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THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO, 1986

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EATING DISORDERS, SEX ROLE IDENTIFICATION, AND ASSERTION

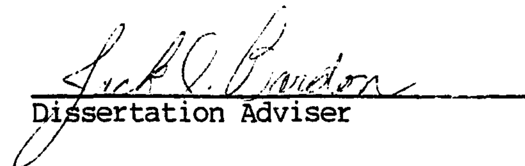
by

James Davis Sullivan

A Dissertation Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Greensboro
1986

Approved by



Dissertation Adviser

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at The University of North Carolina at Greensboro.

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The current study was designed to investigate the possible connection between the eating disorder bulimia, women's sex roles in Western culture, and assertion. Literature was reviewed which suggested that a lack of assertion may be important in understanding the development of bulimia. Hence, the first purpose of the current study was to assess the relationship between bulimia and assertion. The literature also suggested that women's roles in Western society may be important in understanding the disorder. In this regard it was noted that three competing points of view exist in the literature: (1) That bulimic women over identify with the traditional feminine role; (2) That they reject the traditional role; and (3) That they attempt to perfectly fulfill both the role of mother and the role of career woman, thus attempting to be "superwomen." The second purpose of the present study was to determine which, if any, of these theoretical positions was supported.

Subjects for the study were randomly selected undergraduate females living in the residence halls at the University of North Carolina at Greensboro. They were asked to fill out (1) the College Self-Expression Scale (CSES), a measure of assertion; (2) the Eating Disorder Inventory (EDI), a measure of eating concerns, behaviors and attitudes; (3) the Social Performance Survey Schedule (SPSS), a measure of social skills; and (4) the Job-Child (J-C) and Level of Involvement (LI) Scales, two measures of women's future plans for work and family.

Based on their EDI scores, the subjects were assigned to either a bulimic or non-bulimic group. Mean scores for the bulimic group were

compared with those of a selected group of non-bulimic control subjects. No significant differences were found between the two groups on the CSES, the SPSS, or the LI and J-C scales. In addition, scores on the EDI for all subjects were correlated with their scores on the other instruments. While some of the correlations reached statistical significance, all were low and of little or no clinical significance. It was concluded that neither a lack of assertion nor social skills deficits appear to be associated with bulimia.

Likewise, none of the three theories of sex role identification were supported by the present research. It was concluded that, in light of the negative findings of this and other studies for any of the theories of sex role involvement, the theories should be considered of questionable validity.

It was noted that while bulimic women may not differ from non-bulimic women in their level of assertion or their role identification, they may, because of their high need for achievement, see assertion and identification with a non-assertive, non-competitive sex role as a greater issue than do many non-bulimic women.

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CHAPTER I

INTRODUCTION

Over the past two centuries, food has become more readily available to individuals in the western world (Andersen, 1985). Most of western society today is free from the fear of hunger, much less starvation. Therefore, rather than concentrating on the survival value of food, much emphasis today is placed on its pleasing appearance and taste. Most people are not concerned whether they will eat enough calories to survive, but whether the food will please them. In addition, food advertisers woo consumers with suggestions that their products will bring pleasure and popularity. In many advertisements, attractive models are shown appearing to be greatly enjoying themselves while interacting with members of the opposite sex. The suggestion is that not only is the food enjoyable, but that eating it will result in having many psycho-social needs met as well.

As food has become more available and palatable, there has been a simultaneous interest in maintaining slimness. Our society has encouraged the unquestioning acceptance of artificially low weight norms (Boskind-White & White, 1983). Most people are more cruel toward those who are overweight but medically healthy than they are toward individuals with severe physical or emotional disability (Wooley, Wooley, & Dyrenforth, 1979). This is particularly true in the upper middle classes where, ironically, when food was less available, a portly appearance was in vogue. Slenderness has become associated with success, prosperity, popularity, and self-control. A great irony

is that recently, excessive slenderness has also become associated with good health. This association has occurred in spite of the fact that research has consistently shown that individuals who weigh 5-15% above the so-called "ideal" weight live longer than average and tend to be more healthy than individuals who are slightly underweight (Wooley et al., 1979).

While inviting indulgence in tasty, high calorie foods that are associated with the meeting of not only physical but also emotional needs, our society also demands an ideal of slenderness which requires near starvation. In light of this paradox it is not surprising that an extraordinary amount of time and energy are put into repeatedly attempting to take off a socially undesirable 5 to 10 pounds, which is then repeatedly put back on (Andersen, 1985). Excesses at holidays and celebrations are followed by new, more stringent dietary plans. Thus, an eating pattern of binge eating and then strict dieting is not only condoned but encouraged.

Bulimia as a Syndrome

Binge eating is not a particularly new phenomenon. Binge eating was prominent in the upper classes of the Roman Empire. Party goers were actively encouraged to binge and then purge themselves by vomiting so that they could continue their binge (Bruch, 1973). However, it has only been in the past ten years that bulimia has been recognized as a serious problem for many people, particularly women, in industrialized society. Boskind-Lodahl (1976) was one of the first to describe the phenomenon among female university students of normal weight. She referred to the disorder as bulimarexia, noting that the women

frequently purged themselves by means of laxative abuse, vomiting or fasting. She described the distinguishing feature of the disorder as "regular bingeing followed by guilt and a compulsion to rid themselves of the hated food" (p.84) and noted that many of the cultural factors which may contribute to anorexia nervosa may be important in the development of bulimia. Boskind-Lodahl found that many of the women she dealt with built their lives around the bingeing and purging and expressed a great deal of shame concerning their inability to control their eating behavior. The women also reported feelings of helplessness, depression and low self-esteem. Boskind-Lodahl contended that the syndrome was having a very deleterious effect on the women she encountered and that the syndrome and its treatment was a serious issue, demanding the attention of the health care community.

Boskind-Lodahl stated that, while the commonly accepted psychoanalytic model suggested that eating disorders were due to a rejection of the traditional feminine role, she believed that the disorder developed because the women over-identified with the cultural ideal of femininity. In addition to accepting the cultural ideal of thinness and attractiveness, Boskind-Lodahl suggested that the women did not develop assertion skills, believing instead that their needs would be taken care of by others, particularly by men. It was when these needs were not met that the women turned to bingeing.

Research Questions

The first research question is: Is there a connection between assertion and eating disorders? If Boskind-Lodahl's contention that a lack of assertion is important in the development of eating disorders is

correct, there should be a relationship between the two. The second and related research question is: Is there a connection between eating disorders and social skills? Is it assertion skills which result in getting needs met or is assertion only a reflection of more generalized social skills which are then related to getting interpersonal needs met? It may be that bulimic women suffer skills deficits other than the assertion skills deficits noted by Boskind-Lodahl. The third and final research question is: Is there a connection between eating disorders and women's roles in society? If Boskind-Lodahl's theory is correct, eating disordered women should desire to become mothers and wives. However, other theorists have contended that eating disordered women reject the traditional role (Orbach, 1978) or that they may desire to succeed as both working women and mothers, therefore attempting to be "superwomen" (Neuman & Halvorson, 1983).

The following three chapters will present the rationale, methodology and results of a study conducted to look at these research questions. A final chapter will discuss the results of the investigation and their meaning in light of the literature reviewed in Chapter II.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The purpose of the present chapter is to review the literature and research concerning the relationship between eating disorders, identification with the roles of women in western society, and assertion skills. A brief overview of the eating disorder anorexia nervosa will be presented, followed by a more detailed overview of the eating disorder bulimia, which has gained notice in the literature only recently but which appears to be much more prevalent than anorexia nervosa (Schlesier-Stropp, 1984). The major theories concerning the relationship of the roles of women in Western society and of assertion to eating disorders will be presented. Based on these theories, hypotheses will be developed concerning the expected relationship between measures of eating disorders, sex roles and assertion.

Anorexia Nervosa

Anorexia nervosa has been recognized as an eating disorder since its description by Gull in 1868 (Andersen, 1985). The essential features of the disorder are an intense fear of becoming obese, disturbance of body image, significant weight loss, refusal to maintain a minimal normal body weight, and amenorrhea (in females) (American Psychiatric Association, 1980). The diagnostic criteria from the Diagnostic and Statistical Manual of the American Psychiatric Association, third edition (DSM-III) for anorexia nervosa are shown in Table 1.

Table 1

Diagnostic Criteria for Anorexia Nervosa

A. Intense fear of becoming obese, which does not diminish as weight loss progresses.

B. Disturbance of body image, e.g., claiming to "feel fat" even when emaciated.

C. Weight loss of at least 25% of original body weight or, if under 18 years of age, weight loss from original body weight plus projected weight gain expected from growth charts may be combined to make the 25%.

D. Refusal to maintain body weight over a minimal weight for age and height.

E. No known physical illness that would account for the weight loss.

Bulimia

More recently a different, perhaps more frequently occurring eating disorder, bulimia, has drawn a good deal of attention in the literature (Rau & Green, 1975; Beumont, George, & Smart, 1976, Russell, 1979). The essential features of bulimia include episodic binge eating accompanied by an awareness that the eating pattern is abnormal, fear of not being able to stop eating voluntarily, and depressed mood and self-deprecating thoughts following the eating binges (American Psychiatric Association, 1980). The diagnostic criteria from

the DSM-III for bulimia are presented in table 2.

Table 2

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.

The food eaten during a binge often has a high caloric content, a sweet taste, and a texture that facilitates rapid consumption. The food is usually gobbled down rapidly and there is a feeling of loss of control or inability to stop eating.

Prevalence of Bulimia

Estimates of the prevalence of bulimia vary rather widely. Stangler and Printz (1980) reviewed psychiatric diagnoses in a sample of 500 students at the University of Washington Psychiatric Clinic for Students, part of a comprehensive health care facility serving a university population of 37,000 students. During the study, which was part of the field trial of the DSM-III, the staff of the clinic recorded age, sex, ethnic status and multiaxial DSM-III diagnosis of 500 consecutive patients. Of the 500 students evaluated, 22 students (4.4%) were diagnosed as eating disordered, of which 19 (3.8% of the total sample) were diagnosed as bulimic.

Because the study involved only those individuals who sought treatment, the authors concluded that their findings represented a conservative estimate of the prevalence of the disorder in the general student population. They also noted that other cases of bulimia were revealed during therapy, a finding consistent with Boskind-White and White's (1983) observation that bulimia, although a major problem, is frequently not the problem initially presented by bulimic women.

Halmi, Falk, and Schwartz (1981) distributed a questionnaire to 539 summer session registrants at a suburban liberal arts campus of the State University of New York. The Summer session was chosen since this session reportedly attracted more non-traditional students of a more

diverse age grouping which might be more representative of the community at large, rather than only the university community. The questionnaire was structured to obtain information regarding sex, college major and year of study, age and physical stature, one year weight change and history of highest and lowest weight, the use of diet aids and medication, and the behavioral symptoms of bulimia, found in the DSM-III. Of the 539 questionnaires distributed, 355 (66%) were returned. Of the subjects who participated in the study, 33.4% were males and 59.8% were females (6.7% did not indicate their sex). Of the 355 respondents, 13% replied 'yes' to all of the symptoms of bulimia. Of those responding positively to all of the symptoms, 87% were female and 13% were male. Of the total group of 355 respondents, 9.9% (6.1% of the males, 11.9% of the females) reported self-induced vomiting.

By far the highest prevalence rate was reported by Segal and Figley (1985). The researchers recruited 204 female undergraduates enrolled in an introductory course in the social sciences. Of the 204, 160 (78%) agreed to complete several instruments, including a shortened version of the Eating Attitudes Test (EAT) (Garner & Garfinkel, 1979), a self-report measure of eating problems. Segal and Figley found that 23% of those responding scored at or above the cutoff on the EAT. A problem with the study was that the shortened version of the EAT was not validated. Segal and Figley shortened the EAT from 40 items down to 25 by eliminating 15 of the items that pertained to low weight. They then set the cutoff at a proportional 19 points. However, they presented no data to suggest that a score of 19 validly discriminates between bulimic and non-bulimic women.

Demographic Variables

Sex. Bulimia occurs almost exclusively among women (Halmi et al., 1981; White & Boskind-White, 1981) although a few males have been reported with the disorder (Herzog, 1982).

Age. bulimia appears to occur most frequently in young adults. Of eight studies which cited age, all reported that most bulimic patients were in their 20's with means from 21 to 25.3 years (Boskind-Lodahl & White, 1978; Fairburn, 1981; Fairburn & Cooper, 1982; Herzog, 1982; Pyle, Mitchell, & Eckert, 1981; Russell, 1979; Stangler & Printz, 1980; Wermuth, Davis, Hollister, & Stunkard, 1977).

Weight History. Bulimia has been found in all weight ranges from the anorectic to the overweight (Pyle et al., 1981; Fairburn, 1981; Herzog, 1982).

Age at Onset. Most bulimics begin to binge eat in their late teens, around the age of 18, and onset over the age of 30 is quite rare (Fairburn & Cooper, 1982; Pyle et al., 1981).

Duration of the Disorder. In a study of 499 bulimic women, Fairburn and Cooper (1982) reported that the mean duration of the binge eating was 5.2 years while the mean duration of vomiting was 4.5 years.

Bulimia and Depression

Many recent studies of eating disorders have suggested a high positive correlation between bulimia and depression (Schlesier-Stropp, 1984). Studies reporting standardized psychiatric measures have consistently revealed that bulimics received elevated scores on depression scales. Pyle, et al. (1981) reported on the cases of 34 women seen at the University of Minnesota outpatient clinic over a one

year period. All met the DSM-III criteria for bulimia with a mean duration of the disorder of four years. Pyle et al. reported a mean on the Minnesota Multiphasic Personality Inventory (MMPI) depression scale of 74.6 for the group, indicating a significant level of depression.

Wallach and Lowenkopf (1984) profiled 5 bulimic women seen on an outpatient basis at the Mental Hygiene Clinic at the City Hospital in Elmhurst, New York. The women ranged in age from 21 to 46. Wallach and Lowenkopf administered the MMPI, along with several other instruments to the women as a part of their normal clinical assessment. Four of the five women scored above 80 on the depression scale, indicating a reasonably severe level of depression which the authors noted was evident from the subjects' self-descriptions. The authors noted that the one woman who did not score above 80 on the MMPI depression scale was reportedly pressured to go to the clinic and may not have candidly reported her level of distress in an attempt to gain release from treatment.

Assessment by means of psychiatric interviews have also suggested a strong connection between bulimia and depression. Herzog (1982) interviewed the first 30 patients at an outpatient eating disorders clinic in Boston, who met the DSM-III criteria for bulimia. Of the 30, 29 were female. Most were middle to upper-middle class, single, in their mid-twenties and college graduates. Herzog reported a high co-occurrence of depression with 75% of the patients interviewed meeting at least three of the DSM-III criteria for depression.

Russell (1979) reported on 30 (28 females and 2 males) patients he saw over a six and one-half year period from 1972-1978 at the Royal Free

Hospital in London. The mean age of onset for the group was 18.8 years whereas the mean age of the first referral for treatment was 22.8 years. In addition to daily binges, 29 of the 30 reported vomiting and/or purging. Russell reported that "Next to the preoccupations directly concerned with eating and weight, depressive symptoms were the most prominent feature of the patients' mental state" (p. 440). Eleven patients had made at least one suicide attempt and one succeeded in killing herself.

In fact, the relationship between depression and bulimia has led some to suggest that bulimia is a form of or symptom of depression (Hudson, Pope, & Jonas, 1983a). However, as Garner and Garfinkel have pointed out, while there is a high correlation between bulimia and depression, many bulimics are not depressed, suggesting that bulimia is a separate syndrome. Several theorists have suggested the opposing view that, rather than the bulimia resulting from the depression, the depression is the result of a negative self-concept brought on by the bulimic behaviors of bingeing and purging with the recognition that these are abnormal eating behaviors (Herzog, 1982; White & Boskind-White, 1981).

Assertion and Bulimia

All three major theories of bulimia support the importance of deficits in assertion in the development of bulimia and relate these deficits to women's sex roles. Boskind-Lodahl (1976) and Boskind-White and White (1983) contend that bulimic women overidentify with the traditional feminine role which promotes passivity and dependence for women. They suggest that this overidentification results in bulimic

women failing to learn and/or express assertive behaviors since these behaviors are not within the realm of their view of femininity. According to Boskind-White and White, bulimic women have never questioned their assumptions that motherhood and intimacy with men are the fundamental components of femininity. Their obsessive pursuit of thinness constitutes not only an acceptance of the traditional role but an exaggerated striving to achieve it. Bulimic womens' attempts to control their physical appearance also demonstrate their concern with pleasing others rather than asserting their own needs, which they view as inconsistent with the feminine role.

Boskind-White and White contend that bulimic women expect that if they are good enough at fulfilling the passive feminine role, including being thin and attractive, a man will come along and fulfill all their needs. Therefore they do not learn the skills to take care of their own needs, learning instead that those needs will be taken care of for them if only they are beautiful and feminine enough. When their needs are not taken care of, or when the women perceive that they may not be met, as when a man they thought would take care of their needs rejects them, they turn to excessive dieting in the hope of becoming more beautiful. The excessive dieting, with its obsession with food, leads eventually to a binge. The binge results in guilt and fear of gaining weight which lead to purging and then to even more extreme dieting and the cycle begins anew.

Orbach (1978), on the other hand, has suggested that compulsive eating results from a desire to reject the stereotypic female role. Bulimic women view the traditional role as oppressed and oppressing.

However, as a part of their female role, they have not developed the assertion skills necessary to break out of the role by asserting their personal rights and needs. Orbach states that bulimic women:

> feel safer using their mouths to feed themselves than using them to talk and be assertive. They imagine that their fat is making the statement for them while the suffering prevents the words from coming out. (p. 58).

Because of this deficit in assertion skills the women choose the passive means of becoming fat as a way of coping with their problems. According to Orbach, being fat is a way of rejecting the demand placed on women in our society that they be thin, attractive, and demure so that they will be attractive to men. The fat allows women to feel powerful in a culture that limits their power as women. Perhaps most importantly, the fat keeps women from being seen as sex objects. It allows them the opportunity to be evaluated on their own merits rather than being judged on their physical attractiveness. However, according to Orbach, the women are caught in a double-bind since, if they become fat, they are ostracized by a society that demands thinness. Thus, they eat to become fat and to reject the traditional role but fear the sanction of a society which judges them by that role, setting up the binge, followed by a purge, in an effort to escape the double-bind.

Recently Neuman and Halvorson (1983) have presented a third point of view concerning the relationship between assertion and bulimia. They contend that women in our society are pressured not only to be good mothers but also to have successful careers. Therefore they find themselves caught up in the role of "superwomen." This role is

accentuated by perfectionistic tendencies. Eating disordered women not only want to be successful in both roles but to be perfect in both. According to Neuman and Halvorson:

> In most Western societies, a strong cultural emphasis is placed on success. Women formerly achieved their status through affiliation: a woman was the "daughter of..." or the "wife of...". Women took the social status of the men in their lives. Today, new demands of success, independence, and sexuality confront women. These demands not only are new but often contradict other traditional demands that exist simultaneously. Women are consequently thrust into a state of transition. Most women have been raised with traditional values and expectations which are now being challenged and modified. While roles for women and the means of attaining success are more varied, they are also more ambiguous. Thus many females find themselves caught up in the "Superwoman" syndrome, and carry overwhelming and unrealistic expectations for themselves, trying to be all things to all people (p. 23).

Neuman and Halvorson, like Boskind-Lodahl, Boskind-White and White, and Orbach, consider lack of assertion skills as a basic factor in the development of bulimia. They stated that it is their clinical experience that all bulimic women lack assertion skills.

Neuman and Halvorson suggest that bulimic women desire a high, in fact perfect, level of success, but have not learned the skills to be successful, particularly in the traditionally masculine world of work outside the home. One the other hand, eating disordered women find it

difficult to determine what success as a woman means in light of changing sex roles and expectations. However, one clear means of success in our culture, particularly for women, is to be thin and attractive. Therefore the women diet excessively. Unable to maintain the severe dieting, the women begin bingeing.

Although the three theories differ in their views of how women react to their sex roles, there is agreement in their contention that women have traditionally been cast into a nonassertive role, that they therefore have not developed assertion skills, and that this lack of assertion is a basic issue in the development of bulimia. The theories are supported by the findings of Hawkins and Clement (1981) utilizing 118 students from an undergraduate abnormal psychology class at the University of Texas as subjects. One aspect of the study compared scores on the College Self-Expression Scale with scores on the Binge Scale, a 19 item self-report instrument developed by the authors to measure the behavioral and attitudinal parameters associated with bingeing. Items on the Binge scale include "How often do you binge eat?" and "How much are you concerned about your binge eating?." No data were presented concerning the validity of the Binge Scale. In this university sample, 79% of the women and 49% of the men reported binge eating occurrences. Hawkins and Clement found that, for females, increased frequency of bingeing was associated with a low level of assertion ($r= -.20$).

A question which arises is whether bulimic women lack only assertion skills or if the lack of assertion is a reflection of a more generalized lack of social skills. The three theories suggest that

bulimia is linked with lack of assertion per se and do not suggest that the women are lacking in other social skills. Based on the theories presented, it is suggested that, while bulimic women do not differ from non-bulimic women in overall level of social skill, they lack the assertion skills of non-bulimic women. Therefore, the first purpose of the present study is to investigate the relationship between bulimia and assertion skills and between bulimia and social skills in general.

Role Involvement in Bulimic Women

As stated above, there are three distinct and opposing views of bulimic women's sex-role orientation. Boskind-Lodahl (1976) and Boskind-White and White (1983) contended that there is an overidentification with the traditional non-assertive role. Orbach (1978) theorized that bulimic women reject the traditional feminine role but do so in the passive manner of becoming fat, thus reflecting their general non-assertive style. Finally, Neuman and Halvorson (1983) contended that bulimic women attempt to perfectly fulfill both the role of mother and that of career woman, but lack the assertion skills which would help them do so.

To investigate the opposing theoretical positions of Boskind-Lodahl and Boskind-White and White and that of Orbach, Dunn and Ondercin (1981) administered the Bem Sex Role Inventory (BSRI) (Bem, 1974) and the Compulsive Eating Scale (CES) (Ondercin, 1979), along with other instruments, to a group of 47 undergraduate females taking part in an introductory psychology class at the College of William and Mary. The students volunteered to take part in the study as one option of fulfilling a project requirement for the course. The CES is a 32 item

self-report instrument whose items concern emotional states related to food and eating, as well as information with regard to weight, weight control, height, and eating binges. The items are rated on a 5-point likert-type scale and include "Eating seems to calm me down or make me feel better" and "I go on eating binges". High scores on the CES are considered indicative of a tendency toward compulsive eating. The subjects were asked to respond to the BSRI both as they currently saw themselves (current self-concept) and as they would like themselves to be (self-ideal). Subjects scoring in the upper quartile on the CES were compared with those scoring in the lower quartile. Dunn and Ondercin found no difference between the two groups for current self-concept. However, the high scorers indicated that their self-ideal would have the more masculine traits of assertiveness and independence. Dunn and Ondercin stated that "the difference between the two groups appears to lie in the compulsive eater's idealization of assertive, instrumental goals" (p. 48). The researchers concluded that the findings did not support either Orbach's or Boskind-Lodahl and Boskind-White and White's theories. Instead they interpreted the results to suggest that the compulsive eaters were experiencing a conflict between the desire to live up to masculine ideals and the fear of being considered unfeminine if they did so.

Sitnick and Katz (1984) administered the BSRI to two groups of anorexics and two control groups. The first group of anorexics consisted of 16 inpatients who had been admitted for participation in psychoendocrine research studies in the clinical research center of Montefiore Medical Center in New York City. The second group consisted

of 13 nonhospitalized anorectic women, 11 of whom were in active outpatient treatment at the time of the study. One of the control groups consisted of 16 female part-time undergraduate students. The other control group consisted of 16 female students pursuing graduate degrees in social work. All control subjects were within 15% of their ideal body weight.

The anorectic inpatients were administered the BSRI on the first day of admission to the clinical research center. Nonhospitalized anorectic subjects were administered the BSRI in an outpatient setting, while control subjects received it in a classroom setting. The results of the study were similar to those of Dunn and Ondercin. Both groups of anorexic women scored significantly lower than the controls on the scale measuring masculine traits but did not demonstrate a significant difference from the controls on feminine trait scores. Sitnick and Katz interpreted the results to suggest that greater androgeny was preferable and that the anorexic women, while having developed their feminine traits satisfactorily, had not sufficiently developed the masculine traits necessary for androgeny.

The BSRI has recently come under increasing criticism as a measure of sex role identification. Spence (1984) has contended that the Bem does not measure the global constructs of masculinity and femininity but instead the more limited constructs of instrumentality and expressiveness. Spence also contended that the BSRI has been unable to predict behavior consistently. It is possible that flaws in the BSRI have led to the lack of support for either of these theories.

Perhaps a more direct means of assessing the three theoretical

positions than use of the BSRI is to assess the relative value placed on children and career by women with eating concerns, as determined by their own plans for children and career. If Boskind-Lodahl and Boskind-White and White's theory is correct, then women with eating concerns would be expected to attach a very high value on family and this should be reflected in plans to have children and place family above career. On the other hand, if Orbach's theory is correct, then women with eating concerns should attach a rather low value to the traditionally feminine role of mother. Finally, if Neuman and Halvorson's superwoman model is correct, women with eating concerns should desire success in both areas, desiring both children and a successful career. The second purpose of the proposed study is to investigate the relative value women with eating concerns place on the roles of mother and working woman in an attempt to support or refute these theoretical positions.

Main Hypotheses

Boskind-White and White (1983), Orbach (1978), and Neuman and Halvorson (1984) all suggest that bulimic women are lacking in assertion skills as compared to their non-bulimic counterparts. They suggest that this lack of skills is specific to assertion rather than reflecting a generalized lack of social skills. Therefore, the first hypothesis in the present study is that a group of bulimic women will score lower on a measure of assertion than will a group of non-bulimic control subjects and that, among a sample of college women, high scores on a measure of eating disorders will be associated with low scores on a measure of assertion skills (significant negative correlation).

The second and related hypothesis is that scores for a group of

bulimic women on a measure of overall social skills will not differ significantly from those of a group of non-bulimic control subjects and that, among a sample of college women, there will be no relation between scores on a measure of eating disorders and a measure of overall social skills (no significant correlation).

Rodin, Silberstein, and Striegel-Moore (1984) have suggested that women who have a high need to be professionally successful also have a great need to experience success in weight control. The profile of the eating disordered woman presented by Rodin at al. is of a woman who is highly achievement oriented, desiring to be successful in all pursuits. This picture appears to support the theory of Neuman and Halvorson (1984) of the bulimic woman caught in the "superwoman" role.

The third hypothesis is that a group of bulimic women will score higher on measures of role involvement than will a group of non-bulimic controls and that, among a sample of college women, high scores on a measure of eating disorders will be associated with high scores on measures of involvement in the roles of both career woman and mother (significant positive correlation).

Secondary Hypotheses

In addition to the major hypotheses for the proposed study, two secondary hypotheses will be proposed. Wermuth, Davis, Hollister, and Stunkard (1977) contended that there is little or no evidence of chemical dependency among bulimics. Pyle et al. (1981), in contrast, reported a high rate of chemical dependency among bulimics, including previous treatment for drug and alcohol dependency. It is suggested here that bulimics are, in fact, more likely to become dependent on

drugs and alcohol in much the same way they become overly dependent on food as a coping mechanism.

It is hypothesized that a group of bulimic women will report a greater prevalence of drug and alcohol dependency than will a group of non-bulimic controls and that, among a sample of college women, there will be a positive relationship between reported drug and alcohol dependency and scores on a measure of eating disorders (significant positive correlation).

Irregular menstruation is common among anorectics (Beumont, George, & Smart, 1976) and has generally been thought to be the result of low body weight. However, Fairburn and Cooper (1982) found irregular menstruation in almost half of the normal weight bulimics in their study and suggested that abnormal eating habits may disrupt the menses regardless of body weight.

It is hypothesized that a group of bulimic women will report a greater prevalence of menstrual irregularities than will a group of non-bulimic control subjects and that, among a sample of college women, there will be a positive association between the report of menstrual irregularities and scores on a measure of eating disorders (significant positive correlation).

Implications of Findings for Theory, Research and Practice

Assertion training has been suggested (Boskind-White & White, 1983) as one part of a treatment program for bulimia. The intent of the training, in the context of Boskind-White and White's theory, is to help women be less traditionally feminine. However, assertion training has not been considered as a primary treatment mode for the disorder. If

the theories presented here connecting assertion and bulimia are supported by the present research, it would suggest that assertion training may be a useful approach to the treatment of the disorder. A connection between assertion and bulimia would also suggest research into the possible etiological role of assertion skills deficits in the development of bulimia. The theories suggest that assertion skills deficits predate the onset of the disorder and continue during periods in which the disorder is dormant. However, these speculations would require research support and are dependent upon demonstrating that a relationship between assertion and bulimic tendencies does in fact exist.

Many of the current treatment approaches attempt to alter bulimic women's beliefs about sex roles (Boskind-White & White, 1983; Orbach, 1978; Neuman & Halvorson, 1984). Yet, the small amount of research conducted with the BSRI (Dunn & Ondercin, 1981; Sitnick & Katz, 1984) has not supported either of the major theories concerning the connection between sex roles and eating disorders. One possibility already mentioned is difficulty with the measurement instrument, the BSRI. However, a second possibility is that bulimic women do not reject the role of mother in favor of that of career woman or vise versa but instead attempt to be high achievers in the roles of mother and working woman simultaneously as suggested by Neuman and Halvorson and Rodin et al. If the hypotheses of the proposed study are supported, the picture presented of the bulimic woman may be one of a highly motivated individual but one lacking the necessary assertion skills to achieve her goals.

CHAPTER III

METHODOLOGY

Subjects

By returning the completed instruments, 133 female subjects took part in the study. The average age of the respondents was 19.8 years. Of the respondents, 40 were freshpersons, 37 were sophomores, 28 were juniors and 27 were seniors. The reported current weight ranged from 96 to 220 pounds with an average of 131.17 pounds. The reported current height of the respondents ranged from 58 to 70 inches with an average of 65.21 inches. The ideal weight reported by the respondents ranged from 94 to 155 pounds. The average reported ideal weight was 120.48 pounds, 10.69 pounds below the average reported current weight. Only three of the 133 respondents reported an ideal weight that was at or above their current weight. The reported highest past adult weight, excluding pregnancy, ranged from 96 to 250 pounds with an average of 138.95 pounds. The respondents reported having been at this weight an average of 8.07 months. The reported lowest past adult weight ranged from 89 to 183 pounds with an average of 118.79 pounds. This weight was reportedly maintained an average of 13.70 months. The variation in weight (highest past weight minus lowest past weight) ranged from 2 to 110 pounds with an average of 19.88 pounds.

Of those responding, 44.7% reported having experienced menstrual irregularities at some point in their lives and 1.3% of the respondents reported that they were currently experiencing menstrual difficulties. The length of the menstrual irregularities ranged from 1 month to 108

months with an average of 8.36 months and a mode of 24 months. Of those reporting irregularities, 37 (63%) had experienced the irregularities for less than one year, whereas 8 (14%) reported having had the problem for five or more years. None of the respondents reported having been dependent on drugs or alcohol.

Instrumentation

Four instruments were used in the study: the College Self-Expression Scale (CSES) (Galassi, DeLo, Galassi & Bastien, 1974), the Social Performance Survey Schedule (SPSS) (Lowe & Cautella, 1978), the Job-Child and Level of Involvement scales (Coombs, 1979), and the Eating Disorders Inventory (EDI) (Garner, Olmstead & Polivy, 1983).

College Self-Expression Scale

The College Self-Expression Scale (Appendix A) is a 50 item, self report measure of assertion. It utilizes a five point Likert format with 0 being "almost always" and 4 being "never or rarely." There are 21 positively worded items and 29 negatively worded items. A total score for the scale is obtained by summing all positively worded items and reverse scoring and summing all negatively worded items. Low scores are indicative of a generalized nonassertive response pattern. Galassi et al. (1974) found a test-retest reliability of .90 using a two week interval between administrations of the CSES. Kern and McDonald (1980) found a .81 test-retest reliability when the interval was increased to ten weeks. Galassi, Hollandsworth, Radecki, Gay, Howe and Evans (1976) compared the role-play performances of high, medium, and low scorers on the CSES and found that the instrument validly differentiated on percentage of eye contact and assertive verbal content. Howard and Bray

(1979) compared scores on a role-play test, an anonymous phone call in which a confederate posed an unreasonable request and a peer-rating-of-behavior scale. The CSES and one behavioral measure were repeatedly employed to predict the remaining two behavior measures. In each case the CSES provided the better prediction.

Social Performance Survey Schedule

The SPSS (Appendix B) is a measure of social skills containing separate subscales designed to assess positive social behaviors (part A) and negative social behaviors (part B). The behaviors are rated on a 5 point Likert-type scale from "not at all" to "very much." It is assumed that the higher the part A scores and the lower the part B scores, the higher the individual's level of social competence. Examples of items from part A are: "I stand up for my rights", "I initiate contact and conversation with others", and "I have eye contact when speaking." Examples of part B items are: "I put myself down", "I say little in conversations I have" and "I speak in a monotone." Lowe and Cautella (1978) obtained a test-retest reliability coefficient of .87 and an internal consistency coefficient (Cronbach's alpha) of .94 in a college student population for part A. Lowe and Cautella also found that part A scores were inversely related to social anxiety in their student population. Lowe (1982) found that part A correlated in the predicted direction with depression, social introversion and observer's ratings of both social anxiety and social skill among psychiatric patients. Curran (1982) found that the scores on the SPSS of VA psychiatric inpatients were significantly correlated with trained judges' ratings of social skills during a simulated social interaction test.

Miller and Funabiki (1983) compared college students scoring high and low on the SPSS. The subjects were rated on 10 behavioral measures based on their interactions with a confederate. Subjects rated as having high skill levels during the interaction scored high on part A of the SPSS and low on part B, whereas low skill subjects showed the opposite pattern of scores. Miller and Funabiki concluded that the SPSS demonstrated reasonable predictive validity for its use as a criterion measure in future research.

Lowe (1985) found that subjects scoring high on part A had more social interactions, reported having more friends, received generally higher ratings from peers, and reported lower social anxiety. He concluded that the SPSS part A validly discriminated high and low skill subjects.

Job-Child and Level of Involvement Scales

The Job-Child (Appendix C) and the Level of Involvement (Appendix D) scales consist of four items each. On the Level of Involvement scale, subjects are asked to chose one of four job and child combinations with "no children, no job" as the least involved alternative (LI 1) and "3 children, full-time job" the most involved alternative (LI 7). After the initial choice is made, the subject is presented with the other alternatives to obtain the person's complete preference order. The Job-Child scale follows a similar format but the choices vary from "no children, full-time job" (JC 1) to "3 children, no job" (JC 7) and is intended to measure the person's relative commitment to career versus children.

Tittle (1981) found that a majority of female high school students

scored in the midrange (4-5) on both the Job-Child scale and the Level of Involvement scale. However, a large percentage of the females (22%) chose the highest level of involvement (3 children, full-time job).

Eating Disorders Inventory

The Eating Disorders Inventory (EDI) (Appendix E) is a 64 item, multi-scale measure designed to assess the psychological and behavioral traits associated with anorexia nervosa and with bulimia. The EDI consists of eight subscales measuring drive for thinness, bulimia, body dissatisfaction, ineffectiveness, perfectionism, interpersonal distrust, interoceptive awareness, and maturity fears. High scores on each scale are indicative of concerns in that area. Garner, Olmstead & Polivy (1983) administered the EDI to a group of anorexic patients, a group of bulimic patients and to groups of non-eating disordered males and females. They also administered the instrument to groups of obese women, formerly obese women, and a group of recovered anorexics. The anorexic patients scored higher than the controls on all scales. The bulimic group had elevated scores for drive for thinness, bulimia, and body dissatisfaction, and they scored higher than did restrictor (non-bingeing) anorexics on the bulimia and body dissatisfaction scales. As further support for the validity of the EDI, Garner et al. had experienced clinicians rate patients on the scale items. All correlations were reported significant at the .001 level. Reliability coefficients (Cronbach's alpha) ranged from .82 for the perfectionism scale to .90 for the bulimia, body dissatisfaction, and ineffectiveness scales. The authors concluded that the EDI demonstrated adequate validity and reliability.

Data Collection

The Office of Residence Life at the University of North Carolina at Greensboro (UNCG) was contacted concerning the utilization of students in the residence halls for the study. The Director of Residence Life agreed to ask the hall directors to distribute and collect the packets of instruments. A presentation concerning the study was made to the hall directors at a regularly scheduled meeting approximately 5 weeks prior to the time the packets were to be distributed. A complete description of the study and role the directors were being asked to play was given. All the directors agreed to take part in the study.

A list of all undergraduate women at UNCG was provided by the Office of Residence Life. From this list, 250 subjects were selected randomly through the use of a table of random numbers.

Each subject was contacted by letter and asked to take part in the study (Appendix F). A description of the methods and means of maintaining confidentiality was provided in the letter. An offer was also made to provide group feedback to all participants who indicated a desire for feedback and individual feedback to those who wished to identify themselves by providing their identification numbers at the time of the group meeting. Of the 133 respondents, 63 indicated a desire for group feedback.

Letters were also sent to the hall directors (Appendix G) stating that the packets would be distributed to them on Monday, January 27th, and would be collected from them on Thursday, January 30th. They were asked to distribute the packets on Monday the 27th and to collect them on Wednesday the 29th, so that they would be available for collection on

the 30th. In addition, a letter was sent to the hall directors by the Director of Residence Life, requesting their full cooperation in the conduct of the study.

Packets were prepared with the subjects' names on the outer envelope. An unmarked inner envelope was provided for the return of the instruments so that confidentiality could be maintained. The instruction sheet (Appendix H) stated that no record had been kept relating the names and identification numbers and therefore the subjects could not be identified without their consent. Included in the packets was a postcard (Appendix I) indicating that the subject had completed the instruments and had returned them to their hall director. The subjects were asked to fill out and return the card through the campus mail when they had, in fact, completed the instruments and returned them to the hall director. On the postcard, the subjects were asked to print their names and indicate whether or not they were interested in being invited for group feedback.

The packets contained the College Self Expression Scale, the Eating Disorders Inventory, the Social Performance Survey Schedule, and the Job-Child and Level of Involvement scales. Subjects were asked to respond to the first three instruments on computer answer sheets which were attached to the instruments. Responses to the Job-Child and Level of Involvement scales were recorded directly on the instruments. The packets also contained a personal information sheet (Appendix J) which they were asked to complete and return with the instruments.

The instruments were given to the hall directors on the morning of Monday, January 27th, 1986, and distributed to the subjects by that

evening with the exception of one hall, where the packets were not delivered until the following morning. In most cases the hall directors returned to collect the instruments on the evening of January 29th, 1986, 48 hours after the instruments were distributed. However, two hall directors did not collect the packets immediately and were several days late in returning any of the packets. The packets were collected on January 30th. However, due to difficulties in contacting the hall directors, the initial collection was not complete until Tuesday, February 4th. Ninety-eight of the packets were returned at this time for an initial return rate of 39.2%.

On Monday, February 3rd, a postcard (Appendix K) was sent to all the subjects who had not returned the postcard indicating that they had completed the instruments and had returned them to their hall director. The postcard requested that they complete the instruments and return them to the hall directors as soon as possible. A letter (Appendix L) was also delivered to the hall directors, asking them to encourage all subjects who had not completed and returned the instruments to please do so immediately. A self addressed envelope was provided in which the hall directors could return any late responses. An additional 35 packets were returned by Friday, February 14th, raising the overall return rate to 53.2%.

Data Analysis

Of the 133 respondents, 11 (8.4%) scored above the cutoff on the EDI bulimia scale established by Garner and Olmstead (1984). These 11 were assigned to the bulimic group for the data analysis. A control group was determined by randomly selecting 11 subjects from those

scoring between one-half standard deviation below and one-half standard deviation above the mean for all the respondents.

Mean scores were calculated for both the bulimic and control groups on the CSES, the SPSS, and the LI and J-C scales. The mean report of menstrual irregularities was calculated to assess this secondary hypothesis. Since none of the respondents reported drug or alcohol dependency, no analysis was possible on this variable. Means for each group were also calculated for the other seven EDI scales. A series of t-tests were used to determine differences between the means for the two groups.

To determine the relationships between the scales, scores on the EDI were correlated with scores on the CSES, SPSS, and the LI and J-C scales. To assess the second secondary hypothesis, scores on the EDI were correlated with the report of menstrual irregularities. Again, none of the respondents reported drug or alcohol dependency. Therefore, no analysis of this variable was possible.

CHAPTER IV

RESULTS

Introduction and Overview

The data from the study were entered and analyzed on the VAX 11/780 computer at the academic computer center at UNCG. No significant differences were found between the bulimic and control groups on the CSES measure of assertion, on the SPSS measure of social skills, or on the LI and J-C measures of role involvement. In addition, the correlations between the EDI eating behavior and attitudes scales and each of the other scales were uniformly low. While the correlations between the EDI eating behavior and attitudes scales were statistically significant, they were low enough to be of very questionable clinical significance.

The first secondary hypothesis, concerning drug and alcohol dependency, could not be assessed since none of the respondents reported dependence on drugs or alcohol. The other secondary hypothesis, concerning menstrual irregularity, was generally supported.

Eating Disorder Inventory Scores

As shown in Table 3, the average scores on the eight scales of the Eating Disorder Inventory were very similar to the normative scores reported by Garner and Olmstead (1984) for college women. The largest discrepancy of 1.57 on the body dissatisfaction scale is well within one standard deviation. On the bulimia scale, 8.4% of the respondents scored above the cutoff recommended by Garner and Olmstead. While considerably lower than the 23% found by Segal and Figley (1985), this

estimate of the prevalence of bulimia among a college student population is consistent with that found by other investigators (Schlesier-Stropp, 1984). Of the 133 respondents, 15, or 11.5%, scored above the cutoff on the drive for thinness scale. A somewhat surprising 30.3% of the respondents scored above the cutoff on the body dissatisfaction scale, indicating that almost one-third of the respondents scored above the mean for a group of diagnosed anorexic women.

Scoring of the EDI

There are six possible responses for each item on the EDI: always, usually, often, sometimes, rarely and never. However, the recommended scoring method (Garner & Olmstead, 1984) is to count only the most extreme scores. Therefore, the most extreme response (always or never, depending on the keyed direction) earns a score of 3, the immediately adjacent response a 2, the next response a 1 and the other 3 responses receive no score. Using this scoring technique, approximately 50% of the respondents received a score of 0 on each of the EDI scales. Such a skewed distribution would violate the assumptions for a correlation (Glass & Stanley, 1970). However, a perfectly normal distribution would take on a similar skew if 50% of the responses were scored 0, as is the case with the suggested scoring for the EDI. Thus, it was decided to rescore the EDI using all six responses. With this change in scoring, the distribution of responses closely approximated a normal distribution. Therefore, the correlations presented were calculated using the revised scoring method. However, for the purposes of comparison to the normative group, scores in Table 3 were computed using the scoring method recommended by the authors of the instrument.

Table 3

Comparison of Scores on the EDI with Norms for Female College Students Established by Garner and Olmstead (1984)

	Present Study		Garner & Olmstead	
	Mean	(S.D.)	Mean	(S.D.)
Drive for Thinness	5.87	(5.58)	5.1	(5.5)
Bulimia	1.98	(3.09)	1.7	(3.1)
Body Dissatisfaction	11.27	(7.84)	9.7	(8.1)
Interoceptive Awareness	3.28	(4.22)	2.3	(3.6)
Interpersonal Distrust	3.39	(2.12)	2.4	(3.0)
Perfectionism	6.20	(3.91)	6.4	(4.3)
Maturity Fears	2.17	(2.99)	2.2	(2.5)
Ineffectiveness	2.11	(3.32)	2.3	(3.8)

College Self-Expression Scale and Social Performance Survey Schedule Scores

Scores for the group on the College Self-Expression Scale ranged from 63 to 172 with a mean of 125.57 (S.D. 19.99), slightly higher than the 117.0 found by Galassi et al. (1974) for undergraduate females. Scores on the SPSS ranged from 98 to 193 with a mean of 148.11 (S.D. 18.70). These scores compare closely with the mean of 144.2 (S.D. 18.8) reported by Lowe and Cautella (1978) for undergraduate females.

Level of Involvement Scale and Job-Child Scale Scores

The mean score on the Level of Involvement scale of 4.72 (S.D.

1.62) was identical to the mean of 4.72 (S.D. 1.64) reported by Tittle (1981) for a group of high school women. The mean of 3.81 (S.D. 1.73) on the Job-Child scale was slightly lower than that reported by Tittle (4.12, S.D. 1.92) for the high school women.

EDI Scores for the Bulimic and Control Groups

As indicated in Chapter III, the 11 subjects scoring above the cutoff established by Garner and Olmstead (1984) were assigned to the bulimic group while 11 subjects scoring between one-half standard deviation below and one-half standard deviation above the mean were randomly assigned to act as a control group.

Table 4

Comparison of Scores on the EDI for Bulimic and Non-Bulimic Groups

	Bulimic Group		Non-Bulimic Controls			
	Mean	(S.D.)	Mean	(S.D.)	*t*	
Drive for Thinness	13.45	(5.70)	6.22	(6.50)	-2.62	(p<.05)
Bulimia	10.27	(2.24)	1.40	(0.52)	-12.21	(p<.0001)
Body Dissatisfaction	18.18	(6.09)	7.60	(7.28)	-3.63	(p<.002)
Interoceptive Awareness	8.64	(7.02)	3.00	(3.71)	-2.26	(p<.05)
Interpersonal Distrust	4.45	(2.98)	3.80	(2.35)	-0.56	(n.s.)
Perfectionism	9.64	(3.88)	6.00	(3.83)	-2.16	(p<.05)
Maturity Fears	4.55	(6.85)	2.00	(2.83)	-1.09	(n.s.)
Ineffectiveness	6.18	(5.81)	3.20	(3.97)	-1.36	(n.s.)

The mean scores on the eight EDI scales for the bulimic and control groups are shown in Table 4. Also as shown in Table 4, the group means for the two groups differed significantly on 5 of the eight scales, suggesting that the groups were indeed different in terms of their eating related habits and concerns.

Hypotheses

Eating Disorders and Assertion

The first hypothesis of the present study was that a group of bulimic women would score lower on a measure of assertion than would a group a non-bulimic control subjects and that, among a sample of college women, high scores on a measure of eating disorders would be associated with low scores on a measure of assertion skills (significant negative correlation).

Table 5

Comparison of Scores on the CSES, SPSS, LI and J-C Scales for Bulimic and Non-Bulimic Groups

	Bulimic Group		Non-Bulimic Controls		
	Mean	(S.D.)	Mean	(S.D.)	t
CSES	173.36	(26.12)	178.60	(17.24)	0.53 (n.s.)
SPSS	145.63	(25.07)	142.00	(19.40)	-0.37 (n.s.)
LI	4.72	(1.74)	4.60	(1.43)	-0.18 (n.s.)
J-C	3.72	(1.79)	3.70	(1.49)	-0.04 (n.s.)

As shown in Table 5, t-tests revealed no significant differences

between the means for the bulimic group and the control group on the CSES.

Table 6

Pearson Product-Moment Correlations Between Scores on the EDI and Scores on the CSES and SPSS

	CSES		SPSS	
	r		r	
Drive for Thinness	-.18	($p<.05$)	-.02	(n.s.)
Bulimia	-.19	($p<.05$)	-.18	($p<.05$)
Body Dissatisfaction	-.17	($p<.05$)	-.16	(n.s.)
Interoceptive Awareness	-.33	($p<.0001$)	-.18	($p<.05$)
Interpersonal Distrust	-.42	($p<.0001$)	-.40	($p<.0001$)
Perfectionism	-.11	(n.s.)	.08	(n.s.)
Maturity Fears	-.21	($p<.05$)	-.30	($p<.001$)
Ineffectiveness	-.40	($p<.0001$)	-.44	($p<.0001$)

As noted in Table 6, the correlation between the EDI bulimia scale and the CSES was -.19 ($p<.05$). Correlations between the CSES and the EDI drive for thinness scale and between the CSES and the EDI body dissatisfaction scale were at -.18 ($p<.05$) and -.17 ($p<.05$), respectively. While these correlations are statistically significant at the .05 level, correlations of -.17 to -.19 are indicative of only a very slight relationship between the variables and suggest little that

might be considered of clinical significance. Therefore, the first hypothesis was not supported.

Eating Disorders and Social Skills

The second hypothesis was that scores for a group of bulimic women on a measure of overall social skills would not differ significantly from those of a group of non-bulimic control subjects and that, among a sample of college women, there will be no relation between scores on a measure of eating disorders and a measure of overall social skills (no significant correlation). As can be seen in Table 5, a t-test between the mean scores on the SPSS for the bulimic group and the control group indicated no significant difference between the means. In addition, as shown in table 6, the correlations between the SPSS and the EDI eating behavior and attitudes scales were low. Again it is pointed out that while the correlation between the EDI bulimia scale and the SPSS was significant at the .05 level, it is indicative of a weak relationship that is of little or no clinical significance. Therefore, the second hypothesis is supported.

Eating Disorders and Role Involvement

The third hypothesis was that a group of bulimic women would score higher on measures of role involvement than would a group of non-bulimic controls and that, among a sample of college women, high scores on the measure of eating disorders would be associated with high scores on measures of involvement in the roles of both career woman and mother (significant positive correlation). As Table 5 shows, no significant differences were found between the bulimic and control groups on the Level of Involvement scale. Further, none of the correlations between

the EDI scales and the LI scale were significant, as shown in Table 7. Therefore, the third hypothesis was not supported.

Table 7

Pearson Product-Moment Correlations Between Scores on the EDI and Scores on the Level of Involvement and Job-Child scales

	Level of Involvement scale		Job-Child scale	
	r		r	
Drive for Thinness	.06	(n.s.)	.10	(n.s.)
Bulimia	-.03	(n.s.)	-.02	(n.s.)
Body Dissatisfaction	-.07	(n.s.)	.02	(n.s.)
Interoceptive Awareness	.04	(n.s.)	-.02	(n.s.)
Interpersonal Distrust	-.06	(n.s.)	-.08	(n.s.)
Perfectionism	.08	(n.s.)	-.08	(n.s.)
Maturity Fears	.09	(n.s.)	-.02	(n.s.)
Ineffectiveness	-.07	(n.s.)	-.05	(n.s.)

As for Boskind-Lodahl's (1976) and Boskind-White and White's (1983) suggestion that bulimic women over-identify with the female role, no support was found in the present study. No significant differences were found between the bulimic and control groups on the J-C scale (Table 5) and, as Table 7 suggests, there were no significant correlations between the three EDI eating behavior and attitude scales and the Job-Child scale.

<u>Alcohol and Drug Dependency</u>

The first secondary hypothesis was that a group of bulimic women would report a greater prevalence of drug and alcohol dependency than would a group of non-bulimic controls and that, among a sample of college women, there would be a positive relationship between reported drug and alcohol dependency and scores on a measure of eating disorders (significant positive correlation). It was not possible to evaluate this hypothesis since none of the respondents reported alcohol or drug dependency.

<u>Menstrual Irregularity</u>

The other secondary hypothesis was that a group of bulimic women would report a greater prevalence of menstrual irregularity than would a group of non-bulimic controls and that, among a sample of college women, there would be a positive association between the report of menstrual irregularity and scores on a measure of eating disorders (significant positive correlation). There was a significant difference between the bulimic and control groups in their report of menstrual irregularity. Of those in the bulimic group, 70% reported having experienced menstrual irregularity whereas only 20% of the control group reported irregularity ($t= -2.46$, $p<.05$).

This finding was supported by the correlational analyses shown in Table 8. There was a moderate positive correlation between reported menstrual irregularity and scores on the EDI bulimia scale ($r= .29$, $p<.001$). Overall, these findings appear to give moderate support to the hypothesis.

Table 8

Pearson Product-Moment Correlations Between Scores on the EDI and the Report of Menstrual Irregularity

	r	
Drive for Thinness	.20	$(p<.05)$
Bulimia	.29	$(p<.0001)$
Body Dissatisfaction	.15	(n.s.)
Interoceptive Awareness	.25	$(p<.01)$
Interpersonal Distrust	.26	$(p<.01)$
Perfectionism	.13	(n.s.)
Maturity Fears	.13	(n.s.)
Ineffectiveness	.26	$(p<.01)$

CHAPTER V

DISCUSSION

Eating Disorders and Assertion

The first hypothesis in the present study was that a group of bulimic women would score lower on a measure of assertion skills than would a group of non-bulimic control subjects and that, among a sample of college women, high scores on a measure of eating disorders would be associated with low scores on a measure of assertion skills (significant negative correlation). The hypothesis was not supported. There were no significant differences between the bulimic and non-bulimic groups on the CSES measure of assertion and the correlations between the EDI eating behavior and attitude scales and the CSES, while statistically significant, were too low to be meaningful clinically. The negative findings of the present study, along with the similar low correlation (-.20) found by Hawkins and Clement (1980) between bulimia and assertion suggest little support for any of the three theories linking lack of assertion with bulimia.

Eating Disorders and Social Skills

The second hypothesis was that scores for a group of bulimic women on a measure of overall social skills would not differ significantly from those of a group of non-bulimic controls and that, among a sample of college women, there would be no relation between scores on a measure of eating disorders and a measure of overall social skills (no significant correlation). This second hypothesis was supported. However, the meaning of this finding is difficult to interpret in light

of the lack of support for the first hypothesis. Had the first hypothesis found support and the second hypothesis not been supported, this would have suggested that assertion skills, not general social skills, are more closely associated with bulimia. Such a finding would have been consistent with the theories presented in Chapter II. Had a lack of assertion not been associated with bulimia whereas a lack of social skills had been associated with bulimia, this might suggest that bulimic women suffer a general lack of social skills rather than a lack of assertion. Had this been the case, it may have been that what the theorists interpreted to be a lack of assertive behavior may have been a more general lack of socially skillful behavior. However, the findings suggest that neither a lack of assertion nor social skills deficits are linked with bulimia. Again the findings cast a great deal of doubt on the theoretical connection between assertion and bulimia.

Eating Disorders and Role Involvement

The third hypothesis, that eating disordered women would demonstrate a higher level of role involvement in the roles of both mother and working woman, found no support. One factor in considering this outcome is that over 95% of the respondents indicated that they wanted both to work and to have children. Almost 40% of the respondents indicated that having 3 children and a full-time job was either their first or second choice of lifestyles. It may be that these women, as a group, are inclined toward being "superwomen" and that, therefore, the women who may have had eating concerns did not stand out as being any different.

There also was no support for either Orbach's (1978) contention

that bulimic women reject the traditional role of women nor for Boskind-White and White's (1983) contention that eating disordered women over-identify with the traditional role. These findings, added to the negative findings incorporating the BSRI, suggest that, although the theories may provide an interesting framework for considering some issues that are important in terms of women's roles and their relation to bulimia, they are not upheld by research.

A discrepancy appears to exist between the findings of the present study and the clinical experience of the practitioners whose theories were presented in Chapter II. The findings of the study suggest that there is no actual difference between bulimic and non-bulimic women in level of assertion or in their sex role identification. However, the practitioners felt that these are major issues for bulimic women.

Perhaps these positions are not as discrepant as they appear to be. It may be that, while bulimic women are no no different from their non-bulimic counterparts in level of assertion or sex role identification, their level of assertion and sex role identity are greater issues for them. A key factor may be the high need for achievement noted in eating disordered women (Garner & Garfinkel, 1982; Neuman & Halvorson, 1984). Women have been cast into a generally non-assertive role in Western society. They have been encouraged to be cooperative rather than competitive and taught to highlight the achievements of others, particularly men, while downplaying their own accomplishments. Such a non-assertive, non-achievement oriented role may not be as bothersome to women who are not highly achievement oriented. However, the high achievement orientation of bulimic women

may result in desiring to be more assertive and competitive.

Therefore, bulimic women, while being no less assertive and competitive, may be more concerned about these issues and more likely to present them as important issues in counseling. The practitioners dealing with bulimic women may be very accurate in viewing assertion and the non-competitive, non-assertive traditional role of women as important issues for these women. Even if bulimic women are no less assertive and do not identify any more or less strongly with the traditional role of women than do non-bulimic women, these issues may be of relatively greater importance to them because of their desire to achieve. Further research into the attitudes of bulimic women toward assertion and sex roles may help resolve the apparent discrepancy between the current research and clinical experience.

Alcohol and Drug Dependency

The first secondary hypothesis, that there would be a positive association between alcohol and drug dependency and scores on a measure of eating disorders, could not be evaluated due to the fact that none of the respondents indicated that they had ever been dependent on drugs or alcohol. A problem may have been the fact that the respondents were asked to indicate whether or not they had been dependent on drugs or alcohol. It is unlikely that most college aged students would recognize or be willing to admit to drug or alcohol dependency. However, there is considerable evidence that there is a high level of alcohol and perhaps drug usage in this population (Engs, 1977). Perhaps a better way of approaching this question would have been to have asked the respondents to indicate the frequency of alcohol and drug usage.

The frequency rating could then have been used as an indication of level of usage and possible dependency. While respondents may not have been completely honest in their self-report, particularly if they consumed large quantities of drugs and/or alcohol, it is felt that they would have been more likely to admit to their level of usage than to their dependency.

Menstrual Irregularity

The other secondary hypothesis was that the bulimic women would report a higher prevalence of menstrual irregularity and that the report of menstrual irregularity would be associated with higher scores on a measure of eating disorders. A significantly higher percentage of the bulimic women reported menstrual irregularity and a significant correlation was found between reported menstrual irregularity and scores on the EDI bulimia scale. These findings, using predominantly normal or near normal weight subjects, supports the findings of Fairburn and Cooper (1982) who suggested a connection between abnormal eating patterns and menstrual irregularity, regardless of weight classification. The significance of these findings may lie in its diagnostic value. It is well documented that women experiencing eating disorders are reluctant to seek aid for the problem (Boskind-White & White, 1983; Garner & Garfinkel; 1982). This fact presents problems for health care professionals in identifying persons who may be experiencing an eating disorder. This is particularly true for normal weight bulimics. However, it may be that repeated difficulties with menstrual irregularity might serve as a cue to health care professionals to investigate the possibility of eating problems.

A surprising finding was that a seemingly quite high 44.7% of the respondents reported having experienced menstrual irregularity. This compares with the 46.6% reported by Fairburn and Cooper (1982) in their population which consisted exclusively of bulimic women. However, only 9.9% of the women in the present sample reported having experienced menstrual irregularity in the past 6 months as compared with all 46.6% in the Fairburn and Cooper study.

Limitations of the Study

It might be argued that the present study, and its findings, were limited by the fact that the participants were volunteers. Only a little over one-half of those invited to take part in the study actually participated by returning the instruments. The characteristics of those choosing not to participate are not known. It may be that the majority of the women in the sample who may have had eating concerns chose not to participate. Choosing not to participate would seemingly be consistent with the secretive nature of the eating disorders. On the other hand, it might be that women with eating concerns were over-represented in the group who chose to take part since they had a greater interest in the study. Likewise, it could be that only the more assertive women took the initiative to return the instruments or that only the less assertive women succumbed to the pressure placed on them by the hall directors. Nonetheless, the scores obtained in the present study closely approximate those found by other researchers using the same instruments with similar populations, suggesting that the sample in the present study was representative of the larger population.

It might also be argued that the study was limited by the fact that

it relied on the self-reports of the participants. While confidentiality was stressed throughout to encourage honest responses, it is not known that the participants were able to accurately assess their behaviors, attitudes and future plans. It may be that the women truly believe they behave assertively, for example, while they in fact fail to do so. However, there is no reason to believe that bulimic women are any less able to rate their behaviors than are women without eating concerns. Therefore, there is nothing to suggest that the bulimic women in the present study rated themselves as being more assertive than they actually were, while the non-bulimic women did not.

Summary

In conclusion, no support was found for the hypothesized connection between assertion and bulimia. This finding, combined with earlier negative findings, suggests little support for the theories connecting assertion and bulimia.

The second hypothesis, that scores for a group of bulimic women on a measure of overall social skills would not differ significantly from those of a group of non-bulimic controls and that, among a sample of college women, there would be no relation between scores on a measure of eating disorders and a measure of overall social skills (no significant correlation) was supported. The findings therefore suggest that neither a lack of assertion nor a lack of social skills is associated with the bulimic syndrome.

No support was found for any of the theories connecting bulimia and roles of women. The results did not suggest that women with eating concerns reject the traditional female role, as Orbach (1978) has

suggested, nor do they over-identify with the traditional role, as Boskind-White and White (1983) contended. The "superwoman" theory of Neuman and Halvorson found no support in that women who indicated eating concerns did not invest in the roles of both mother and working woman any more than women who did not express such concerns. These findings, combined with similar findings from earlier studies, suggest that women with bulimia do not subscribe to any particular ideology concerning the role of women.

It was noted that while bulimic women may not differ from their non-bulimic counterparts in their level of assertion or their sex role identification, these issues may be of relatively greater importance to them because of their high need for achievement and perhaps, therefore, desire for greater assertion and competitiveness. Thus, bulimic women might present these issues as important in counseling and lead therapists to correctly view assertion and role identification as important issues for bulimic women.

Bulimic women, by virtue of their desire for thinness, do appear to accept the cultural definition of attractiveness for women. If, indeed, this cultural obsession with thinness is a critical issue in the development of eating disorders, then it behooves those interested in dealing with the disorders, and those interested in women's issues in general, to work toward establishing a more realistic ideal than is currently accepted.

Finally, a connection was found between menstrual irregularity and bulimia. This finding, combined with the similar findings of other researchers, suggests that irregular menstruation may be linked to

erratic eating habits and may prove to be an important diagnostic indicator in the case of women suspected of experiencing an eating disorder.

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Appendix A

College Self-Expression Scale

PLEASE NOTE:

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These consist of pages:

APPENDIX A: 58-60

APPENDIX B: 62-64

APPENDIX E: 70-71

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Appendix B

Social Performance Survey Schedule

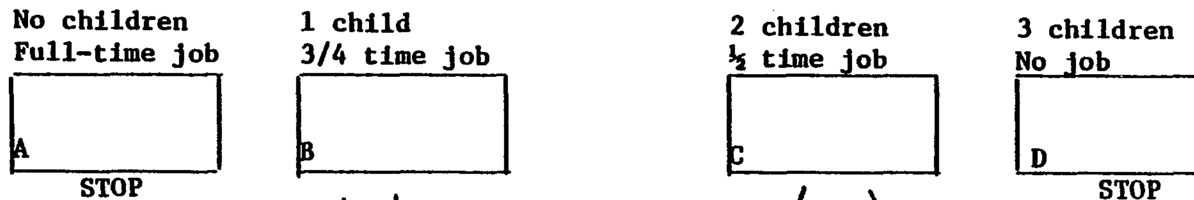
Appendix C

Job-Child Scale

ID Number ____________________

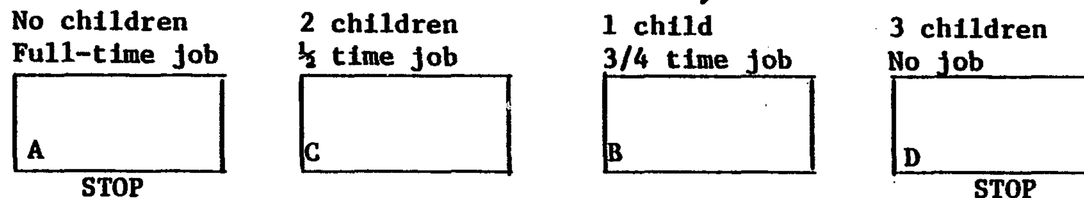
Job-Child Scale

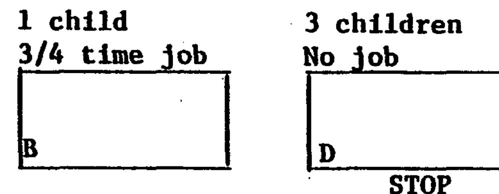
If you could have just what you wanted, which of the options would you most like for yourself? The job is for pay and the children are under ten years of age. Continue until you reach a STOP, then go on to the next instrument.



If you selected B, now select one of the two choices below by placing an "X" in the box.

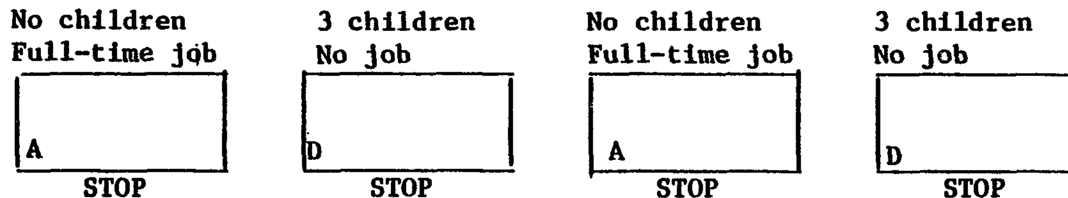
If you selected C, now select one of the two choices below by placing an "X" in the box.





If you selected C, now select one of the two choices below by placing an "X" in the box.

If you selected B, now select one of the two choices below by placing an "X" in the box.



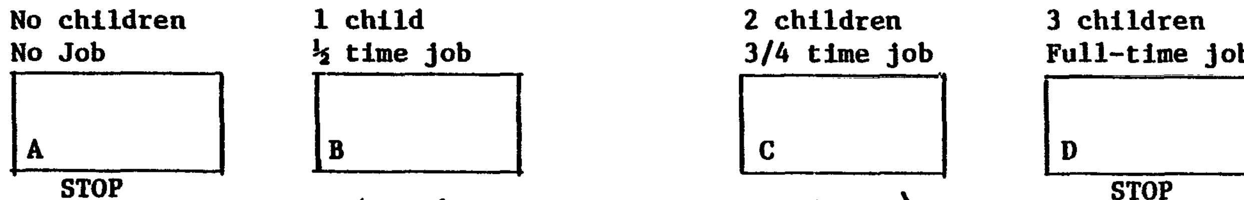
Appendix D

Level of Involvement Scale

ID Number ____________________

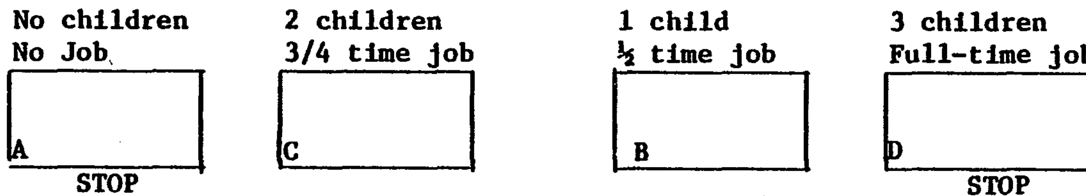
Jobs and Children

We want to find out how you feel about various job and children possibilities for yourself. Although none of these options may be your exact choice, select the one that most closely fits your preferences. Assume that the job is for pay outside the home and that the children are under 10 years of age. Select one of the choices below by making an "X" in the box. Continue until you reach a STOP, then go on to the Job-Child scale.



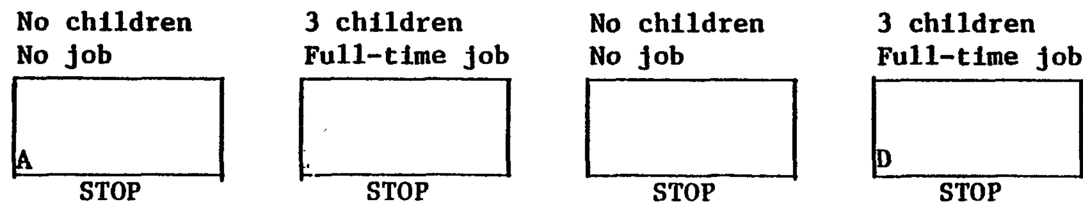
If you selected B, now select one of the two choices below by placing an "X" in the box.

If you selected C, now select one of the choices below by placing an "X" in the box.



If you selected C, now select one of the two choices below by placing an "X" in the box.

If you selected B, now select one of the choices below by placing an "X" in the box.



Appendix E

Eating Disorders Inventory

Appendix F

Recruitment letter

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

School of Education

Department of Counseling and Specialized Educational Development

&fname& &lname&
P.O. Box &box&
&hall& Residence Hall

Dear Ms. &lname&:

As many as 23% of women on college campuses may have a major concern over their eating habits. Unfortunately, little attention has been focused on this issue in terms of how eating habits develop.

I am asking you to take part in a study of how and why certain habits may come to exist. Your name was selected at random from a list of people living in the residence halls at UNC-G. Your selection was not based in any way on your eating behavior. I am requesting that you fill out some inventories concerning your social activities and your eating habits and concerns. To insure confidentiality, your responses will not be associated with your name. You will be given an identification number so that your responses on the different instruments can be correlated. However, no record will be maintained associating names with numbers. These measures will insure that your responses cannot be identified and that your confidentiality will be maintained.

I will plan to meet with all the participants in the study who are interested in recieving feedback on the outcome of the study. If you indicate interest in receiving feedback, I will contact you about a time and place for the group to meet. I will also be most happy to give you feedback on your individual scores on the instruments. This will, of course, require that you identify yourself by reporting your identification number to me at the time of the group meeting.

The instruments will be distributed to you by your residence hall director on _____, January ___and collected by her/him on ________, January _____. Please be sure to have all of the instruments finished by ______the _____. It will require approximately one hour for you to complete the instruments. You will, of course, be able to drop out of the study at any time and are under no pressure or obligation to take part in the study.

I know that I am making a large request in asking you to add to your already busy schedules when there is no immediate benefit for you. However, I do think that this is an important issue for women today and that your participation in the study may help us in better understanding the development of eating habits.

Thank you for your assistance,

Jim Sullivan
2Ø9 Ferguson Building
51ØØ Ext. 72

Appendix G

Letter to Hall Directors

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

School of Education

Department of Counseling and Specialized Educational Development

&fname& &lname&
Director
&hall& Residence Hall
Campus

Dear &fname&:

During the residence life meeting last December 10th I talked about a study concerning eating disorders in which I had proposed utilizing residence hall students. As I said then, I would greatly appreciate your help in handing out and collecting the instruments used in the study. I will plan to bring the packets of instruments to you on Monday, January 27th. I would like for you to give out the packet of instruments to the participants in the study that day and then collect them on Wednesday the 29th--therefore allowing the participants approximately 48 hours to complete the instruments. It should require about one hour for the participants to fill out the instruments. I will then get back to you on Thursday the 30th to collect the packets of completed instruments from you.

I have set the 48 hour time period to encourage prompt action by the participants and I ask that you encourage them to meet the time limit. However, it is likely that some people will not complete the instruments within the 48 hour time period. Please ask those who have not completed the instruments to fill them out as soon as possible and return them to you. Enclosed in the packets will be a post card that I am asking the participants to mail to me letting me know they have completed the instruments. I will send a letter to those not returning the post card to me by Friday, January 31st, asking them to please complete the instruments and give them to you. I will be back in touch with you to collect these "stragglers".

I will be sending letters to all of the participants explaining the study and letting them know that they will be receiving the packets from you on the 27th. They are, of course, free to not participate. However, I would appreciate it if you would encourage them to take part.

A study of this nature requires a high return rate in order to have any meaning and your role is crucial in determining how many of the packets are returned. Please know that your efforts are genuinely appreciated.

Please feel free to call or drop by (Ferguson is the new building connected to Curry by a crosswalk) if you have any comments or questions.

Thanks,

James D. Sullivan
209 Ferguson
5100 Ext. 72

Appendix H

Participant Instructions

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

School of Education

Department of Counseling and Specialized Educational Development

Identification Number _______

Thank you for participating in this study concerning eating habits. Enclosed are five instruments. Please take time to complete them by Wednesday, January 29th, when your hall director will return to collect them from you. **Please be sure to record your answers on the computer answer sheets unless asked to do otherwise. Please be sure to fill in your identification number (given above) on each answer sheet. However, do not place your name on the answer sheets.** It should require approximately one hour to complete all five of the instruments. **Please be sure to fully complete all five.** Included in the packet is a sheet requesting some demographic information (age, year in school, etc.). Please fill this out and return it with the other materials.

You should plan to respond to each item as quickly and honestly as possible. There are no right or wrong answers to any of the items so please answer the items as they apply to you personally rather than the way you think most people would answer. Please answer the items on your own rather than in a group. I am interested in your responses.

As I explained in my initial letter, I have taken stringent measures to insure your confidentiality. No one, other than you, will be able to associate you with your responses.

I will plan to meet with all of you who are interested in recieving feedback. There will be a group meeting for the purpose of presenting the findings of the study and to discuss your reactions. I will, however, only be able to present group scores at this meeting. I will be happy to give individual feedback to you concerning your scores on the instruments. However, since I have no means of associating your scores with you, it will be necessary for you to report your identification number to me. If you want me to tell you about your individual scores, it will be necessary for you to write this number down and report it to me at the time of the group meeting.

When you have completed and returned the packet of instruments to your hall director, please fill out the enclosed post card letting me know that you have done so. Also, please note whether or not you would like to be invited to the group feedback session. Please send the card by campus mail. **Do not** return it with the packet of materials since the packet will contain your identification number.

Please feel free to contact me if you have any questions.

Thank you for your time and effort,

James D. Sullivan
209 Ferguson
5100 Ext. 72

Appendix I

Return Post Card

____
NAME (Please print)

I have completed and returned my packet of instruments
to my hall director.

I would like to be invited to the group feedback meeting.

Yes No

Appendix J

Personal Data Form

Please complete and return with the completed instruments.

ID number __________

Age ______ Year in school Fr So Jr Sr

Present weight ________ Present Height ___________

What would you consider to be your ideal weight? ________

Highest past weight (excluding pregnancy) ____________

How long ago? _________

How long did you weigh this weight? _____________

Lowest past adult weight __________

How long ago? _________

How long did you weigh this weight? _____________

Have you ever experienced any menstrual irregularities? Y N

If so, how long ago? ________

How long did you experience the problem? ________

Have you ever been dependent on drugs or alcohol? Y N

If so, how long ago? ________

How long did this last? _______

Appendix K

Follow-up Post Card

Last week your hall director gave you a packet of materials surveying social and eating behaviors. Please accept my thanks if you have already completed and returned the materials to your hall director. If not, I would deeply appreciate your completing the instruments and returning them to your director as soon as possible. It is very important that I get as much input as possible if I am to achieve a meaningful understanding of the factors being studied. Therefore, your responses are very important in completing the study.

If, by some chance, you did not receive the survey or it has been misplaced, please call me and I will send another to you today.

Jim Sullivan
209 Ferguson
5100 Ext. 72

Appendix L

Follow-up Letter to Hall Directors

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

School of Education

Department of Counseling and Specialized Educational Development

&fname& &lname&
Director
&hall& Residence Hall

Dear &fname&:

Thanks so much for your help in my study. Your efforts were important and appreciated. I hope there will be some "straglers" still coming in and ask that you strongly encourage all who did not complete and return the instruments to you to do so as soon as possible. Attached is an envelope with my address on it. Perhaps the easiest way for you to get any late returns to me is to put them in this envelope and drop it in the campus mail. Please use your own judgement about when you have gotten all you think you are going to get, but I would seriously doubt that any will come back after one week. Therefore, if you would plan to have the envelopes back at least by next Thursday, I would think this would allow plenty of time for people to get the instruments back to you. Please do send the envelope back even if you do not get any late returns. That way I will know I have gotten all the returns I am going to get.

Thanks again and good luck with the rest of the school year.

Sincerely,