost interest in sex completely.