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Social Factors Associated with Bulimia Nervosa in College Women

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SOCIAL FACTORS ASSOCIATED WITH BULIMIA
NERVOSA IN COLLEGE WOMEN

A Thesis

Presented To

The Faculty Of The Department of Sociology

Western Kentucky University

Bowling Green, Kentucky

In Partial Fulfillment

Of The Requirement For The Degree

Master of Arts

by

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May 1995

SOCIAL FACTORS ASSOCIATED WITH BULIMIA
NERVOSA IN COLLEGE WOMEN

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SOCIAL FACTORS ASSOCIATED
WITH BULIMIA NERVOSA IN
COLLEGE WOMEN

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69 pages

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The purpose of this research was to examine the social dimensions of bulimia. Bulimia was viewed using the symbolic interactionist perspective. This perspective was used to see bulimia as a socially constructed line of action. A questionnaire was given to 426 female students at a mid-sized Southern university during the fall of 1994. Crosstabulations and a logistic regression were used to analyze the data. Results suggest that sorority membership, a belief in the importance of avoiding becoming overweight, a belief that one's relationships with men are dependent on being attractive, and low satisfaction with one's social life are related to developing bulimia as a line of action.

CHAPTER I
INTRODUCTION

The sociology of medicine is the branch of medical sociology that is concerned with the effect that the society has on the medical community (Wolinsky 1987). One of the primary goals of the sociology of medicine is to find the sociological factors associated with both medical and psychological disorders. Such a goal relates to the study of social epidemiology in medical sociology. Social scientists and physicians are interested in finding the relation between the society and the medical and psychological disorders its members possess.

This thesis was focused on one such disorder: bulimia nervosa. Bulimia nervosa is characterized by binge eating followed by purging. Purging may take the form of either self-induced vomiting or excessive doses of laxatives (Mitchell and Pyle 1985). Research has indicated that bulimia occurs primarily in white females from affluent families, with the college-aged population being a high-risk group (e.g., Crandall 1988; Gordon 1990; Nagel and Jones 1992). Previous research has not, however, examined the combined effects of many sociological variables--such as

sorority membership, satisfaction with social life, and race--that may be connected with bulimia. I examined the combined effects of these variables to show their relation to bulimia.

Finding the social factors associated with bulimia will benefit both the discipline of sociology and the medical community. The results of this research will be of benefit because I will explore the social dimensions of a psychophysiological disorder. This knowledge will provide insight into how better to understand bulimia and, therefore, find preventative techniques that best combat all of the causes of bulimia.

The problem of bulimia was examined through the symbolic interactionist theoretical perspective. Symbolic interactionists would argue that ideal body weight, body image, and physical attractiveness are socially constructed (Shur 1984). Through the process of social interaction the individual learns how to construct lines of action in order to achieve what he or she perceives as ideal body weight. One of these lines of action is bulimia. By examining the incidence of bulimia among the female college population, I was able to explore which social identities, such as race and sorority membership, correlate with the bulimic line of action. The attitudes of bulimics and non-bulimics were also examined to show the relation between the individual's self concept and the bulimic line of action. The validity

of the theoretical framework was tested by using a questionnaire that examined female students' social identities, attitudes related to their self concept, and eating behavior. By analyzing the results of this questionnaire I was able to study which females are associated with the bulimic line of action. In doing so I was able to show the social factors associated with bulimia.

CHAPTER II
THEORETICAL PERSPECTIVE

In order to examine the social dimensions of bulimia I used the symbolic interactionist theoretical perspective. The symbolic interactionist perspective sees the self as arising from a process of social interaction. It also sees individual motivations and lines of action as products of social interaction (Charon 1985). By utilizing the interactionist perspective I was able to explain how bulimics view themselves and their actions and also how they construct lines of action from their definitions of self.

History of the Symbolic Interactionist Perspective

The symbolic interactionist perspective has a long history in the discipline of sociology. "The Harvard psychologist, William James, was perhaps the first social scientist to develop a clear concept of 'self'" (Turner 1986, p. 312). James saw the self in terms of three components: the material self, the spiritual self, and the social self. According to James the material self is made up of the physical objects that are part of the individual's world. James considered the body to be the "innermost part" of the material self (James [1890] 1950, p. 296). Other

physical objects such as the individual's house, clothes, family, etc., are also a part of the material self. The second component of the self is the spiritual self. The spiritual self is the "man's inner or subjective being, his [sic] psychic faculties or dispositions" (James [1890] 1950, p. 292). In other words, the spiritual self contains the individual's thoughts and beliefs that form his or her cognitive style. The last component is the social self. The social self "is the recognition which he (the individual) gets from his mates" (James [1890] 1950, p. 293).

James recognized that the social self arises out of a process of interaction in which the individual caters his behavior to his audience. This process of interaction enables the individual to "have as many social selves as there are individuals that recognize him" (James [1890] 1950, p. 294). Although James developed a clear concept of self, he did not expand his ideas. His idea that the self arises out of a process of interaction, however, did lay the groundwork for interactionists to theorize further about the self.

One social scientist who went on to expand the concept of self was Charles Cooley. Cooley saw the self as an integrated part of social relations. "We may define the self as what the individual feels he [sic] is as a unique element in social relationships" (Cooley 1933, p. 117). According

to Cooley the self is a process in which individuals see themselves in relation to other people and other objects. This process is what Cooley called "the looking glass self." In this process other people's gestures serve as social mirrors in which people see and evaluate themselves (Turner 1986, p. 313). Cooley saw this process having three principal elements.

A self-idea of this sort seems to have three principal elements: the imagination of our appearance to the other person; the imagination of his [sic] judgement of that appearance, and some sort of self-feeling, such as pride or mortification. (Cooley [1922] 1964, p. 184)

Unlike other theorists in his day, like Freud, who saw the relation between the self and society as one based on conflict within the individual, Cooley saw a more constructive relation between the two. Cooley theorized that in order to understand the self one must examine the social environment in which the individual interacts.

Another important social philosopher in the development of symbolic interactionism was W.I. Thomas. Thomas (1937) speculated that individuals construct lines of action based on their definitions of the situation.

An adjustive effort of any kind is preceded by a decision to act or not act along a given line, and the decision is itself preceded by a definition of the situation, that is to say, an interpretation, or point of view, and eventually a policy and a behavior pattern. (Thomas 1937, p. 8)

Thus, the individual defines the situation he or she is in and acts according to that definition. Because individuals can define the same situation differently, they

also can react differently to the same situation. By showing that lines of action were constructed by the individual rather than determined by the situation, Thomas enabled other symbolic interactions to show the relation of the self to the definition of a situation, which definition ultimately affects the line of action the individual chooses.

The social philosopher who made the most significant strides in developing the symbolic interactionist perspective was George Herbert Mead. In his book, Mind, Self, and Society, Mead (1934) integrated the theories of James and Cooley and expanded the concept of how the self develops. Mead felt that humans interact by using symbols and constructing lines of action.

Mead recognized that the unique feature of the human mind is its capacity to (1) use symbols to designate objects in the environment, (2) to rehearse covertly alternative lines of action toward these objects, and (3) to inhibit inappropriate lines of action and select a proper course of overt action. (Turner 1986, p. 317)

Mead felt that the interpretations of these symbols come out of a process of interaction with others.

The gesture arises as a separable element in the social act, by virtue of the fact that it is selected out by the sensitivities of the other organisms to it; it does not exist as a gesture merely in the experience of the single individual. (Mead 1934, pp. 145-46)

To construct lines of action the individual must use these symbols in order to "take the role of the other."

In abstract thought the individual takes the attitude of the generalized other toward himself, without reference to its expression in any particular other

individuals; and in concrete thought he takes that attitude in so far as it is expressed in the attitudes towards his behavior of those other individuals with whom he is involved in the given social situation or act. (Mead 1934, pp. 155-56)

According to Mead, the generalized other is constructed by the individual structuring the attitudes of particular others "in terms of their organized social bearings and implications" (Mead 1934, p. 158). In other words, by observing a number of people with common attitudes and beliefs the individual is able to generalize about people in that category. The individual uses the generalized conceptions of the feelings, motivations, etc., of the "particular others" in order to evaluate and modify his or her behavior. By taking the role of the other the individual develops a deeper understanding of other people's feelings. He or she is then able to construct lines of action to produce the desired results from the other person. By relating the self to a process of interaction based on a manipulation of symbols, Mead was able to pave the way for other symbolic interactionists.

Georg Simmel, a German social scientist, is best known for his contributions to understanding the forms of social interaction (Ritzer 1983). To Simmel social forms were the conditions and situations in which society develops and is determined. Simmel concentrated on the micro-level interactions rather than the large structures of society. He felt that society arose out of these micro-level

interactions. "Society exists where a number of individuals enter into interaction" (Simmel 1908, p. 23). He also was able to describe how individuals identify and associate with each other through a process of interaction. Simmel believed that human personality emerges from the people with whom the individual affiliates (Turner 1986). By showing how the structure of society comes out of the process of interaction Simmel was able to show how people identify with certain groups and how this identification formed the self.

Rosenberg's Conceptualization of the Self

Following in the footsteps of these earlier theorists Morris Rosenberg (1981) gives a more developed and differentiated view of the self which will enable me to relate these concepts to the bulimic female. Rosenberg sees the self in terms of several components that interact with one another and affect the individual's concept of reality and his or her motivations. These components of the self are: the self concept, social identity, social esteem, and self esteem. Central to his conceptualization of the self is the self concept. He views the self concept as being both a social product and a social force.

The self concept achieves its particular shape and form in the matrix of a given culture, social structure, and institutional system. But the self concept, in its turn, exercises an important influence on behavior in various institutional realms. Since the self concept is acted upon and, in turn, acts upon society, it is relevant to view it as a social product and a social force. (Rosenberg 1981, p. 593)

Therefore, the self is not totally programmed by the

individual's society. The self concept responds to influences from the society, integrates them, and, in turn, responds by influencing the society that influenced it. The self concept not only arises out of a process of social interaction but is also an actor in this process of interaction.

The individual's social identity is the next concept that is tied to the self concept. According to Rosenberg the social identity "refer[s] to the groups, statuses, or social categories to which members of society are socially recognized as belonging" (1981, p. 601). Social identity, in terms of the variables in this study, is measured by membership in a sorority, racial background, participation in various types of athletic activities, mother's and father's levels of education, and type of home community. The social identity is linked to the self concept because the social identity is the way society views the individual; and because the self concept is a social product, the self concept becomes partially defined in terms of the social identity.

Social identity and the self concept can then be linked to what Rosenberg refers to as social esteem. Because of a society's system of stratification, different levels of social esteem are associated with different locations in the system of stratification. Occupations, racial groups, social classes, etc. are all compared to one another in

terms of their position in the hierarchy of a given society. Each of these identities commands an unequal amount of social esteem. Therefore, it is more desirable for an individual to have a higher social identity than a lower social identity in order for his or her social esteem to improve. Social esteem is then linked to self esteem because the way people perceive the individual has an effect on the way the individual perceives himself or herself. "When people treat us with respect, we respect ourselves accordingly" (Rosenberg 1981, p. 604). The majority of the literature on bulimia contends that it is a disorder caused by "low self esteem." What Rosenberg has shown is that low self esteem is not an entity unto itself. According to Rosenberg self esteem does not exist in a vacuum but rather is constructed to some degree by the individual's society.

When we relate all of these concepts together, we can see how individuals construct lines of action in order to improve not only their self esteems but also their self concepts, social identities, and social esteems. Lines of action are defined as paths or ways to things that are desirable to us (Charon 1985). "When faced with a problem, we consider various lines of action, considering consequences of each line, and then we go with a strategy that suits us best" (Charon 1985, p.126). Because we are to choose a strategy that "suits us best," we construct lines of action in accordance with our self concept, social

identity, and our self and social esteems. In essence we construct lines of action to improve our social identities, self concepts, and our self and social esteems. Therefore, the question of this research becomes "Which individuals construct bulimic behavior as a line of action and why?"

Bulimia as a Line of Action

First of all, we must see how the bulimic female is constructing this line of action and how her self esteem, social esteem, self concept, and social identity are related to this line of action. In American society it is more socially desirable for females to be thin rather than fat. Or as one author put it, "Fat offends Western ideals of female beauty" (Orbach 1979, p.21). Agents of socialization such as the mass media reinforce this idea. Imagery of the beautiful, thin woman is a central device in much contemporary advertising (Shur 1984). In American society fat women are the ones that are most blatantly devalued (Shur 1984). Crandall (1988) feels that this imagery has created a "cult of dieting" in American society.

There is evidence that this obsession with thinness is becoming more and more extreme, requiring females to be thinner and thinner. In a study of the body sizes of Miss America contestants and Playboy centerfolds Garner, Bohr, Olmsted, and Garfinkel (1982) found that their body sizes had been decreasing over the past twenty years.

Although the standard of thinness is enforced on all

females in society, only a relatively few women have serious eating disorders, and fewer still are bulimic. The question then becomes, "Why do some women become bulimics and others do not?" I argue that the answer to this question lies in how the individual's self concept is formed. Because our perception of ourselves is based on the way others perceive us, females are socially conditioned to place a high degree of importance on being attractive, an attitude which goes hand in hand with being thin. Because the social identity is being defined by this criterion, the self concept, in turn, is also defined by this criterion. Therefore, when the female is presented with the problem of becoming too heavy (by society's standards), she will develop lines of action to deal with this problem based on her self concept.

The line of action thus becomes the social force component in Rosenberg's definition of the self concept. The definitions of beauty and their importance are the social products of the female's self concept. The line of action (bulimic behavior) is, therefore, practiced by those females who have internalized this cultural emphasis on thinness to such a degree that bulimic behavior seems to them to be the only appropriate action.

Bulimia as Deviant Behavior

Once the individual has constructed this line of action, her behavior can be best understood by viewing the line of action as deviant behavior. When explaining the

connection between illness and deviant behavior, Mechanic (1968) uses a similar theoretical model to explain the connection between the self and illness. He makes this link by stating there are two components to social responses to deviant behavior. The first component is the self-definition. This term refers to "the way in which the person comes to regard himself; in other words, it defines the individual's self-identity" (p. 41). The other component, social reactions, refers to "the identities that other people attribute to the individual" (p. 41). In viewing illness as deviant behavior, Mechanic shows us the interaction between the self and the society. The interaction becomes the basis of what he refers to as "illness behavior."

Mechanic (1968) sees illness behavior as being socially learned. In his analysis of several studies on illness behavior he concludes that society has a major role to play in the process.

It seems fair to conclude that cultural and social conditioning plays an important though not an exclusive role in patterns of illness behavior, and that ethnic membership, family composition, peer pressures, and age sex role learning to some extent influence attitudes toward risks and the significance of common threats, and also the receptivity to medical services. (p. 125)

Although Mechanic sees social influence as one of the most important factors influencing the behavior of the "deviant," he also sees these social influences as interacting with the individual's perception of the illness.

In other-defined illness,

The person tends to resist the definition that others are attempting to impose on him, and it may be necessary to bring him into treatment under great pressure and perhaps involuntarily. (p. 139)

Resistance is especially pronounced in the case of bulimia, in which the individual often is living in a climate of denial and is trying to hide the behavior from others in order to avoid being treated.

Whether or not the deviant defines his or her condition as an illness depends on "how it presents itself and how recognizable it is to him [sic]" (Mechanic 1968, p. 143). Put differently, if individuals do not recognize the condition as an illness, they will not think they are ill. In the case of bulimia the self-definitions of the condition and the other-definitions of the illness are in conflict. The bulimic's definition of the situation is quite different from that of the people around her. Therefore, the individuals would feel the other people's definition of their condition is irrelevant and hostile and try to hide their condition from their significant others.

In such a case the bulimic engages in what Erving Goffman (1963) refers to as "covering." Goffman postulated that certain individuals with undesirable or deviant traits (stigmas) use various techniques to deal with them so they can assimilate into social relationships. One of these techniques, covering, presents a situation in which the individuals will do all they can to hide their stigmas from

others.

It is a fact that persons who are ready to admit possession of a stigma (in many cases because it is known about or immediately apparent) may nonetheless make a great effort to keep the stigma from looming large. (Goffman 1963, p. 102)

Because bulimic behavior carries with it a considerable social stigma, the bulimic will use covering in order to hide his or her behavior from others. In this way the bulimic can still appear "normal" and avoid the adverse effects of having a stigma.

The focus of this research was to examine whether different social identities are more likely to be present in women who attempt to achieve or maintain a socially desirable body weight through bulimic behavior. Because particular social identities produce different lines of action, the hypotheses that I formulated related the respondents' social identity to the bulimic line of action. I also examined the attitudes of the respondents because these attitudes are an integral part of the individuals' self concepts and may foster the bulimic line of action. By doing so I was able to explore the social factors associated with bulimia.

CHAPTER III

REVIEW OF THE LITERATURE

The investigation of the causes and dynamics of bulimia nervosa is not confined to one specific discipline. Researchers have come to recognize that bulimia has many contributing factors. These include biological/physiological factors, social factors, and psychological factors (e.g., Crandall 1988; Grissett and Norvell 1992). The purpose of this literature review was to investigate the previous research on the social factors associated with bulimia. This way of studying bulimia is referred to by researchers as the socio-cultural approach to the study of bulimia (Crandall 1988). My literature review integrated the research in sociology, psychology, and education that is concerned with using this approach to studying bulimia.

In reviewing the literature on bulimia I have found that little research has been done in the discipline of sociology. With the exception of a study conducted by Morgan, Affleck, and Solloway (1990), the research in sociology is largely theoretical and lacks empirical verification. Therefore, I will examine this study closely as it is the only study in the discipline of sociology that empirically explores bulimia using the socio-cultural

approach.

In their study, "Gender Role Attitudes, Religiosity, and Food Behavior: Dieting and Bulimia in College Women," Morgan et al. (1990) sought to explore the social factors associated with bulimia. Although the primary purpose of that research was to analyze the effects of gender role attitudes and religiosity on bulimia, other social factors were examined. These social factors included race, sorority membership, participation in athletics, social class, mother and father's level of education, and mother's paid employment. The original plan was for the sample to consist of 285 females and 214 males at a large Southwestern university. After the preliminary analysis of the data was done, however, the researchers found significant gender differences between males and females in regard to dieting and bulimia. Therefore, only the responses of the females were analyzed.

Of the females in the sample 16 percent admitted to forcing themselves to vomit or to taking laxatives to control their weight. This incidence of bulimia was similar to that found in other studies Morgan et al. (1990) examined. Using forward selection regression the researchers found that, of all the demographic variables, only race was significantly related to bulimia at the .05 level. In contrast to other research on bulimia (e.g., Abrams 1991), the researchers found the minority women were

more likely to engage in bulimic behavior than were whites. Also in contrast to other studies reported by Crandall (1988), sorority membership was not found to be significantly related to bulimia. Morgan et al. (1990) found that neither religiosity nor gender role attitudes were directly related to bulimia.

Operationally Defining Bulimia

In other disciplines socio-cultural researchers of bulimia have taken approaches different from those of Morgan et al. (1990). These approaches examine variables similar to those that the Morgan study examined, such as race and sorority membership, but also examine other social variables and their effects on bulimia.

I looked at the problems that have been experienced by these researchers in operationalizing bulimia and the differences in the incidence these problems have caused. Finally, I integrated these different approaches to view the social panorama of bulimia that emerged.

The first item that should be addressed is how bulimia is defined and operationalized in the studies conducted in these other disciplines. The definition of bulimia comes from a source that is seen as the authority in diagnosing mental disorders in the discipline of psychology: The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-III) 1980. Its diagnostic criteria for bulimia are as follows:

- 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; and
 - 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. and bulimic episodes not due to Anorexia Nervosa or any known physical disorder. (pp. 70-71)

Most studies, especially on large populations, have great difficulty meeting all the requirements of the DSM-III to give a clear diagnosis of bulimia. Therefore, scales that measure the main features of bulimia are used in order to operationalize the disorder. One such scale is the Binge Eating Scale (BES), which was developed by Gormally, Black, Daston, and Rardin in 1982. The scale is used to assess the criteria for bulimia in the DSM-III. This scale does not, however, ask the respondent about purging. Crandall (1988) used this scale in conjunction with indicators that measured purging.

Other, more general scales, such as the Eating Attitudes Test (Garner, Olmsted, Bohr, and Garfinkel 1982),

are used to measure a whole range of eating behaviors. These scales tend to be quite lengthy and involved. For example, the Eating Attitudes Test consists of 26 items, and the Binge Eating Scale consists of 16 items. Although these scales are very reliable, they are difficult (and expensive) to administer to a large population. Therefore, Morgan et al. (1990), whose exploration into bulimia is more exploratory, simply measured the main feature of bulimia, which in their case was purging (using laxatives or vomiting). These discrepancies in the measurement of bulimia have caused the reported incidence in studies to vary greatly. In their study on the prevalence of eating disorders, Mintz and Betz (1988) report on several studies that claim 68 percent to 79 percent of college women suffer from bulimia, while other studies claim the incidence is much lower. The authors feel that these discrepancies are caused by "the wide array of operationalized criteria used to define eating disorders" (p. 463). In their study of 682 undergraduate women the authors found the incidence of bulimia to be 3.1 percent, when using a stringent, clinical definition of bulimia. When using a less stringent, non-clinical definition of bulimia the authors found the incidence of bulimia to be 26.9 percent. This study shows how the incidence of bulimia is dependent on the researcher's definition of bulimia.

Social Correlates of Bulimia

In reviewing the literature on bulimia in the socio-cultural approach, other researchers have found social correlates of bulimic behavior. These include race, social class, sorority membership, dissatisfaction and problems in bulimics' social lives, and gender differences in the bulimic population. These correlates show that there are social factors associated with bulimia.

The principal bulimia correlate that emerges from the literature is gender. Although males have been known to practice bulimic behavior, it is predominantly a female disorder (Crandall 1988; Gordon 1990; Hesse-Biber 1989). Crandall (1988) went as far as to say that bulimia was "the women's psychological disease of our time" (p. 588). Because bulimia occurs primarily in females, most studies choose to study only the dynamics of bulimia among females (e.g., Bilich 1989; Crandall 1988; Grissett and Norvell 1992; Hesse-Biber 1989; Nagel and Jones 1992). Even when males are included in the sample, the gender differences are so pronounced--due to the fact that there are so few bulimic men--that analysis on large samples is very difficult. Such was the case with the Morgan et al. (1990) study in which the males were dropped from the analysis.

Another bulimia correlate that emerges from the literature is race. In a study of 100 white college females and 100 black college females Abrams (1991) found that

bulimic behavior was significantly higher among the white students. Social class, however, has been found to be an intervening variable in the relation between race and bulimia. Nagel and Jones (1992) indicate that the relation between race and bulimia is diminished when minority women from higher socio-economic statuses are studied for their inclination toward eating disorders. Researchers have found a strong connection between social class and bulimia. Bilich (1989) reports on a study of 275 bulimics at a number of university clinics. Of these bulimics 85 percent came from families of higher socioeconomic statuses. Gordon (1990), also, indicates that bulimia seems to be more concentrated in individuals coming from families of higher socioeconomic status, especially families in which the mother has a high-status occupation.

Socio-cultural theorists have also identified social locations and attitudes of females on the college campus that are correlated with bulimia. These theorists have identified the college campus as an area where bulimia seems to flourish (e.g., Crandall 1988; Gordon 1990; Mclorg and Taub 1994). Research has indicated that 13 percent of all college females exhibited types of behavior which could be termed bulimic (Mclorg and Taub 1994). Gordon (1990) has speculated that bulimia spreads very quickly on college campuses but also has a social dimension to it, like mass hysteria.

Bingeing and purging seem to sweep like a brush fire through college dormitories, almost like one of the famous epidemics of mass hysteria. A particularly astonishing development, also, is the emergence of bulimia as a group activity. Patients sometimes report "trying it with a friend;" notes are compared, particularly techniques of purging. (p. 112)

Socio-cultural researchers have speculated that one of the reasons bulimia spreads so quickly on the college campus is female students' preoccupation with "fitting in" in the college social scene (e.g., Crandall 1988; Gordon 1990; Grissett and Norvell 1992; Striegel-Moore, Silberstein, and Rodin 1993). One of the most in-depth studies into this phenomenon was conducted by Striegel-Moore et al. (1993). Their study considered the social self as a contributor to bulimia. In their study of 34 bulimic women the authors found a strong link between social-self concerns and bulimia. They concluded that there is "empirical support for the clinical theory postulating that social-self dysfunction plays an important role in bulimia nervosa" (p. 300). Grissett and Norvell (1992) found bulimics to be dissatisfied with their social networks and, therefore, to feel more inadequate and alienated from others. In her study, Dickstien (1989) concluded that the college environment causes some females to participate in bulimic behavior because they are striving to be accepted in the college social scene.

Socio-cultural researchers have found social locations on the college campus that have a disproportionately high

incidence of bulimia. One social location they have found is the social sorority. In his study of two social sororities, Crandall (1988) found bulimic behavior to be the norm rather than the exception. He also found the incidence of bulimia to be significantly higher in the sororities than in two all-female dormitories. Gordon (1990) has also identified the social sorority as a problem area where bulimia spreads very quickly.

The sorority is a breeding ground for eating disorders, given the emphasis of most sisters towards social life, the resulting preoccupation with physical appearance, and, of course, the competition. (p. 113)

There is a disproportionately high incidence of bulimia among cheerleaders, dancers, and gymnasts. Researchers have speculated that their concern with public appearance has exacerbated the problem among these groups (e.g. Crandall 1988; Gordon 1990; Morgan et al. 1990). Crandall (1988) has indicated that athletic teams and cheerleading squads will develop social norms which help bulimia to flourish. In their study of the incidence of bulimia among athletes and non-athletes Taub and Blinde (1992) found the incidence of bulimia to be significantly higher among athletes.

Although socio-cultural researchers have found certain correlates and problem areas involved with bulimia, they have not analyzed their combined association with bulimia. The Morgan et al. (1990) study did look specifically at these factors, but their findings are in need of verification if generalizations are to be made. It was the

purpose of this thesis to examine the relation between these correlates and bulimia to determine whether or not the findings of past research applied to a medium-sized, border-state university. In the next chapter I will discuss the methodology used to test the symbolic interactionist perspective. Many of the findings of past research have helped me to construct a questionnaire which addresses concerns suggested by previous researchers.

CHAPTER IV

METHODOLOGY

In the previous sections I have related bulimia to certain social identities. I have also related bulimia to attitudes that come from the self concepts of females with these social identities. This section relates to my predictions, based on the theory and the literature review, and how these hypotheses were tested.

Hypotheses

Based on the symbolic interactionist theoretical perspective and the review of the literature, the following hypotheses were tested:

Social Identity

- H₁: Females from larger home communities are expected to have a higher incidence of bulimia than are those from smaller home communities.
- H₂: White females are expected to have higher incidence of bulimia than are nonwhite females.
- H₃: Females with mothers with higher levels of education are expected to have a higher incidence of bulimia than are those whose mothers have lower levels of education.
- H₄: Females with fathers with higher levels of education are expected to have a higher incidence of bulimia than are those whose fathers have lower levels of education.

- H₅: Females with a lower academic class rank are expected to have a higher incidence of bulimia than are those with a higher academic class rank.
- H₆: Sorority members are expected to have a higher incidence of bulimia than are non sorority members.
- H₆: Females who participate in gymnastics, dance, and cheerleading are expected to have a higher incidence of bulimia than are those who do not participate in those activities.
- H₇: Females who attend more parties are expected to have a higher incidence of bulimia than are those who attend fewer parties.

Self Concept

- H₈: Females who are more concerned with their physical attractiveness are expected to have a higher incidence of bulimia than are those who are less concerned with their physical attractiveness.
- H₉: Females who are more concerned with being thin are expected to have a higher incidence of bulimia than are those who are less concerned with being thin.
- H₁₀: Females who have more negative attitudes toward obese people are expected to have a higher incidence of bulimia than are those with less negative attitudes toward obese people.
- H₁₁: Females who are more likely to feel that their social life is linked to their remaining thin are expected to have a higher incidence of bulimia than are those who are less likely to feel that their social life is dependent on their staying thin.
- H₁₂: Females who are more likely to feel that their relationships with men are dependent on their staying thin and being attractive are expected to have a higher incidence of bulimia than are those who are less likely to feel that their relationships with men are dependent on their staying thin.

H₁₃: Females who are less satisfied with their social lives are expected to have a higher incidence of bulimia than are females who are more satisfied with their social lives.

Sample

A convenience sample was drawn consisting of female students attending their monthly sorority meetings and a general population of females in classes from different colleges in the university. The original plan had been to survey women in the residence halls instead of the classes, but the plan had major complications that made it impossible to follow. The first complication was that I needed a high response rate that is easy to achieve in the classroom setting or at a sorority meeting but is very difficult to achieve in the residence halls. Because the residence hall meetings are very loosely structured, the researcher is totally at the mercy of the respondents' voluntary participation. Second, I had to insure that the test conditions allowed the respondents to fill out the questionnaires in private because I wanted to minimize the effects of denial on their responses. In the residence hall setting the respondent is constantly bombarded by outside distractions: friends of the respondents coming and going, loud conversations, other activities going on, etc. Therefore, the researcher is unable to control for the many factors that would adversely affect a serious response to the questionnaire.

Although the data requirements of crosstabulation and logistic regression require a random sample, I opted to use a convenience sample because the incidence of bulimia in the general college population is small (less than 10 percent; Mintz and Betz 1988). The incidence would be even smaller if one were to include males in the study. I elected to study only females because past research has indicated the percent of male bulimics to be less than 10% of all bulimics (Crandall 1988; Gordon 1990; Hesse-Biber 1989). Therefore, I would have needed an extremely large sample in order to do any statistical analysis on the male bulimic group. Obtaining a sample this large at the university I selected would be nearly impossible.

I decided to select a large number of sorority women because past research had indicated that I would find a larger number of bulimics in that population than in the non-sorority population (Crandall 1988; Gordon 1990). In order to find enough women who were bulimic I had to go to the populations where I expected to find them. If I had been unable to identify enough bulimics, I would have been unable to do any statistical analysis; and, therefore, the study would have had to have been drastically changed. Moreover, I was not seeking to measure either incidence or prevalence, for which a random sample would have been crucial. Measurement of correlates could be accomplished only with adequate numbers of bulimics. Therefore, a random

sample would not have been an effective sampling technique in this study. Nevertheless, I attempted to increase the representative ability of my sample by seeking a diverse population in the classroom.

The classes to which I administered the questionnaire consisted of both upper-division and lower-division classes in the four colleges in the university. Classes from every college in the university were selected so that I could obtain females with a range of academic concentrations. The males in these classes were asked to leave so that only the females would fill out the survey.

All respondents were given a 31-item questionnaire that was administered during the fall semester of 1994 (see Appendix A). At both the sorority meetings and at the classes the respondents were told that their responses were totally confidential and that they would not be identified by their responses. Respondents provided information on their demographic backgrounds, their social activities at college, and their attitudes about themselves and about being thin. The last part of the questionnaire contained a checklist relating to their eating behavior, which included bulimic behaviors. The other items on the checklist that were not considered bulimic per se were designed to combat the problem of denial, which is persistent in bulimics (Gordon 1990). Telling the respondents exactly what I was looking for could have created the "Hawthorne effect" that

might have caused some of the respondents not to report their actual behavior.

Dependent Variable

In this study the dependent variable was bulimia. Bulimia was measured by the respondent indicating that she had either forced herself to vomit after eating or used laxatives after eating. The instrument used in this study was not designed to give a diagnosis of bulimia in a clinical sense. There are two basic reasons for this decision. The first is that there is no widely accepted test or scale that can give a clear diagnosis of bulimia (Mintz and Betz 1988). Almost all of the studies in the literature review use scales of different lengths, ranging from a one question in the Morgan et al. (1990) study to a 26-item scale used in the Striegel-Moore et al. (1993) study. The second reason is that in order to even come close to a diagnosis of bulimia I would be required to have an extremely long questionnaire, one that would be very difficult to administer to 500 people. That level of accuracy is beyond the scope of this thesis.

The two indicators used to operationalize the dependent variable were chosen in accordance with the Diagnostic and Statistical Manual's (American Psychiatric Association 1980) diagnostic criteria of bulimia. I chose to measure only the purging aspect of these criteria because of the difficulty in getting accurate data on the binging aspect.

Accumulating accurate data on the individual's body weight, daily caloric intake, and frequency of eating would have required a much more detailed instrument, which was not conducive to the exploratory nature of this thesis.

The frequency of purging was not examined because the focus of this thesis was to compare the differences between females who have participated in bulimic behavior and those who have not. I did not focus on the differences in the extremes of bulimic behavior. Using laxatives or vomiting is the most common way bulimics purge (e.g., Crandall 1988; Gormally et al. 1982; Morgan et al. 1990). Moreover, almost all of the bulimia studies I examined asked the respondents if they had forced themselves to vomit or had used laxatives (e.g., Bilich 1989; Crandall 1988; Grissett and Norvell 1992). Therefore, these behaviors were seen as the main features of the disorder and the ones I used to operationalize bulimia.

Independent Variables

The first set of independent variables I examined consisted of the "social identity" variables. These relate to the social positions the respondents occupy. These variables were: size of home community, class rank, race, mother's and father's levels of education, membership in a social sorority, participation in various types of athletic activities, and quantity of social activity.

Size of home community was coded "rural or farm area" = 1, "small town (under 20,000 people)" = 2, "large town or city (20,000-40,000 people)" = 3, "medium city/metro area (40,000-80,000 people)" = 4, "large city/metro area (over 80,000 people)" = 5. Class rank was coded "freshman" = 1, "sophomore" = 2, "junior" = 3, "senior" = 4, "graduate" = 5, "other" = 6. Race was coded "white" = 1, "black" = 2, "other" = 3. Mother's level of education and father's level of education were coded as follows: "less than seven years of school" = 1, "junior high school" = 2, "some high school" = 3, "high school graduate" = 4, "some college" = 5, "college graduate" = 6, "graduate school" = 7. Sorority membership was coded "yes" = 1, "no" = 2. Participation in athletics was coded "gymnastics" = 1, "dance" = 2, "cheer leading" = 3, "Topperetts" = 4, "none of the above" = 5 (the Topperetts is an organization of gymnastic dancers on the campus I studied). Social activity (measured by the number of parties the individual attended) was coded "8 times or more a month" = 1, "5 to 7 times a month" = 2, "3 to 4 times a month" = 3, "1 to 2 times a month" = 4, "never" = 5.

The second set of independent variables I examined included the "self concept" variables. These relate to the individual's construction of "self" as discussed by James, Cooley, Mead, etc. These items were adapted from similar items used by Grissett and Norvell (1992) and Striegel-Moore

et al. (1993) to measure bulimics' attitudes toward being thin and the connection of these attitudes to their self concepts. These items were measured along a five-point, Likert-type scale ranging from "strongly disagree" to "strongly agree" (coded 1-5); "don't know" was coded 3.

The items were as follows:

- Being physically attractive is very important to me.
- Being thin is very important to me.
- I will do anything it takes to avoid becoming overweight.
- People who are overweight have brought that condition on themselves.
- Obese people make bad friends.
- In general, obese people do not get far in life.
- If I were to gain too much weight, I think I would lose a lot of my friends.
- I think that my romantic relationships with men are dependent on how physically attractive I am.
- I think that if I were to gain too much weight, men would lose interest in me.
- I think my social life in general is dependent on staying thin.

The last of the "self concept" variables, satisfaction with social life, was coded "very satisfied" = 1, "satisfied" = 2, "undecided" = 3, "not very satisfied" = 4, "not at all satisfied" = 5.

Analysis

The procedure known as crosstabulation was used in order to obtain the zero order relations of each of the

independent variables with the dependent variable. In addition to this procedure, a step-wise, logistic regression was used to examine the relations between the independent variables and the dependent variable. In this procedure the independent variables were entered into the regression equation one at a time. Independent variables that were not significantly related to bulimic behavior were dropped from the analysis. Therefore, only those independent variables that were significantly related to bulimic behavior were included in the final regression equation. This procedure enabled me to find those independent variables having the most predictive capabilities while controlling for the independent variables that did not. The products of a logistic regression are expressed in terms of chi-square and odds ratios. This procedure enabled me to show the probability of a woman participating in bulimic behavior based on a particular independent variable.

Because the dependent variable, bulimia, was a dichotomous variable in this study, the logistic regression was chosen, for it is well suited for dichotomous variables. Linear multiple regression, on the other hand, is better suited for continuous variables. In order to dichotomize the independent variables, dummy variables (coded 0 and 1) were constructed so that they could be included in the analysis.

Chapter V

Analysis

In order to understand the social factors associated with bulimia, questionnaires were administered to sorority members at their monthly meetings and to female students in different classes in the university. Crosstabulations and logistic regression were used in the analysis of the data obtained from the questionnaire. In this chapter I discuss the results of these analyses. In order to determine any support for the hypotheses, I first examined the results of the crosstabulations. I then proceeded by using the logistic regression to explore the effects each of the independent variables had on the dependent variable while controlling for the effects of the other independent variables.

Crosstabulations

Crosstabulations were used in order to analyze the effects of the independent variables on bulimic behavior. Results of each crosstabulation were considered to be significant if the chi-square had a probability of .05 or less. Due to the essentially exploratory nature of this research project, I decided to limit the initial stage of

the analysis to a chi-square test of significance only. Because the expected frequencies in some of the larger tables were less than five, values of tables were collapsed into fewer meaningful categories in order to obtain a reliable chi-square value and to give a clearer presentation of the results. Collapsing was accomplished by dichotomizing the values of the independent variables.

Table 1. Presence and Absence of Bulimia by Belief in the Importance of Avoiding Becoming Overweight (Percentage)

Bulimic	It Is Important to Avoid Becoming Overweight	
	Agree	Not agree
YES	20.6	5.1
NO	79.4	94.9
TOTAL	100.0	100.0
(N)	(295)	(131)
Chi-square = 22.89	d.f. = 1	p. < .01

An examination of the data in Table 1 confirms that there is a significant relation between agreement with the statement about the importance of avoiding becoming overweight (see item #12 on questionnaire) and being bulimic. The Likert-type scale used to measure the response to the statement was collapsed into "agree" and "not agree." The "agree" category included those individuals who

indicated they either agreed or strongly agreed with the statement. The "not agree" category included those individuals who indicated that they strongly disagreed, disagreed, or were undecided about the statement. When one compares the respondents who agreed with those who did not agree with the statement, one finds that a significantly higher percentage of those who agreed with the statement were bulimic (20.6%) than were those who did not agree with the statement (5.1%) (chi-square = 22.89, $p < .01$).

Table 2. Presence and Absence of Bulimia by Belief That Friends Lost if One Becomes Overweight (Percentage)

Bulimic	Would Lose Friends If Become Overweight	
	Agree	Not agree
Yes	29.2	8.7
No	70.8	91.3
Total	100.0	100.0
(N)	(24)	(402)
Chi-square = 8.49	d.f. = 1	p. < .01

The data show that those who agree with the statement, "I will do anything it takes to avoid becoming overweight," are more likely to report being bulimic than are those who do not agree with the statement.

In Table 2 the data show there is a significant relation between agreement with the statement about losing one's friends if one becomes overweight (see item #16 on questionnaire) and being bulimic. Those respondents who agree with the statement are much more likely to be bulimic than are those who did not agree with the statement (29.2% and 8.7%, respectively, chi-square = 8.94, $p. < .01$).

Table 3. Presence and Absence of Bulimia by Belief That Romantic Relationships with Men Dependent on Being Attractive (Percentage)

Relationships with Men Dependent on Being Attractive		
Bulimic	Agree	Not Agree
Yes	14.1	5.6
No	85.9	94.4
Total	100.0	100.0
(N)	(213)	(213)
Chi-square = 7.63	d.f. = 1	p. < .01

As indicated in Table 3 there is a significant difference between agreement and disagreement with the statement about one's romantic relationships with men being dependent on how attractive one is (see item #17 on questionnaire) and being bulimic. A higher percentage (14.1%) of those who agreed with the statement were bulimic

than were those who disagreed with the statement (5.6%) (chi-square = 7.63, $p. < .01$).

In Table 4 the data show that there is a significant difference between agreement with the statement about men losing interest in the respondent if she gained too much weight (see item #18 on questionnaire) and being bulimic.

Table 4. Presence and Absence of Bulimia by Belief in Men Losing Interest if Too Much Weight Gained (Percentage)

Men Will Lose Interest If Too Much Weight Gained		
Bulimic	Agree	Not agree
Yes	12.9	4.1
No	87.1	95.9
Total	100.0	100.0
(N)	(275)	(151)
Chi-square = 7.31	d.f. = 1	$p. < .01$

Of the respondents who agreed with the statement a higher percentage (12.9%) were bulimic than were those who did not agree with the statement (4.1%) (chi-square = 7.30, $p. < .01$).

An investigation of the data in Table 5 reveals that there is a significant difference between sorority and non-sorority women (see item #6 on questionnaire) in terms of

bulimia. Of the sorority members a higher percentage were bulimic than were non-sorority members (12.4% and 5.3%, respectively, chi-square = 4.71, $p. < .05$).

A significant difference in the respondent's mother's level of education (see item #4 on questionnaire) and being bulimic is shown in Table 6. The categories of mother's level of education were collapsed into "high school or less" (coded 1), and "some college" (coded 0). "High school or

Table 5. Presence and Absence of Bulimia by Sorority Membership (Percentage)

Bulimic	Sorority Member	
	Yes	No
Yes	12.4	5.3
No	87.6	94.7
Total	100.0	100.0
(N)	(275)	(151)
Chi-square = 4.71	d.f. = 1	$p. < .05$

less" included those individuals who indicated that their mothers had less than seven years of school, junior high school, some high school, or were high school graduates. "Some college" consisted of those individuals who indicated that their mothers had some college, were college graduates, or had gone to graduate school. Of the respondents whose

mothers had at least some college, a higher percentage (12.6%) were bulimic as opposed to those whose mothers had earned a high school diploma or less (4.7%) (chi-square = 6.0, $p. < .05$).

None of the crosstabulation analyses relating to size of home community, academic class rank, race, father's level of education, participation in athletic activities,

Table 6. Presence and Absence of Bulimia by Mother's Level of Education (Percentage)

Bulimic	Mother's Educational Level	
	Some College	High School or Less
Yes	12.6	4.7
No	87.4	95.3
Total	100.0	100.0
(N)	(277)	(149)
Chi-square = 6.0 d.f. = 1 $p. < .05$		

frequency of going to parties, or satisfaction with social life in college were significant. Moreover, the crosstabulation analyses did not find significant differences in the belief in the importance of being attractive (see item #10 on the questionnaire), the importance of being thin (item #11), overweight people bringing their condition on themselves (item #13), obese

people being bad friends (item #14), obese people not getting far in life (item #15), and one's social life being dependent on being thin (item #19) in terms of bulimia.

The following is a summary of the findings of the crosstabulation analysis:

1. A higher percentage of those who agreed that they will do anything it takes to avoid becoming overweight were bulimic than were those who did not agree.
2. A higher percentage of those who agreed that if they become overweight they would lose a lot of their friends were bulimic than were those who did not agree.
3. A higher percentage of those who agreed that their romantic relationships with men were dependent on them being attractive were bulimic than were those who did not agree.
4. A higher percentage of those who agreed that if they gained too much weight, men would lose interest in them were bulimic than were those who did not agree.
5. A higher percentage of sorority members were bulimic than were non-sorority members.
6. A higher percentage of those whose mothers had higher levels of education were bulimic than were those whose mothers had lower levels of education.

Logistic Regression Analysis

For the purposes of the logistic regression the independent variables were dichotomized in order to enhance the analysis. The Likert-scale items were collapsed in the same way as "importance of avoiding becoming overweight" with "agree" (coded 1) and "not agree" (coded 0). Father's level of education was collapsed the same way that mother's

level of education had been collapsed. Size of home community was collapsed into "rural" (coded 1) and "urban" (coded 0). "Rural" included those individuals who indicated that they lived in either a rural or farm area or a small town. The second category, "urban," included those individuals who indicated they lived in a large town or city, medium city/metro area, or large city/metro area.

Academic class rank was collapsed into "underclassmen" (coded 1) and "upperclassmen" (coded 0). The freshman and sophomore categories were collapsed into "underclassmen" while the juniors, seniors, graduates, and others were included in the "upperclassmen" category. Race was collapsed into "white" (coded 1) and "non-white" (coded 0). The collapsed category "non-white" included the former "black" and "other" categories. Participation in athletics was collapsed into "active" (coded 1) and "not active" (coded 0). The "active" category was considered those individuals who indicated they had participated in either gymnastics, dance, or cheerleading or were Topperetts. The other category, "not active," included those individuals who indicated they had not participated in the stated athletic activities.

Responses to the question concerning how many parties the individual attended were collapsed into "frequent" (coded 1) and "not frequent" (coded 0). The "frequent" category contained those individuals who attended parties

three or more times per month while those who attended fewer than three parties per month were included in the "not frequent" category. Satisfaction with social life in college was collapsed into "satisfied" (coded 1), which was considered those individuals who indicated they were either very satisfied or satisfied with their social lives, and "not satisfied" (coded 0), which was considered those individuals who were undecided, not very satisfied, or not at all satisfied with their social lives.

The recoded independent variables were then analyzed using a logistic model to explain bulimia. Because the step-wise method was chosen, only variables that were significantly related to bulimia at the .05 level are included in the regression equation. The following social identity variables dropped out of the regression equation: size of home community, race, mother's and father's level of education, participation in athletic activities, frequency of going to parties, and academic class rank. The following self concept variables--importance of being physically attractive, importance of being thin, overweight people bringing their condition on themselves, obese people being bad friends, obese people not getting far in life, losing friends if one becomes overweight, men losing interest if one gain too much weight, and social life being dependent on being thin--also dropped out of the regression equation.

Table 7 summarizes the significant findings of the logistic regression.

As can be seen in Table 7, four of the remaining independent variables were significant at the .05 level.

Table 7. Results of the Logistic Regression: Wald Chi-square, Probability, and Odds Ratios between Bulimia and the Independent Variables

Independent Variable	Wald Chi-square	Probability	Odds Ratio
(X1) Importance of Avoiding Becoming Overweight (self concept)	19.61	.00	5.24
(X2) Satisfaction with Social Life (self concept)	10.46	.00	.25
(X3) Sorority Membership (social identity)	7.81	.00	3.62
(X4) Romantic Relations with Men Dependent on Being Attractive (self concept)	4.18	.04	2.15

Taking all of the independent variables into account the importance of avoiding becoming overweight, sorority membership, and romantic relations with men remain significant predictors of bulimia.

Satisfaction with social life emerged as a significant predictor of bulimia when all of the other independent variables were taken into account. In the bivariate

correlations, however, it was not a significant predictor of bulimia. The direction of the relation between satisfaction with social life is negative, indicating that bulimics are less satisfied with their social lives.

The odds ratio for sorority membership indicates that sorority members are almost four times as likely to be bulimic (3.62 to 1) as are non-sorority members. Moreover, those who agree that they will do anything it takes to avoid becoming overweight are five times as likely to be bulimic (5.24 to 1) as those who do not agree. Those who agree with the statement that their romantic relationships with men are dependent on being physically attractive themselves are twice as likely to be bulimic (2.15 to 1) as are those who do not agree. By taking the reciprocal of the odds ratio on satisfaction with social life one can see that those who are less satisfied with their social lives in college are four times as likely to be bulimic as is someone who is more satisfied with her social life.

All of the significant independent variables together produce the following regression equation:

$$L'_i = -3.3375 + 1.656(X1) - 1.3961(X2) + 1.2877(X3) + .7641(X4)$$

$$P_{y=1} = e^{L_i} / 1 + e^{L_i}$$

The above regression equation is used to compute the probability of a woman being bulimic if she agrees that she will do anything it takes to avoid becoming overweight, is not satisfied with her social life, is a sorority member,

and agrees that her romantic relationships with men are dependent on her being physically attractive.

$$L'_i = -3.3375 + 1.656(1) - 1.3961(0) + 1.2877(1) + .7641(1) = .3703$$

$$P_{y=1} = e^{.3703} / 1 + e^{.3703} = .59154$$

According to the result of this equation, the probability of a woman being bulimic if she possesses the qualities above is .59. By using the same equation one can compute the probability of a woman being bulimic if she does not possess the qualities above.

$$L'_i = -3.3375 + 1.656(0) - 1.3961(1) + 1.2877(0) + .7641(0) = -4.7336$$

$$P_{y=1} = e^{-4.7336} / 1 + e^{-4.7336} = .0087$$

Therefore, if one does not agree that she will do anything it takes to avoid becoming overweight, is not a sorority member, does not agree that her romantic relationships with men are dependent on her being physically attractive, and is satisfied with her social life in college, her probability of being bulimic is .01.

In summary, two self concept variables--the importance of avoiding becoming overweight and romantic relationships with men being dependent on staying thin--are significant predictors of bulimia in both the crosstabulations and the logistic model. The other self concept variables--men losing interest with them if they gain too much weight and losing their friends if they gain too much weight--failed to attain significance when the other independent variables

were taken into account in the logistic model. Another self-concept variable--satisfaction with social life, although not attaining significance in the crosstabulation analysis--did emerge as a significant predictor of bulimia when the other independent variables were taken into account in the logistic model. The only social identity variable that was significant in both the crosstabulations and the logistic regression was sorority membership. Mother's level of education, another social identity variable, was significant only in the crosstabulations.

CHAPTER VI
DISCUSSION AND CONCLUSIONS

The purpose of this research has been to investigate the social dimensions of bulimia. This investigation was accomplished by examining women's social identities and self concepts in relation to bulimia. The symbolic interactionist perspective was used to examine bulimia as a socially constructed line of action. Viewing women's eating behavior from the symbolic interactionist vantage point, it was hypothesized that women with particular social identities and self concepts would be more prone to bulimia than would other women on the college campus. College women were surveyed on their social identities, attitudes related to their self concepts, and their eating behaviors in order to test the validity of this theory. The findings suggest that women with certain social identities and self concept attitudes are, indeed, more likely to develop bulimia as a line of action than are other women on the college campus.

Findings

The self concept attitude variables turned out to be the most fruitful in terms of their association with bulimia. In both the crosstabulations and the logistic

regression they were the most heavily represented. Only two hypotheses dealing with the self concept received no support from the analyses. The fact that significant differences were not found in the importance of being physically attractive (see item #10 on questionnaire), the eighth hypothesis, could have been due to physical attractiveness being an important attribute to most college females, especially sorority members who were disproportionately sampled in this study. It also suggests that a stronger statement dealing with the importance of being physically attractive should be used in the future.

The three statements dealing with the tenth hypothesis about the negative attitudes toward obese people (see items #13, #14, #15 on questionnaire) also failed to show significant differences between bulimics and non-bulimics, suggesting that this is not an important component of the bulimic's self concept. The number of respondents who agreed with these statements was so low that it does not even seem useful to revisit these items in the future.

Strong support was shown for the ninth hypothesis dealing with the importance of being thin. The importance of avoiding becoming overweight (see item #12 on questionnaire) proved to have the strongest association with bulimia of any of the variables. The absence of significant differences between bulimics and non-bulimics in their responses to the statement, "Being thin is very important to

me," may be due to the fact that thinness, like physical attractiveness, is a major concern for college women in general, especially sorority members. Therefore, significant differences were not found in this indicator of the ninth hypothesis because most women on campus place a great deal of importance on this attribute. When the stronger statement, "I will do anything it takes to avoid becoming overweight," was introduced, the differences in bulimics and non-bulimics became much more pronounced. This difference indicates that being thin is much more central to the bulimic's self concept than to that of the non-bulimics.

Support was also found for the twelfth hypothesis dealing with the respondents' romantic relationships with men being dependent on the women being thin and attractive. In the crosstabulations significant differences were found in the way bulimics and non bulimics felt about this issue. In both of the items dealing with this hypothesis (see items #17 and #18 on questionnaire) significant differences were found in the way bulimics and non bulimics responded to the statements: "I think that my romantic relationships with men are dependent on how physically attractive I am" and "I think if I were to gain too much weight, men would lose interest in me." In the logistic regression, however, only the first statement retained its associative qualities, indicating that being thin and being attractive are highly related to each other. Even so, this finding suggests that

being thin and attractive is so central to the bulimics' self concept, that they are much more likely to feel their relationships with men are dependent on physical appearance than are non-bulimics.

In terms of the eleventh hypothesis only marginal support for its validity was given by the analysis. Of the two items that were used to test this hypothesis (see items #16 and #19 on questionnaire), only the item dealing with losing friends if one gains too much weight (item #16) yielded significant differences. In the crosstabulations responses of bulimics and non bulimics differed significantly to the statement: "If I were to gain too much weight, I think I would lose a lot of my friends." In the logistic regression, however, this variable failed to attain significance, thus suggesting only marginal support for the eleventh hypothesis.

Satisfaction with social life, the thirteenth hypothesis, is supported in the logistic regression but not in the crosstabulations. The direction in the logistic regression is negative which gives support to the hypothesis' suggestion that bulimics would be less satisfied with their social lives than would non bulimics. This finding supports the research of other socio-cultural researchers of bulimia (Striegel-Moore et al. 1993; Grissett and Norvell 1992). The fact that it does not attain significance in the crosstabulations may be due to other

variables related to social life--such as losing friends if one becomes overweight and social life being dependent on being thin--that may be strongly related to a female's dissatisfaction with her social life. Therefore, when all of these variables are taken together in the logistic regression, satisfaction with social life emerges as the dominant variable associated with bulimia. This finding suggests that bulimics are less satisfied with their social lives, which may imply that bulimics may be induced into their line of action as a means of improving their social lives.

In terms of the social identity hypotheses only sorority membership and mother's level of education yielded significant differences between bulimics and non-bulimics. In contrast to other studies race was not found to be significantly related to bulimia. This lack of association could have been due to the small number of non-white cases. It might also be that on a college campus, which contains a relatively homogeneous population, racial differences--which are really likely to be social class differences--diminish.

Also, in contrast to other studies participation in dance, gymnastics, and cheerleading were not found to be significantly related to bulimia. Once again, this could have been due to a proportionately small number of females in the sample who participated in these activities. One must not, however, rule out the possibility that denial may have

been a contributing factor in this finding. Goffman (1963) and Mechanic (1968) have speculated that individuals who have deviant physical and psychological problems may choose to hide their behavior from others in order to prevent negative repercussions. The hiding of bulimic behavior may have been the case with the dancers, gymnasts, and cheerleaders.

Significant differences were not found between bulimics and non-bulimics in terms of size of home community, academic class rank, frequency of going to parties, and father's level of education. Although no research has been done on the relation between size of home community and bulimia, I speculated that females from larger home communities would have a greater inclination toward bulimia than those from smaller home communities because women from rural areas may have held different values in terms of thinness. On the other hand, if I had accepted the conceptions of Striegel-Moore et al. (1993), the relation between size of home community and bulimia would have been expected to be reversed because women from these smaller home communities may be striving more to "fit in" to the college social scene than are those women from larger home communities.

The analysis also failed to find significant differences between academic class ranks in terms of the incidence of bulimia among them. The relation between

academic class rank and bulimia was examined because of the research of Striegel-Moore et al. (1993). In this study they speculated that bulimia can be explained by females trying to "fit in" to the college social scene. Therefore, it was hypothesized that underclassmen would be striving harder to be accepted and, therefore, be more prone to bulimia. My research suggests that academic class rank is not a predictor of bulimia. Findings, however, could have been influenced by the many nontraditional students in the sample.

Father's level of education and mother's level of education were used in order to give some sort of measure of social class. Self-reported social class was examined by Morgan et al. (1990) and produced inconclusive findings. In this study I attempted to measure one aspect of social class in order to examine its relation to bulimia. Because mother's level of education was correlated with bulimia, the social class connection is probably indicated. The fact that father's level of education was not found to be significantly related to bulimia may be due to the incomplete operationalization of social class. The use of a single predictor of social class presents less convincing evidence than would a combination of factors. However, it is also possible that mother's social class is more influential because mothers have traditionally had greater

influence on their daughters--through more extensive interaction--than have fathers.

Significant differences were not found in frequency of going to parties in terms of bulimia, possibly due to the fact that a party was not specifically defined in the questionnaire. Therefore, the respondent's own interpretations may have had an effect on this relation. Frequency of going to parties was used to measure social activity. Based on the theory, it was expected that bulimics would be more socially active because they were striving harder to be accepted in the college social scene and were, therefore, going to more parties. Future research needs to differentiate among kinds of social activity.

The findings related to sorority membership and bulimia support the sixth hypothesis, which states that the incidence of bulimia is expected to be higher among sorority members than non sorority members. In both the crosstabulations and the logistic regression sorority membership is associated with bulimia. This finding supports other research by Crandall (1988) and Gordon (1990) which has found sorority membership to be associated with bulimia. It is not supportive of the research of Morgan et al. (1990) that did not find a significant relation between sorority membership and bulimia. This association suggests that sorority members may be more prone to develop bulimia

as a line of action because the group norms of sorority members put a great deal of importance on being thin.

Mother's level of education, the third hypothesis, was supported in the crosstabulation, but not in the logistic regression. Therefore, only marginal support was given for this hypothesis. As with father's level of education, this limited support may be due to the fact that mother's level of education is part of larger social class factors that some researchers have speculated are associated with bulimia (e.g. Crandall 1988; Morgan et al. 1990). Therefore, when other social class variables, such as father's level of education, are included in the logistic regression mother's level of education fails to attain significance. The fact that significant differences were found in mother's level of education indicates that this aspect of social class should be studied in further research on bulimia.

In examining the results of the analysis one can draw some general conclusions about which social identities and attitudes about the self concept are most strongly related to bulimia. In terms of social identity a sorority member is more prone to use bulimia as a line of action in order to achieve a socially desirable body weight than is a non-sorority woman. Given the great importance that sorority members place on being thin and physically attractive, it is not surprising that this social identity is related to the development of bulimia as a line of action.

If we also consider the self concepts of the women who are bulimic, some patterns emerge as well. The data suggest that women who are more extreme in their attitudes about being thin are the ones who are most likely to be bulimic. Their "social esteem," as Rosenberg (1981) puts it, is dependent on their being thin to such a degree that they will do "anything it takes to avoid becoming overweight." One can see this concern linked to the bulimic's romantic relationships with men. The data suggest that being attractive (which goes hand in hand with being thin) is perceived as a crucial factor in the bulimic's relationships with men moreso than it is in non-bulimics.

Finally, we see that bulimics are less satisfied with their social lives, indicating a lack of security in the magnitude of their social esteem. According to Rosenberg, social esteem is linked to self-esteem. The resulting low self-esteem is perhaps the reason why women have internalized the cultural value of thinness to such a degree that they develop a deviant line of action (bulimia) in order to achieve it.

In conclusion, the data suggest that there are, in fact, certain social identities and attitudes related to the self concept which may encourage the bulimic line of action, thus giving support for the validity of the symbolic interactionist theoretical framework's ability to explain the social dimensions of bulimia. The data, therefore, give

support to those who view bulimia not just as a medical and psychological problem but also as a social problem.

Limitations of the Study

One of the major limitations of this study and a limitation in most studies on bulimia was the absence of an agreed-upon, operational definition of bulimia. Because this research was largely exploratory, extremes of bulimic behavior were not tested. Moreover, specific scales were not used to measure self concept variables, such as the importance of being physically attractive and satisfaction with social life. The reliance on single, specific statements to measure aspects of self concept produced conflicting results. One can see this problem in the inability of the statement relating to the importance of being physically attractive to show significant differences between bulimics and non-bulimics. The reason for this failure is that being physically attractive is important to most women, but bulimics are extreme in their attitude toward its importance. Therefore, scales should be developed to measure the extremes of these attitudes in order to show significant differences between bulimics and non-bulimics.

Attention should also be paid to the sampling design. Because a disproportionate number of sorority members were selected, I was unable to show the overall incidence of bulimia on this campus. This disproportionate sampling

could be a reason why many of the social identity variables did not attain significance. In order to measure incidence and prevalence a random sample would have been necessary.

Although this study has limitations, the findings are valuable and give insight into the social factors associated with bulimia. They show there is a definite link between the individual's social environment and the development of bulimia as a line of action.

Suggestions for Further Research

It is suggested that further research develop a clearer understanding of the development of the bulimic's self concept because self-concept is critical in the development of bulimia as a line of action. Also, a reliable way of measuring bulimia should be developed. Scaling techniques could provide a solution to this problem. This research suggests that certain statements such as "I will do anything it takes to avoid becoming overweight" are good predictors of the bulimic's development of her self concept because they measure the extremes of the importance of being thin. Other statements such as "being thin is very important to me" fail to yield significant results because this pressure is on all women, not just bulimics. Therefore, scaling techniques should measure extremes in these attitudes.

The results of this study suggest that bulimia can be studied sociologically. There are, in fact, social factors

associated with the disorder, and these factors should be studied further in order to give support to the socio-cultural approach to studying bulimia. It also suggests that these factors be taken into account when examining the physiological and psychological causes of bulimia.

APPENDIX
STUDENT QUESTIONNAIRE

The following questions are designed to survey female students' social backgrounds and eating habits. For each of the following questions put a check in front of the appropriate response. **DO NOT WRITE YOUR NAME ANYWHERE ON THE QUESTIONNAIRE.** Your answers will be strictly confidential, and you will not be personally identified from your responses. Thank you for your time.

1. What is the size of your home community?
 Rural or farm area
 Small town (under 20,000 people)
 Large town or city (20,000-40,000 people)
 Medium city/metro area (40,000-80,000 people)
 Large city/metro area (over 80,000 people)

2. What is your classification?
 Freshman Senior
 Sophomore Graduate
 Junior Other

3. How would you classify yourself in terms of your race?
 White
 Black
 Other

4. What was the highest level of education that your mother completed?
 Less than seven years of school
 Junior high school
 Some high school
 High school graduate
 Some college
 College graduate
 Graduate school

5. What was the highest level of education that your father completed?
- Less than seven years of school
 - Junior high school
 - Some high school
 - High school graduate
 - Some college
 - College graduate
 - Graduate school
6. Are you currently a member of a social sorority?
- Yes
 - No
7. Which of the following activities have you participated in while you have been in college?
- Gymnastics
 - Dance
 - Cheer leading
 - Topperetts
 - None of the above
8. How often do you attend parties?
- 8 times a month or more
 - 5 to 7 times a month
 - 3 to 4 times a month
 - 1 to 2 times a month
 - Never
9. How satisfied are you with your social life at college?
- Very satisfied
 - Satisfied
 - Undecided
 - Not very satisfied
 - Not at all satisfied

For the following statements, please indicate whether you strongly agree (SA), agree (A), are undecided (U), disagree (D), or strongly disagree (SD) with them by circling the response.

10. Being physically attractive is very important to me. SA A U D SD
11. Being thin is very important to me. SA A U D SD
12. I will do anything it takes to avoid becoming overweight. SA A U D SD
13. People who are overweight have brought that condition on themselves. SA A U D SD

- | | | | | | |
|--|----|---|---|---|----|
| 14. Obese people make bad friends. | SA | A | U | D | SD |
| 15. In general, obese people do not get far in life. | SA | A | U | D | SD |
| 16. If I were to gain too much weight, I think I would lose a lot of my friends. | SA | A | U | D | SD |
| 17. I think that my romantic relationships with men are dependent on how physically attractive I am. | SA | A | U | D | SD |
| 18. I think that if I were to gain too much weight, men would lose interest in me. | SA | A | U | D | SD |
| 19. I think that my social life in general is dependent on staying thin. | SA | A | U | D | SD |

Please answer yes or no to the following questions by checking the appropriate space.

- | | YES | NO |
|---|-----|-----|
| 20. I hide my eating from my friends. | ___ | ___ |
| 21. I hide my eating from my family. | ___ | ___ |
| 22. I feel that food controls my life. | ___ | ___ |
| 23. Family members have expressed concern about my eating behavior. | ___ | ___ |
| 24. Friends have expressed concern about my eating behavior. | ___ | ___ |
| 25. After eating, I have exercised heavily. | ___ | ___ |
| 26. After eating, I have used laxatives. | ___ | ___ |
| 27. I feel guilty about eating certain foods. | ___ | ___ |
| 28. I eat a lot of high calorie foods. | ___ | ___ |
| 29. After eating, I have forced myself to vomit. | ___ | ___ |
| 30. I have had large fluctuations in my body weight. | ___ | ___ |
| 31. I have started two or more diets in the last six months. | ___ | ___ |

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