The Prevalence of Disordered Eating Behaviors among Sorority versus Non-Sorority Women

Angela Lynn Guzman

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THE PREVALENCE OF DISORDERED EATING BEHAVIORS AMONG SORORITY VERSUS NON-SORORITY WOMEN

Angela Lynn Guzman
THE PREVALENCE OF DISORDERED EATING BEHAVIORS AMONG
SORORITY VERSUS NON-SORORITY WOMEN

A Thesis
Presented to
the College of Graduate Studies of
Georgia Southern University

In Partial Fulfillment
of the Requirements for the Degree
Master’s of Public Health
In the Department of Health and Kinesiology

by
Angela Lynn Guzman

May 2003
April 21, 2003

To the Graduate School:

This thesis, entitled “The Prevalence of Disordered Eating Behaviors Among Sorority Versus Non-Sorority Women” and written by Angela Lynn Guzman is presented to the College of Graduate Studies of Georgia Southern University. I recommend that it be accepted in partial fulfillment of the requirements for the Master’s Degree in Public Health.

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ABSTRACT

THE PREVALENCE OF DISORDERED EATING BEHAVIORS AMONG SORORITY VERSUS NON-SORORITY WOMEN

May 2003

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Eating disorders among college women is a serious psychological problem. Disordered eating behaviors were examined and diagnosed at a mid-sized university in southeast Georgia. The target group of this study was university sororities. The purpose of this study was to examine sorority versus non-sorority women to determine if there was a higher prevalence for those involved in sororities to develop disordered eating behaviors.

Surveys were distributed to both sorority and non-sorority women to determine the prevalence of disordered eating behaviors among each group. A quantitative, quasi-experimental design was used in conjunction with the Eating Attitudes Test (Garner & Garfinkle, 1979).

The research hypothesis stated that sorority women would demonstrate a higher prevalence of disordered eating behaviors than non-sorority women. Participants were recruited during sorority chapter meetings and class sessions. Two hundred and thirty-one surveys were utilized for the study. Both groups reported the same rate for disordered eating behaviors (20%). The results did not support the research hypothesis.
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INTRODUCTION

Background of Problem

In America where thinness is equated with attractiveness, the standards of beauty are at times unattainable for most women (Walsh & Devlin, 1998). In order to achieve these standards of beauty, some women resort to drastic measures. According to a report entitled *Body Image and the Media*, the British Medical Association stated that “eating disorders are a culturally bound phenomenon, largely associated with Western, industrialized societies” (Morant, 2000, p. 225). Some believe that media plays a major role in how women view and compare their bodies. In a study that examined the relationship between eating disorders and the media, it was found that after high exposure to different forms of media (magazines, billboard advertisements and television shows), women displayed more disordered-eating symptomatology such as drive for thinness and body dissatisfaction. For the men in the study, media use predicted endorsement of personal thinness and select attitudes in favor of thinness and dieting for women, suggesting that men transferred the viewed images into what their ideals about women should be (Harrison & Cantor, 1997).

In recent years, there has been a great decrease in the weight of Playboy magazine’s “playmate of the month” models from 91% to 83% of average weight (Schwitzer & Bergholz, 1998). From this, one can infer that a certain perception exists for both men and women that contributes to their “thinness.” This heavy emphasis on thinness which is constantly reinforced through society’s eyes, is thought to play an important role in the development and maintenance of disordered eating behaviors and eating disorders. Dr. Ian Fogle, the Chairman of the British Medical Association Council, describes the media as a “cult” which perpetuates “bodily perfection” in contemporary society (Morant, 2000, p. 226). This type of media attention can lead many women to develop poor body images, low self-esteem, and perhaps even disordered eating behaviors or eating disorders.

Social norms can contribute to women’s likeliness to develop a disordered eating behavior. In a study conducted by Sobal and Bursztyn (1998) at the Brooklyn College of Medicine, 86% of
the young men interviewed said they would not want to date an overweight woman. Ironically, 53% of those same young men also stated that they would not want to date a person with an eating disorder (Lang, 1998). The highest groups at risk for developing eating disorders were young females between the ages of 15 and 30, who represent social classes which are either professional or managerial occupations (Robinson, 2000). Also, most women who developed eating disorders were from higher socioeconomic levels (Alexander, 1998).

Women who develop disordered eating behaviors tend to perceive the illness in a different way than women who don’t. For those who develop the disordered eating behaviors, these patterns are a way for them to take more control over their lives (Lyons, 1998). Women perceive that they have lost control over certain aspects in their lives, but eating is something that they can control and contain (Lyons, 1998). But then when the individual does eat, or binge, they feel shame or guilt in relation to the act (Frank, 1991).

In opposition to this argument, women who do not have eating disorders or disordered eating behaviors, view those with the illness as being “weak”, and out of control with reality (Hausenblas & Carron, 1998). These perceptions spill over into physical fitness as well. “Ordinary women believe that more fit equals less fat,” (Segall, 2001, p. 22). This thought process causes many “weak” women to exercise excessively in order to compensate for eating or going on a binge. This too can lead to development of disordered eating patterns.

Hausenblas and Carron (1998) studied the effects of group influences on behaviors for residence hall co-habitants. They found that group influence on dieting and overall eating behavior is normally positive, that it is greater on eating behaviors than on dieting behaviors, and has a greater impact on females than on males. In a related study, Pike (1995) found that friendship and peer groups for females in high school, have a great amount of influence over body shape perceptions. These results suggest that in general women are more likely to be influenced by their peer groups with regards to perceptions about body shape, dieting, and eating behaviors. Thus, women in sororities are likely to develop disordered eating behaviors.
Statement of Problem

Eating disorders represent a significant health concern for women. Approximately 90% of those diagnosed with clinical eating disorders are women (Alexander, 1998). Bulimia and anorexia nervosa are two types of eating disorders. The Diagnostic and Statistical Manual-IV (1994) diagnosis of Anorexia Nervosa requires that the person demonstrate behaviors such as a refusal to maintain normal body weight and experience the absence of at least three consecutive menstrual cycles. To be diagnosed for bulimia, the person must engage in binge eating and compensate through vomiting, using laxatives, or exercising excessively at least twice weekly, and for at least three consecutive months (Schwitzer, Rodriguez, Thomas, & Salimi, 2001). It is believed that one to three percent of all adult women meet the criteria for eating disorders (Hartley, 1998).

Another concern for young women is disordered eating behaviors. To be categorized as having an eating disorder, one must meet certain criteria, (DSM-IV, 1994) for either anorexia or bulimia. However, to be identified as demonstrating disordered eating behaviors' patterns, one must meet only partial symptoms for bulimia and anorexia nervosa. The Eating Disorder Not Otherwise Specified (ED-NOS) framework was proposed by Schwitzer, et al. (2001). This tool can be used to describe persons at risk for disordered eating behaviors, but who do not actually meet criteria for having an eating disorder. This group of persons may not have lost 15% of their bodyweight (criteria for Anorexia Nervosa), but they are vomiting regularly. An example of when the ED-NOS category would be suggested is when some behavioral criteria for anorexia nervosa are present, but the person still maintains normal body weight or continues menstruating. The purposes of this study is to examine the prevalence of disordered eating patterns rather than eating disorders due to the small percentage of persons who actually meet the criteria for the latter.

College females appear to be a subgroup of those with eating disordered behavior. For example, in one study, 64% of American college women sampled exhibited some degree of disordered eating behavior, suggesting that this is the rule rather than the exception (Mintz & Betz, 1998). Even among American college women who perceived themselves as of normal weight, 88% reported that they wanted to be thinner (Raudenbush & Zellner, 1997). There are several reasons why women in college would be more
at risk for such disorders. First, the transition from high school to college appears to be the most vulnerable time for women in terms of a downward shift in their sense of self (Hesse-Biber & Marino, 1991). Some women may attempt to improve their sense of self by losing weight. They begin to view their body as a machine or some sort of material thing (Chianese, 1992). Unfortunately, this may come at the cost of developing eating disordered behaviors or even full-blown eating disorders. Women will push their “machine” to the limit and see how thin they can get.

On a societal level, colleges provide social values that shape students’ choices about weight control. These perspectives provide a climate that may support or repress changes in behaviors and weight levels (Schulken & Pinciaro, 1997). Within the college community, different subgroups may be at a greater risk of developing eating-related problems. Groups whose members emphasize body weight and shape could place increased pressures on their members. These groups could be characterized by professional competence, athleticism, or social makeup (Alexander, 1998).

Some examples of groups who feel the pressure to be thin would be actors or dancers. Actors and dancers may feel the pressure to conform to thinner body types for professional reasons. A role an actor may be auditioning for may require a thin physique. Dancers may think that they have more freedom to move if they lose a few pounds (Alexander, 1998). A study among South African ballet dancers found that there were significantly higher differences in the drive for thinness in the dancers compared to the control group of adolescent females (Montanari & Zeitkiewicz, 2000).

Athletes can develop disordered eating patterns when they try to maintain lesser body weights in order to swim faster, or run faster. When disordered eating develops for professional or athletic reasons, the pressure to lose weight can be categorized as functional or “instrumental.” In other words, losing weight is a functional part of being a good athlete. But when the driving force behind an eating disorder is primarily social, it is categorized as psychological (Alexander, 1998). Research on university campuses about female athletes concluded that psychological predisposing factors to eating disorders do exist in some cases (Berry & Howe, 2000). “Many athletes use the physical activity of their particular sport to legitimize their disorder” (Lamparski, 1993, p. 20). These athletes believe that when restricting eating, there is an increase in athletic performance which may be initially, but consequently performance will fail.
Another subgroup of college women identified as being at high risk for disordered eating behaviors are those who are affiliated with sororities, specifically those defined as 'social' sororities. For sororities, there seems to be a standard of beauty and thinness to which all members must strive. But what are the reasons for such standards? According to one study, historically white sororities encourage romantic pairings above everything else within the organization (Berkowitz & Padavic, 1999). If "romance, love and marriage are most important for young white women," and if being thin and attractive accomplishes such means, to what extremes will these women go (Berkowitz & Padavic, 1999, p. 542)?

There is some evidence that suggests that membership to the group itself could be a potential risk factor for developing these disordered eating behaviors. According to Striegel-Moore, Silberstein, and Rodin (1993, p. 251), "women who are especially concerned with creating and maintaining an effective social facade are more prone to developing eating disorders as a means of meeting social expectations." A result of their social environment, these women are sometimes pressured into developing potentially dangerous weight-control behaviors. These standards of beauty are not prevalent for women affiliated with historically black sororities (Berkowitz & Padavic, 1999).

**Purpose of Study**

The purpose of this study was to examine sorority versus non-sorority women to determine if there was a higher prevalence for those involved in sororities to develop disordered eating behaviors.

**Research Design**

The research methodology employed was a quantitative, quasi-experimental design. This type of research methodology was chosen in order to record and measure existing conditions, and the relationship between women involved in sororities and disordered eating behaviors. The methodology included the administration of questionnaires to both sorority and non-sorority women at a campus in the southeastern United States. The Eating Attitudes Test (EAT-26) was used to determine characteristics of eating disordered behavior among the participants (Garner & Garfinkle, 1979). In addition to the EAT were questions concerning background characteristics of the population such as age, race, height, weight, competitiveness, and participation in extracurricular activities. The investigator administered the surveys to the sorority women at their houses and during academic courses.
Based on an *a priori* power analysis, the target sample size was 372, with sub-group sample sizes being 124 for sorority women and 248 for non-sorority women. After eliminating sorority women who filled out the questionnaire in classrooms, and those women who did not identify their race as white, total number of participants was 231 (sorority women = 93, non-sorority women = 138).

The formula for determination of sample size for estimating proportions is as follows (Cohn, 2002):

\[
n = \frac{Nz^2 pq}{d^2 (N-1) + z^2 pq}
\]

The use of this formula was mandatory in order to establish an 8% difference between the non-sorority and sorority groups. Various research material listed the variance as high as 14% (Abood & Mason, 1997) and as low as 5% (Abrams, Allen & Gray, 1993) between the two groups. For this study, 8% will be used to indicate a significant difference between the groups (Furnham & Adam-Saib, 2000).
MINIATURE REVIEW OF LITERATURE

Types of Eating Disorders

The eating disorders anorexia nervosa and bulimia nervosa are serious illnesses that affect a number of women (Shekter-Wolfson & Woodside, 1997). Disordered eating behaviors, which are subclinical forms of the more severe anorexia and bulimia, are also increasing in incidence (Tenore, 2001).

Anorexia Nervosa

Anorexia nervosa is a syndrome composed of dietary restriction and is related to an extreme drive for thinness (Shekter-Wolfson & Woodside, 1997). Anorexics have a distorted body image and a preoccupation with food, dieting, and losing weight (Chopak, 1987). Some physical consequences include dry and scaly skin, brittle hair, amenorrhea, liver and kidney damage, and even death. The DSM-IV (1994) has listed the following criteria for anorexia nervosa: a refusal to maintain body weight at or above minimally considered normal for age and height; body weight becomes less than 85% of that expected; intense fear of gaining weight; and others. Anorectics also engage in inappropriate compensatory behaviors after they have eaten such as self-induced vomiting (Robinson, 2000).

Bulimia Nervosa

Bulimia nervosa is the disease described as binge-eating accompanied by purging-efforts to reverse the binge behavior, such as vomiting or using laxatives (Shekter-Wolfson & Woodside, 1997). Bulimics have an obsession with food much like anorexics, along with a distorted body image (Chopak, 1987). Some physical consequences include loss of tooth enamel, dehydration, fainting spells, tremors, constipation, and even death. The DSM-IV lists the following as criteria for diagnosis of the disorder: recurrent episodes of binge eating; recurrent inappropriate compensatory behaviors; and others.

Disordered Eating Behaviors

Disordered eating behaviors are those similar to anorexia and bulimia nervosa, yet they are at subclinical levels (Schwitzer & Bergholz, 1998). The disturbance in eating and weight management is the same as in eating disorders, but not at the same intensity. Associated features as described by the DSM-IV
include: rumination concerning eating, drinking, and weight management; fragile self-esteem, interpersonal concerns; and other adjustment problems (Schwitzer & Bergholz, 1998).

**Incidence and Prevalence Rates**

Research evidence suggests that there is an increase in the incidence of eating disorders and disordered eating (Hartley, 1998). Prevalence for the clinical disorders of anorexia are from 0.5% to 1% and for bulimia they are approximately 2%. Binge eating prevalence rates are also at about 2% (Rock, 1999). It has also been estimated that at least 6% of all women have an eating disorder in their lifetime (Alexander, 1998). In the United States, the Eating Disorders Awareness Program estimated that almost 10 million men and women suffer from eating disorders (Cohn, 2002). For college women, researchers have estimated that almost 19% have bulimia, 2% have anorexia, and over 60% report disordered eating patterns (Alexander, 1998).

**Populations at Risk**

The vast majority of those with eating disorders (90%) are women between the ages of 15 to 40 (Shekter-Wolfson & Woodside, 1997). Certain sub-groups of women are more affected by the illnesses such as athletes, teenage girls, and college women.

*Athletes*

Three possible reasons have been identified for why athletes develop such disorders: sports can attract individuals who are vulnerable and thus, already at risk; participation itself could lend to the disorder; or sports could precipitate a disorder for those who are predisposed to its development (Thompson & Sherman, 1993). For the most part it seems that sports with an emphasis on lean body types, those that have weight classes, or those with revealing uniforms may be at increased risks for development of the disorders (Krane, Stiles-Shipley, Waldron & Michalenok, 2001).

In 1990 the NCAA reported that 64% of member institutions recognized at least one athlete within their program had experienced disordered eating behaviors (Dick, 1990). Approximately one-third of female athletes struggle with severe weight control measures (Hornak & Hornak, 1997). Sociocultural aesthetics of a thin ideal for women are believed to aid in the onset of such disorders (Kirk, Singh & Getz, 2001).
Teenage Girls

Teenage girls are also vulnerable to the effects of eating disorders (Tiggeman, 2001). The mean age of onset for development of the disorders are 14 and 15 (Kirk, Singh & Getz, 2001). Some reasons why young girls may turn to disordered eating behaviors include body image dissatisfaction, societal pressures, fear of puberty and low self-esteem (Berry & Howe, 2000). Some recent studies have also examined the phenomenon of popularity as a negative affect on healthy eating and weight management (Tiggeman, 2001). If the reasons aren’t strong enough in adolescence for young girls to try these eating behaviors, college may provide an entirely new opportunity.

College Women

Thombs, Rosenberg, Mahoney and Daniel (1996) stated the incidence of eating disorders/disordered eating behaviors among college women is nearing epidemic levels. Some reasons why researchers believe that there is a higher risk for college women is that moving to a new environment may be stressful, different social codes of conduct are present, and adult guidance may be decreased (Kirk, Singh & Getz, 2001).

It has been suggested that certain aspects of a campus environment may actually foster disordered eating behaviors. College campuses are stressful and partially closed environments which may serve to intensify cultural and societal pressures to be thin (Halmi, Falk, & Schwartz, 1981; Kaminski & McNamara, 1996). Some women become enclosed within an even tighter environment by joining a sorority. Sororities are social clubs college women can join to socialize, become part of a philanthropy, and make career connections and networks (Berkowitz & Padavic, 1999). Dunn (1999) examined the forcible interaction of dating and long-term relationships among college sorority women. She examined the influence of cultural romantic dating and the pressures that come from within the sorority (Dunn, 1999). This culture within the sorority has a strong impact on the structure and shaping of college women’s actions (Berkowitz & Padavic, 1999). The pressure to date and find a partner, is solely derived from the sorority itself and may cause many college women to turn to drastic weight management behaviors.
Socio-Cultural Factors

Body Image and Media Influence

Media is used to influence our culture into sharing the same beliefs regarding body images and shapes. All individuals who report disordered eating behaviors have distorted body images (Molinari, 1995). This distortion predominantly is perpetuated through the media. Researchers have found that media use predicted disordered eating behaviors after significant magazine reading (Harrison & Cantor, 1997). A study examining leisure activities in relation to body dissatisfaction, disordered eating, and self-esteem showed a strong correlation between hours spent watching television and lower self-esteem (Tiggeman, 2001). Tenore (2001) traced the recent history of eating disorders in his article “Challenges in Eating Disorders: Past and Present.” He notes the rise in the incidence of such disorders by illustration through media. In addition, the use of media to describe why individuals develop disordered eating behaviors is best explained through socio-cultural factors (Levine & Smolak, 1994).

Model/ Theory

Social Cognitive Theory

Social learning or social cognitive theory has been utilized in the explanation for the increasing rate of eating disorders (Tiggeman, 2001). Albert Bandura’s theory proposes that societal standards for beauty and thinness are accepted by most women, although many cannot achieve it (Glanz, Lewis & Rimer, 1997).

Social cognitive theory in relation to eating disorders describes the influence of cognition on the development and maintenance of pathological eating and weight control behaviors. Persons diagnosed with either eating disorders or disordered eating patterns have developed a disfigured schema which contains overvalued information regarding weight and shape that they incorporate from their social surroundings (Williamson & Muller, 1999). The investigator of this study believes that social cognitive theory is most suitable for explaining the reasoning behind disordered eating behaviors among college women.
METHODS

Purpose of Study

The purpose of this study was to examine sorority versus non-sorority women to determine if there was a higher prevalence for those involved in sororities to develop disordered eating behaviors.

Instrumentation

For the purposes of this study, the researcher administered the Eating Attitudes Test (EAT-26) by Garner and Garfinkel (1979). The EAT-26 was chosen because of previous research signifying its usefulness as a screening instrument, and for measuring outcome, for eating disorders (Garner & Olmsted, 1984). It assesses a broad range of symptoms and provides a total score for negative eating attitudes and behavior.

The EAT-26 (see Appendix C) was originally developed to assess attitudes and behaviors characteristic of anorexic patients. It is now most appropriately used as an index for severe concerns typical among women with eating disorders (Crowther & Sherwood, 1994). It contains 26 closed-ended questions. This instrument was validated in 1982 by Garner and Garfinkle with anorexic patients. But it has also proven efficient in identifying disordered eating for non-clinical populations (Garner & Garfinkle, 1979). Garner and Garfinkle reported that the EAT-26 demonstrated high internal consistency for reliability. The EAT-26 was utilized in the 1998 National Eating Disorders Screening Program (Garner, 1993).

The EAT-26 has acceptable criterion-related validity by significantly predicting group membership with a high reliability (internal consistency), $\alpha = 0.90$ for the anorexia nervosa group (Jones, Bennett, Olmsted, Lawson, & Rodin, 2001). It is probably the most widely used, standardized measure of symptoms characteristic of eating disorders (Garner, 1993). For the EAT-26, respondents must rate whether each item applies “always,” “usually,” “often,” “sometimes,” “rarely,” or “never.” Responses for each item are weighted from 0 to 3, with a score of 3 assigned to the responses furthest in the symptomatic direction (i.e. “always,” or “never”). All items are scored in the positive manner, excluding number 26.
Thus, always= 3, usually= 2, often= 1, and sometimes, rarely, and never= 0. Item 26 is a reverse-score item (never=3, rarely=2, sometimes=1, and often, usually, and always=0). The total EAT-26 score is the sum of the composite items, ranging from 0 to 78. A total score of 13 or above indicates a “problem eater” (Nelson & Hughes, 1999). Scores that are greater than or equal to 20 on the EAT-26 are frequently associated with abnormal eating attitudes and behaviour and may identify those with an eating disorder (Jones, et al., 2001). Without clinical level counseling and questioning, it can be rather difficult at times to classify an individual with an eating disorder.

**Data Collection Procedures**

The researcher used a non-probability, purposive sampling methodology to choose the participants who best met the purposes of the study. This method was chosen because of its combination of both quota and convenience sampling (Neutens & Rubinson, 1997). The main advantage of the sample selection was that the researcher did not have to travel to conduct the study. All questionnaires were hand delivered and administered by the researcher. Finally, the participants were relatively easy to contact for possible participation in the study. A disadvantage of the sample selection was that the results of this study cannot be generalized to the population at large.

The investigator contacted professors on campus and sorority presidents through letters. The letters explained the intent of the study, and solicited members who were willing to cooperate. All seven sorority presidents were mailed informational letters concerning the research (see Appendix C). After follow up phone calls, only two sororities agreed to participate. Thirty-two professors from the campus were also contacted with letters and phone calls. Fifteen agreed to allow their classes to participate in the study. The researcher collaborated to set up a date and time to administer the questionnaires to the appropriate parties. The researcher then attended the appropriate classroom meeting or sorority chapter session to distribute the questionnaires and further explain the study. After the participants completed the surveys, they were collected.
Data Analysis Procedures

Members who classified themselves as members of a sorority were the group of interest. The control group consisted of non-sorority participants. Following the collection of data, the investigator calculated descriptive statistics of group means and standard deviations for each measure between the two groups (sorority and non-sorority). The answers from the EAT-26 were scored by using the standard key for all questions and incorporating a continuous point system to determine the degree of the disordered eating behaviors (Crowther & Sherwood, 1994).

Parametric measures included an independent sample t-test ($\alpha = .05$) to examine the significance of eating disordered behaviors between the control and experimental groups. Non-parametric measures such as Chi-square analyses were used to assess the differences between the sorority and non-sorority groups for the different variables. Also, risk ratios were used to confirm differences and investigate the magnitude of any observed associations. Two-way analysis of variance were run to determine simultaneous comparisons for groups.

Due to previous research concerning race and eating disorders (Abood & Mason, 1997; Abrams, Allen & Gray, 1993), it was determined that only white women would be included in the research. After eliminating all non-white participants, a total of 255 surveys remained. Of those, 112 were affiliated with a sorority and 143 were not affiliated. Eighteen sorority women completed the survey within a classroom and not at their respective sorority house. Since it could not be determined to which sorority house these women belonged, these candidates were also eliminated leaving 94 sorority surveys and a total of 237 participants.

Respondents were asked to identify their race, school status, parent’s income level, sports participation, competitiveness level, previous diagnosis of eating disorders, and previous education concerning eating disorders. Only white participants were included in the research analysis. Historically black sororities were not included for two reasons: (1) race was not a factor considered for analyses in this study and; (2) there is currently a limited number of black sorority women between two black sororities on campus.
RESULTS

Description of Subjects

From the university where the study was conducted, the number of sorority members currently equals approximately 700 women among seven sororities. For data analysis, a total of 231 women were included in the survey. Of those, 93 (40%) classified themselves as being active members of a sorority, with the remainder of 138 (60%) providing no sorority affiliation status.

The age range for all respondents was between 18 and 21 years old. Mean age for all participants was 20 years. Sorority participants reported a mean age of 20 years with a range from 18 to 23. Mean age for the non-sorority group was 21 years with a range from 18 to 29. After running an independent sample t-test, no significant difference was found for age between the sorority and non-sorority groups ($p = .08$).

Height and weight measurements were used to assess physical characteristics. The mean height for all respondents was 65.7 inches with a range from 58 to 73 inches. The mean weight for all participants was 131.4 pounds with a range from 90 to 313 pounds. See Table 1 for current weight and height amongst the sorority and non-sorority participants. An independent sample t-test showed a significant difference in current weight between the sorority and non-sorority groups ($p = .03$), but not for height ($p = .22$). The sorority women weighed over nine pounds less than the non-sorority women. There was no significant difference in height.
Table 1

Means and Standard Deviations for Current Weight and Height Among Sorority and Non-Sorority Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sorority</th>
<th></th>
<th>Non-Sorority</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Current Weight</td>
<td>131.4</td>
<td>20.5</td>
<td>140.2</td>
<td>34.2</td>
</tr>
<tr>
<td>Current Height</td>
<td>65.0</td>
<td>2.6</td>
<td>66.1</td>
<td>9.8</td>
</tr>
</tbody>
</table>

* M = Mean, SD = Standard Deviation

Participants were asked to identify their school status (i.e. year in school). Among the sorority participants, 9% identified themselves as freshmen, 34% as sophomores, 40% as juniors, and 17% as seniors. The non-sorority group included 25% freshmen, 20% sophomore, 28% junior, and 28% senior. Means and standard deviations were calculated for sorority and non-sorority EAT scores for each class rank. The range for all EAT scores was from 0 to 55. Freshmen sorority women reported the highest mean score with 22.0 (SD = 15.5). The lowest EAT score was from the non-sorority senior class with a mean of 9.4 (SD = 9.0). (See Table 2.)

Table 2

Means and Standard Deviations of EAT Score for School Status and Sorority Affiliation

<table>
<thead>
<tr>
<th>School Status</th>
<th>Sorority</th>
<th>EAT Score</th>
<th>Non-Sorority</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Freshmen</td>
<td>22.0</td>
<td>15.5</td>
<td>11.4</td>
</tr>
<tr>
<td>Sophomore</td>
<td>10.7</td>
<td>8.8</td>
<td>11.3</td>
</tr>
<tr>
<td>Junior</td>
<td>10.6</td>
<td>10.0</td>
<td>11.3</td>
</tr>
<tr>
<td>Senior</td>
<td>10.5</td>
<td>8.0</td>
<td>9.4</td>
</tr>
</tbody>
</table>

* M = Mean, SD = Standard Deviation
A one-way analysis of variance (ANOVA) was run to determine if there was a significant difference within school status variables for mean EAT scores. With a p-value of .03, statistical significance was found in Scheffe’s post hoc for the freshmen class within the sorority group. All other classes were the same. Within the non-sorority group, no significance was found (p > .82) among the different class ranks (See Table 3).

Table 3

*One-Way ANOVA for School Status and Sorority Affiliation*

<table>
<thead>
<tr>
<th>Affiliation</th>
<th>Significance</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorority</td>
<td>3.28</td>
<td>3</td>
<td>.03*</td>
</tr>
<tr>
<td>Non-Sorority</td>
<td>.31</td>
<td>3</td>
<td>.82</td>
</tr>
</tbody>
</table>

*Scheffe test showed significant difference between freshmen and other class ranks in the sorority group.*

A two-way analysis of variance was used to test whether significant differences existed between the sorority and non-sorority groups on mean EAT score and school status (Table 4). No significant interaction was found between school status and sorority affiliation for mean EAT score (F = 2.2, p = .09). Scheffe post-hoc test revealed that there was a significant difference between school status and mean EAT score, (F = 2.7, p = .05), but no significant difference for sorority affiliation (F = 2.8, p = .09). No significant differences were found within subjects for school status.
Table 4

Two-Way ANOVA for School Status and Sorority Affiliation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Significance</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>df</td>
<td>p</td>
</tr>
<tr>
<td>Status</td>
<td>2.7</td>
<td>3</td>
<td>.05*</td>
</tr>
<tr>
<td>Affiliation</td>
<td>2.8</td>
<td>1</td>
<td>.09</td>
</tr>
<tr>
<td>Status x Affiliation</td>
<td>2.2</td>
<td>3</td>
<td>.09</td>
</tr>
</tbody>
</table>

*Significant at the p = .05 level

The majority of all respondents listed their parent's income level (socioeconomic status) as "upper/upper-middle" (80%). Over 90% of the sorority women reported their parent's income level at either upper or upper-middle whereas only 70% of the non-sorority group did the same. Means and standard deviations for EAT scores are shown in Table 5 for socioeconomic status (SES) and sorority affiliation. The data illustrate the highest mean EAT score for the upper/upper-middle class non-sorority group (M = 12.6, SD = 11.6).

Table 5

Means and Standard Deviations of EAT Score for Parent's Income Level (SES) and Sorority Affiliation

<table>
<thead>
<tr>
<th>SES</th>
<th>Sorority</th>
<th>EAT Score</th>
<th>Non-Sorority</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Upper/Upper-Middle</td>
<td>11.5</td>
<td>10.0</td>
<td>12.6</td>
</tr>
<tr>
<td>Lower/Lower-Middle</td>
<td>10.4</td>
<td>10.7</td>
<td>11.7</td>
</tr>
</tbody>
</table>

*M = Mean, SD = Standard Deviation
A one-way analysis of variance (ANOVA) was run to determine if there was a significant difference within SES variables for mean EAT scores. No statistical significance was found within SES for the sorority group (p = .77) nor the non-sorority group (p = .52). (See Table 6).

Table 6

*One-Way ANOVA for Parent’s Income Level and Sorority Affiliation*

<table>
<thead>
<tr>
<th>Affiliation</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td>Sorority</td>
<td>.09</td>
</tr>
<tr>
<td>Non-Sorority</td>
<td>.41</td>
</tr>
</tbody>
</table>

A two-way ANOVA was also conducted for parent’s income level. A significant interaction was not found for SES and sorority affiliation (F = .01, p > .90). Results are listed in Table 7.

Table 7

*Two-Way ANOVA for Parent’s Income Level and Sorority Affiliation*

<table>
<thead>
<tr>
<th>Affiliation</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td>SES</td>
<td>.30</td>
</tr>
<tr>
<td>Affiliation</td>
<td>.64</td>
</tr>
<tr>
<td>SES x Affiliation</td>
<td>.22</td>
</tr>
</tbody>
</table>

Sports participation in college was also assessed. Forty-four percent of total participants reported that they did not participate at any level, 25% stated that they played recreationally, 24% had participated in intramural sports, and 5.7% played at the collegiate level. Very few sorority women participated at the collegiate level for sports.
Participants were asked to rate their level of competitiveness. Fifty-four percent of overall respondents reported that they were “somewhat competitive,” 26% stated they were “very competitive,” 22% were “not very competitive,” and only 2% were “not competitive at all.” Approximately 50% of the respondents from both groups reported being “somewhat competitive.”

Group means and standard deviations were calculated to compare the overall mean EAT score for both groups. The mean for sorority members was 11.7 (SD = 10.2) and for the non-sorority members, \( M = 10.7 \) (SD = 10.5). The results are reported in Table 8. A score of 20 or above on the EAT-26 satisfies criteria for “disordered eating behaviors”, but does not meet clinical eating disorder expectations (Garner & Olmsted, 1984). However the higher the score, the increased likelihood of developing disordered eating behaviors.

<table>
<thead>
<tr>
<th>Affiliation</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorority</td>
<td>11.7</td>
<td>10.2</td>
</tr>
<tr>
<td>Non-Sorority</td>
<td>10.7</td>
<td>10.5</td>
</tr>
</tbody>
</table>

\( M = \) Mean, \( SD = \) Standard Deviation

An independent sample t-test was run for mean EAT scores among the two groups (\( \alpha = .05 \)). No significant differences were found among mean EAT scores between the sorority and non-sorority groups (\( p = .92 \)).

For items 16-18 on the demographic portion of the questionnaire (Appendix C), participants were asked to respond to certain attitudinal and behavioral characteristics concerning food, diet, and weight. For Table 9, “EAT Score Above 20” indicates that the participant meets criteria for disordered eating behaviors. As for the total participants reporting disordered eating behaviors (sorority group + non-sorority group), the percentage was found to be at 20% (\( F = 46, N = 231 \)). A chi-square analysis (\( X^2 \)) was calculated to determine if significant differences existed between sorority affiliation and disordered eating
behaviours (EAT score above 20). Statistical significance is found when $X^2$ is less than .05. Both sorority and non-sorority women had the same frequency for disordered eating behaviors.

Table 9

*Frequencies, Percentages and Chi Square Distribution for Disordered Eating Behaviors (EAT Score Above 20) Among Sorority and Non-Sorority Groups*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sorority</th>
<th></th>
<th>Non-Sorority</th>
<th></th>
<th>$X^2$</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAT Score Above 20</td>
<td>19</td>
<td>20.4%</td>
<td>27</td>
<td>19.6%</td>
<td>.45</td>
<td>1</td>
</tr>
</tbody>
</table>

$F =$ Frequency, $\% =$ Percentage, $X^2 =$ Chi Square, $df =$ Degrees of Freedom

Attitudinal factors such as feeling overweight, satisfaction with weight, and feeling too fat were also examined. Percentages for both groups on these variables were all above 50%. No significant differences were found after running chi square analysis (See Table 10).

Table 10

*Frequencies, Percentages and Chi Square Distribution for Attitudinal Characteristics for Sorority and Non-Sorority Groups*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sorority</th>
<th></th>
<th>Non-Sorority</th>
<th></th>
<th>$X^2$</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;I am overweight&quot;</td>
<td>58</td>
<td>62.4%</td>
<td>87</td>
<td>63%</td>
<td>.17</td>
<td>1</td>
</tr>
<tr>
<td>Dissatisfied with Weight</td>
<td>52</td>
<td>56%</td>
<td>90</td>
<td>65.2%</td>
<td>.20</td>
<td>1</td>
</tr>
<tr>
<td>&quot;I am too fat&quot;</td>
<td>51</td>
<td>55%</td>
<td>72</td>
<td>52%</td>
<td>.48</td>
<td>1</td>
</tr>
</tbody>
</table>

$F =$ Frequency, $\% =$ Percent, $X^2 =$ Chi Square, $df =$ Degrees of Freedom

Frequencies, percentages and chi square analyses were conducted for behavioural characteristics (self-induced vomiting; daily weighing; diuretic abuse; laxative abuse; carbohydrate avoidance; binge eating; and overexertion through exercise). The results are listed in Table 11. Other than excessive
exercise, sorority women had higher percentages for all behavioural characteristics. However \( X^2 \) analysis showed no significant differences.

Table 11

*Frequencies, Percentages and Chi Square Distribution for Behavioral Characteristics for Sorority and Non-Sorority Groups*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sorority</th>
<th>Non-Sorority</th>
<th>( X^2 )</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( F )</td>
<td>%</td>
<td>( F )</td>
<td>%</td>
</tr>
<tr>
<td>Carbohydrate Avoidance</td>
<td>25</td>
<td>27%</td>
<td>32</td>
<td>23.2%</td>
</tr>
<tr>
<td>Binge Eating</td>
<td>12</td>
<td>13%</td>
<td>12</td>
<td>8.7%</td>
</tr>
<tr>
<td>Excessive Exercise</td>
<td>19</td>
<td>20.4%</td>
<td>33</td>
<td>23.9%</td>
</tr>
<tr>
<td>Daily weighing</td>
<td>31</td>
<td>33.3%</td>
<td>35</td>
<td>25.4%</td>
</tr>
<tr>
<td>Diuretic Abuse</td>
<td>8</td>
<td>8.6%</td>
<td>9</td>
<td>6.5%</td>
</tr>
<tr>
<td>Laxative Abuse</td>
<td>7</td>
<td>7.5%</td>
<td>9</td>
<td>6.5%</td>
</tr>
<tr>
<td>Self-Induced Vomiting</td>
<td>14</td>
<td>15%</td>
<td>19</td>
<td>14%</td>
</tr>
</tbody>
</table>

\( F = \text{Frequency}, \% = \text{Percentage}, X^2 = \text{Chi Square}, df = \text{Degrees of Freedom} \)

In order to determine if there was indeed a greater risk for the sorority women across these variables, Risk Ratios and 95% Confidence Intervals were calculated. When a risk ratio is greater than 1.0, then there is a greater risk for that factor within the sorority group. If the 95% Confidence Interval does not include 1.0, then this risk is significant at the \( p = .05 \) level. Table 12 displays the risk ratio and 95% confidence interval for disordered eating behavior. No significant risk was found for disordered eating behaviors amongst the two groups.
Table 12

Risk Ratio and 95% Confidence Interval for Disordered Eating Behaviors (EAT Score Above 20) Among Sorority and Non-Sorority Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Risk Ratio*</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disordered Eating</td>
<td>0.90</td>
<td>(0.47 - 1.75)</td>
</tr>
<tr>
<td>Behaviors</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*There is an increased tendency for this factor among sorority women (RR > 1.0).

An increased risk was found for all three attitudinal characteristics listed in Table 13. After examining the 95% confidence interval, these risks were not significant.

Table 13

Risk Ratio and 95% Confidence Interval for Attitudinal Characteristics Among Sorority and Non-Sorority Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Risk Ratio*</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I am overweight”</td>
<td>1.69</td>
<td>(0.70 - 4.10)</td>
</tr>
<tr>
<td>Dissatisfied with Weight</td>
<td>1.31</td>
<td>(0.76 - 2.26)</td>
</tr>
<tr>
<td>“I am too fat”</td>
<td>1.05</td>
<td>(0.62 - 1.79)</td>
</tr>
</tbody>
</table>

*There is an increased tendency for this factor among sorority women (RR > 1.0).

Table 14 displays the risk ratios and 95% confidence intervals for the behavioral characteristics studied. Except for “Excessive Exercise”, there is an increased risk for all other variables. In other words, sorority women have a higher risk of participating in carbohydrate avoidance, binge eating, daily weighing, diuretic abuse, laxative abuse, and self-induced vomiting.
Table 14

Risk Ratio and 95% Confidence Interval for Behavioral Characteristics for Sorority and Non-Sorority Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Risk Ratio*</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbohydrate Avoidance</td>
<td>1.27</td>
<td>(0.69 - 2.34)</td>
</tr>
<tr>
<td>Binge Eating</td>
<td>1.56</td>
<td>(0.67 - 3.64)</td>
</tr>
<tr>
<td>Excessive Exercise</td>
<td>0.85</td>
<td>(0.45 - 1.62)</td>
</tr>
<tr>
<td>Daily Weighing</td>
<td>1.52</td>
<td>(0.85 - 2.72)</td>
</tr>
<tr>
<td>Diuretic Abuse</td>
<td>1.35</td>
<td>(0.50 - 3.64)</td>
</tr>
<tr>
<td>Laxative Abuse</td>
<td>1.17</td>
<td>(0.42 - 3.25)</td>
</tr>
<tr>
<td>Self-Induced Vomiting</td>
<td>1.18</td>
<td>(0.55 - 2.52)</td>
</tr>
</tbody>
</table>

*There is an increased tendency for this factor among sorority women (RR > 1.0).

Participants were also asked if they had ever been diagnosed with an eating disorder previously.

Six women reported being previously diagnosed with anorexia, eight with bulimia, one with both anorexia and bulimia, and one with bulimia and binge eating. Thus, 7% of the respondents reported ever having an eating disorder. From the sorority group, 4.3% reported ever having anorexia and 2% ever having bulimia. Except for bulimia (4.3%), the non-sorority group percentages for this category were much lower than the sorority percentages. (See Table 15.)

Table 15

Frequencies and Percentages for Previous Eating Disorder Diagnosis

| Previous Diagnosis | Sorority |  | Non-Sorority |  |
|--------------------|----------| |              |  |
|                    | F  | % | F  | %  |
| Yes                | 6  | 6.5% | 10 | 7.2% |
| No                 | 87 | 93.5% | 133 | 92% |
Interestingly, over half of the participants (56%) reported that they had never received any eating disorder education (see Table 16). More sorority women reported receiving education about eating disorders compared to non-sorority women (74% versus 22%). After Chi Square analysis, there is a significant difference between the groups for education (RR = 9.77, 95% CI = 5.27 - 18.13).

Table 16

<table>
<thead>
<tr>
<th>Received Education</th>
<th>Sorority</th>
<th>Non-Sorority</th>
<th>X²</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>67</td>
<td>30</td>
<td>.01*</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>74%</td>
<td>22%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>24</td>
<td>105</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>26.4%</td>
<td>77%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the p < .05 level. F = Frequency, % = Percent

Results indicate that although there is a certain trend for the sorority group toward particular aspects of disordered eating, this group did not report a higher prevalence than the non-sorority women. Both groups reported similar rates of disordered eating behaviors, although, sorority freshmen did report a mean EAT score above the cutoff of 20 (M = 22.0, SD = 15.5). This was the only group to have done so.
DISCUSSION

Although the research hypothesis was not supported, 20% of the total participants had a score of 20 or more on the EAT-26. While some studies have estimated that almost 60% of college women display some sort of disordered eating behavior (Alexander, 1998; Mintz & Betz, 1998; Raudenbush & Zellner, 1997), this study is consistent with others which have found that estimation to be drastically lower. Abood and Mason (1997) determined the rate to be approximately 25%, and Brookings and Wilson (1994) reported a rate of only 18%. More consistent research needs to be done utilizing the same measures to obtain a more accurate picture of disordered eating behaviors among college women.

A small percentage of the sample responded “yes” to ever being diagnosed with an eating disorder (7%). For Western society at large, bulimia, anorexia, and binge eating combined account for a prevalence rate of approximately 5-6% among college women (Alexander, 1998; Brookings & Wilson, 1994), thus concluding that results from this study for clinical eating disorders resemble those from other research.

Freshmen sorority women reported the highest mean EAT score for all class ranks amongst both groups. Perhaps with increased age and education in college, it is less likely for sophomore, junior, and senior women to have disordered eating behaviors. The transition from high school to college appears to be the most vulnerable time for women in terms of a downward shift in their sense of self (Hesse-Biber & Marino, 1991). Some women may attempt to improve their sense of self by losing weight, often by extreme measures. Groups whose members emphasize body weight and shape (i.e. sororities) could place increased pressures on their members. This could indicate that freshmen sorority women feel an increased pressure to be thin compared to other class ranks within the sorority. Or perhaps since eating disorders start at a young age, they are under control by the onset of college. This could be another possible explanation why freshmen women reported the highest score.

Another point to make is the difference in the distribution of class ranks between the two groups. The percentage of sorority freshmen women was much lower than the non-sorority freshmen. Typically
women will not enter into a sorority until their sophomore or junior year in college (Schulken & Pinciaro, 1997). Therefore, there was a disproportionate amount of freshmen women in the sorority group.

This study has produced findings different from other research involving sororities and eating disorders. Alexander (1998) found that “sorority participants tend to score more pathologically on the EAT, Bulimia Test Revised, and the Bulimia subscale than the control participants” (p. 71). Schulken and Pinciaro (1997) indicated that “sorority women may have a greater fear of becoming fat, are more dissatisfied with their bodies, and are more weight preoccupied and concerned with dieting than are college women from previous studies” (p. 69). And though Hausenblas and Carron (1998) did not explore sorority women specifically, their findings concerning group influence on dieting and eating behaviors were also incomparable: “it is apparent that the social influence of the friendship network is a great one for eating, dieting, and body shape perceptions” (p. 585).

The participants in this study reported high dissatisfaction with their weight, body image, and perceived fatness. However, this was inconsistent with high performance of behaviors specific to eating disorders. Nevertheless, it is indicative of feelings of inadequacies that often contribute to disordered eating behaviors.

Interestingly, more of the sorority women received education about eating disorders. Whether or not it contributed to lower mean EAT scores cannot be concluded by the present research. In addition, the sorority women weighed significantly less than did the non-sorority women. It would be assumed that the more education, perhaps the lower prevalence for disordered eating. However this was not the case. Also, since the rates of disordered eating were so similar, why do the sorority women weigh so much less than the non-sorority group? Such questions could best be answered with further research.

Another instrument to record disordered eating behaviors may have produced different results. The Bulimia Test-Revised, Eating Disorder Inventory, and EAT-40 have all been used to determine eating disorders (Lamparski, 1993). Yet in the past, numerous studies have utilized the EAT-26 in conjunction with college women (Abood & Mason, 1997; Brookings & Wilson, 1994; Nelson & Hughes, 1999; Stephens, Schumaker & Sibiya, 1999). All produced satisfactory results. It was also in the best interest of
the study to choose an instrument which observed disordered eating behaviors in particular and that could be completed in a short amount of time.

Limitations for this study may be small sample size and/or social desirability. Social desirability may have also played a role in limitation. In Reber’s *Dictionary of Psychology* (1995) social desirability is defined as “a bias to respond to self-evaluative questions in a socially approved manner so as to appear more socially desirable either to oneself or to others” (p. 731). There is a considerable lack of research pertaining to sororities and social desirability (Alexander, 1998), although Abood and Mason (1997) did report this as a limitation in their study with college women and eating behaviors. Taking into account social cognitive theory as a basis for possible disordered eating behaviors in sorority women, it is not difficult to believe that these same principles were driving participants to maintain a positive external orientation for their sorority. Perhaps having the sorority women complete the questionnaire outside of their sorority house surrounded by their friends and “sisters” would yield different results.

Increased education about disordered eating behaviors (as compared to clinical eating disorders) would probably be beneficial. This could be a possible implication for Health Education or Public Health advocates. Campus officials such as residence hall directors, health educators, and Greek staff should work collectively towards preventive measures against disordered eating behaviors. Information should be presented to all college females concerning healthy eating behaviors. Sororities in particular need to be targeted in order to discuss the consequences of possible disordered eating behaviors development. Also, conducting the study in a different region (north, west) may produce interesting results. Lastly, additional research is needed to further substantiate the findings of this study.

In this study, sorority affiliation was not an indication of disordered eating behaviors. There were no differences between the groups, although the sorority women did weigh an average of nine pounds less than the non-sorority women. Conceivably there is a certain type of woman who joins a sorority. Due to the fact that the mean EAT scores were similar, but the sorority group weighed less than the non-sorority women, perhaps women who are already smaller in weight are the ones who choose to join sororities. This would help to explain some of the reasoning behind the results of this study. Finally, there is the possibility that those women who have significant eating problems do not make it to college. Perhaps research
observing the number of individuals who enter college with disordered eating behaviors or eating disorders would be beneficial.
REFERENCES


Research Question

The author of this study sought to determine whether sorority women at a southeastern Georgia university had a higher prevalence of eating disordered behaviors than did non-sorority women.

Theoretical Construct/ Model

Social Cognitive or Social Learning Theory (see Table 2) states that people are influenced by the social factors which surround them. According to Albert Bandura's Social Learning Theory, there are a set of cognitive processes that inter-relate to influence different behaviors (Niaura, 2000). Several factors must be in place in order for this theory to be justified. First, the person must have a strong self-efficacy in their ability to perform a new behavior. Second, the person must also possess the knowledge and skills necessary to perform that behavior. Lastly, the person must place a high value on the expected outcome of that new behavior. Only after all of these factors are in place will the person engage in the new behavior, put effort into that behavior, and be persistent in that new behavior (Niaura, 2000). To observe this theory in the context of eating disordered behavior, one would imagine a female who is confident that she can lose weight, knows what it takes to lose weight and keep it off, and truly value weight loss.

For college women in sororities, the influence of social factors is a great one, especially for those young women who are trying to become popular within their sorority, and be popular with the opposite sex. Some studies suggest that women place greater emphasis on popularity than men and that this is correlated with a less stable self-image and a greater susceptibility to others' evaluations (Hesse-Biber & Marino, 1991). Embedded within the social cognitive theory is a concept termed situation. According to this concept, it is the individual's perception of the environment which is most important (Glanz, et al., 1997). Therefore, if a young woman involved with a sorority perceives the environment as one where she must be thin and beautiful to be popular, then this may lead to disordered eating behaviors.

Harrison and Cantor (1997) examined the relationship between media use among college women and disordered eating symptomatology. They found that media use did predict disordered eating symptomatology and accounted for the relationship by using the social learning process of modeling. The authors also found that media use was an accurate predictor of drive for thinness, body dissatisfaction, and ineffectiveness (Harrison & Cantor, 1997). Social cognitive theoretical concept of expectancies could best
describe this phenomenon. The expectancies concept is defined as the values that a person places on a given outcome (Glanz, et al., 1997). Young women are bound to place a high value on thinness with the onslaught of beautiful, thin women in the media. The bombardment of these images constantly is sure to give birth to feelings of inadequacy.

**Significance of Study**

Eating disorders affect about three percent of women over their lifetime. Bulimia nervosa is the most common of the two types of disorders, and it appears to be increasing in incidence (Walsh & Devlin, 1998). It is well documented that the overwhelming majority of those diagnosed with eating disorders and eating disordered behaviors are women (Alexander, 1998). Researchers have found that disordered eating behaviors and attitudes are prevalent among female undergraduates in general. Recent studies report that 6% of undergraduate women are concerned about eating disorders, whereas 25-40% of those women indicated moderate problems with eating disordered behaviors (Schwitzer, et al., 2001). Further studies are needed to determine why these women develop such disorders, and who exactly among college females are the most susceptible to developing anorexia and bulimia. The investigator of this research study purports to specify those subgroups of college women to determine if there is significant difference between women who are affiliated with Greek organizations and those who are not for developing disordered eating behaviors. Subsequent further developments of reported disordered eating behaviors could provide techniques which would best work for prevention, intervention, and educational strategies.

**Limitations**

The following were identified as limitations for this study:

1. The participants chosen for study were readily available to the researcher.
2. The sample was narrow and not random. It cannot be generalized to the population at large.
3. Measures are self-report so pressures may have existed for participants to respond in a particular fashion.
4. The sample size was relatively small and homogeneous.
**Delimitations**

The following were identified as delimitations for this study:

1. Subjects for this study were delimited to females.
2. The research was limited to one university.
3. There was limited participant selection due to the criteria of the study.
4. Whether or not the participant had been educated about eating disorders was considered in the demographic information.
5. The attrition rate was limited due to the research design.
6. The study was conducted in an uncontrolled environment.
7. Some Greek participants answered the survey in their corresponding sorority house surrounded by “sisters.”
8. Certain sororities on campus have meal plans for the members to utilize.

**Assumptions**

The following assumptions were made for the study:

1. The surveys administered were valid and reliable.
2. The two groups being studied were honest in their answers.
3. All items on the surveys were answered completely.

**Definition of Terms**

The following were identified as working definitions of the following terms:

1. Eating disorder- a disease which focuses on extreme body dissatisfaction, drive for thinness and dieting. A person diagnosed with such a disorder as bulimia or anorexia nervosa has an unnatural fear of gaining weight. (Wilson, N. L., & Blackhurst, A. E., 1999. Food advertising and eating disorders: Marketing body dissatisfaction, the drive for thinness, and dieting in women’s magazines. *Journal of Humanistic Counseling, Education, & Development, 38* (2), 111-122.)
2. Eating disordered behaviors- those eating behaviors which are nutritionally unstable and can eventually lead to criteria for an eating disorder. (Wilson, N. L., & Blackhurst, A. E., 1999.)
Food advertising and eating disorders: Marketing body dissatisfaction, the drive for thinness, and dieting in women’s magazines. *Journal of Humanistic Counseling, Education, & Development, 38* (2), 111-122.


9. Prevalence- the occurrence of, as in eating disorders; total number of cases of a disease in a


APPENDIX B
REVIEW OF LITERATURE

Types of Eating Disorders

The eating disorders anorexia nervosa and bulimia nervosa are serious illnesses which warrant concern (Shekter-Wolfson & Woodside, 1997). Another important phenomena to consider are eating disordered behaviors, or eating disorders not otherwise specified. These diseases affect a great number of women, and it is slowly becoming apparent that the incidence rates are rising (Tenore, 2001).

Anorexia Nervosa

“Anorexia nervosa is the syndrome of self-imposed dietary restriction related to an intense drive for thinness and distortion of the way in which an affected individual views his or her body,” (Shekter-Wolfson & Woodside, 1997, p. 12). Anorexics have a compulsive and domineering preoccupation with food, weight, dieting, and appetite. There is a misperception in the anorectic patient of an extremely distorted body image. They always perceive themselves to be fat or overweight (Chopak, 1987). This image is so skewed that reassurances and arguments from friends, family, and medical personnel have little to no impact on the individual (Shekter-Wolfson & Woodside, 1997).

Physical consequences of anorexia are plentiful: dry scaly skin; brittle and thin hair; muscle and fat loss; loss of menstrual periods and sometimes, even loss of fertility; loss of sexual desire or decreased libido; hyperactivity; an intolerance for cold; cold and clammy hands and feet; downy hair or fuzz (lanugo) on the face and other parts of the body; liver and kidney damage; loss of bone minerals resulting in fragile bones; constipation; dehydration; muscle cramps; tremors; dental problems; and occasionally death (DSM-IV, 1994).

Currently, the Diagnostic and Statistical Manual's Fourth Edition (DSM-IV) has listed the following as criteria for anorexia nervosa (Shekter-Wolfson & Woodside, 1997):

- Refusal to maintain body weight at or above a minimally considered normal weight for age and height.
- Body weight becomes less than 85% of that expected.
Intense fear of gaining weight or becoming fat, even though underweight.

Disturbance in the way in which one's body weight and shape are experienced.

Great amount of body weight and shape on self-evaluation.

Denial of the seriousness of the current body weight.

Amenorrhea (the absence of at least three consecutive menstrual cycles.)

No known physical illness which would account for weight loss.

Anorectics engage in inappropriate compensatory behaviors after they have eaten. After prolonged starvation efforts, they will use severe dietary restriction, exercise excessively, induce vomiting, abuse laxatives, enemas, and diuretics (Robinson, 2000).

**Bulimia Nervosa**

"Bulimia nervosa is the syndrome of binge-eating accompanied by efforts of some description to undo the bingeing behavior, possibly including vomiting (Shekter-Wolfson & Woodside, 1997, p.18)." Bulimics also have an obsessive attitude regarding food and weight gain accompanied by a distorted image of their bodies. It is most frequently referred to as the episodes of binge eating followed by some method of purging (Boskind-Lodahl & White, 1978; Chopak, 1987).

Physical consequences of bulimia include some of the same as anorexia: swollen glands in neck and under the jaw area; loss of tooth enamel; broken blood vessels in the face; disturbance of fluid and mineral balance leading to irregular heartbeat and possible heart attack; dehydration; fainting spells; tremors; blurred vision; damage to bowels; cramps; constipation; liver and kidney damage; internal bleeding; infection; and sometimes even death (DSM-IV, 1994).

The DSM-IV has listed the following as criteria for bulimia nervosa (Shekter-Wolfson & Woodside, 1997):

Recurrent episodes of binge-eating such as eating in a discrete period of time an amount of food which is larger than “normal” for a similar period of time and under similar circumstances, and a sense of lack of control over eating during the episode (feeling that one cannot stop eating or control how much one is eating).
Recurrent inappropriate compensatory behavior to prevent weight gain.

The binge eating and inappropriate compensatory behaviors both occur, on average, at least twice a week for three months.

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

Some of the inappropriate compensatory behaviors in which bulimics engage in after eating are self-induced vomiting, starvation, appetite suppressants, diuretics, enema and laxative abuse (Robinson, 2000).

**Disordered Eating Behaviors**

Disordered eating behaviors or patterns are those that "conform to the general guidelines for a mental disorder in the diagnostic class, but the symptomatic picture does not fully meet exact criteria for the specific disorders (Schwitzer, & Bergholz, 1998, 205). Those who demonstrate disordered eating behaviors report the same attitudes and actions as individuals with eating disorders, but at a subclinical level.

The primary feature of disordered eating behaviors is a disturbance in eating and weight management behavior. Symptoms will cause impairment in daily functioning and significant distress.

Associated features as noted by the DSM-IV are as follows (Schwitzer, & Bergholz, 1998):

- Rumination concerning eating, drinking, and weight management.
- Fragile self-image.
- Interpersonal concerns.
- Adjustment problems in various areas.

Other symptoms of disordered eating behaviors are identical to anorexia and bulimia nervosa. Again, the main factor separating this type of illness is the degree to which it is viewed on a subclinical level.

Disordered eating behaviors fall under the ED-NOS category since the behavioral symptom sets for anorexia and bulimia are only partially met (Schwitzer, et al., 2001). Some features include:

- Interpersonal concerns.
- A preoccupation with eating, accompanied by denial of an eating disorder.
- Impressive knowledge concerning calories, fat levels, and nutrition.
Frequent weighing.
Excessive exercising.
Moderate depression.
Fragile or low self-esteem.

**Incidence and Prevalence Rates**

Varied research evidence and clinical experience indicate an increase in the incidence of eating disorders (Hartley, 1998). Some researchers estimate the prevalence of clinical eating disorders in the general population to be from 0.5-1% for anorexia, approximately 2% for bulimia, and about 2% for binge eating (Rock, 1999). The full disorders affect this small percentage with atypical and less severe disordered eating behaviors being much more common (Robinson, 2000). More recently, some researchers cite the incidence at a higher rate. “During the past three decades, the prevalence of eating disorders has increased dramatically; currently the overall incidence is approximately five percent,” (Tenore, 2001).

The American Psychiatric Association estimates that at least six percent of all women have an eating disorder of some kind (Alexander, 1998). In 2001, the Eating Disorders Awareness and Prevention organization estimated that 5 million to 10 million women in the United States suffer from eating disorders.

“Because eating disorders generally develop in adolescence and are seen more frequently in women from higher socioeconomic levels, it is not surprising that the prevalence of eating disorders is particularly high in college women. Researchers have estimated that 3% to 19% of college women have bulimia, 1% to 2% have anorexia, and as many as 61% display eating disordered behaviors while not meeting the criteria for an eating disorder,” (Alexander, 1998, 66).

**Populations at Risk**

The most powerful factor for the etiology of eating disorders is the female sex (being female), and the male to female ratio of at least one to ten (Bruch, 1973; Robinson, 2000). Over 90% of those with eating disorders and disordered eating behaviors are women between the ages of 15 and 40 (Shekter-Wolfson, & Woodside, 1997). Some of the groups most affected by these illnesses are athletes (Lamparski, 1993), teenage girls (Tiggeman, 2001), and college women (Holston & Cashwell, 2000).
Athletes

One of the at risk groups for high levels of disordered eating behaviors are female athletes. There are several factors identified as possible contributors to the varying patterns of disordered eating for both athletes and non-athletes. Self-esteem, body image, and social pressure are among them (Berry & Howe, 2000). But there also may be pressure on an athlete derived from coaches, peers, or societal pressures in general.

The development of eating disorders in athletes is not clear (Lindeman, 1994). There have been three possible roles identified in the athlete eating disorder phenomenon: sports can attract already at risk and vulnerable individuals; participation itself could result in the disorder; or sports can precipitate an eating disorder in those who are predisposed to its development (Borgen & Corbin, 1976; Thompson & Sherman, 1993). But not all athletes are at risk for developing these types of disorders.

"It has been reported that sports with an emphasis on aesthetics, sports that emphasize a lean body build, and sports with weight classes have higher incidences of participants with eating disorder symptoms," (Berry & Howe, 2000, 210; Koszewski, Chopak & Buxton, 1997). These same sports have been termed "lean" sports. "Lean" sports are classified as such when appearance and weight are important indicators of success (Krane, Stiles-Shipley, Waldron & Michalenok, 2001). Some examples would include gymnastics, figure skating, and diving. Conversely, "non-lean" sports would be those such as basketball, softball, and volleyball (Krane, Stiles-Shipley, Waldron & Michalenok, 2001).

Another lean sport factor for athletes and eating disorders are uniforms. In a study conducted by Reel and Gill (1996), uniforms that cheerleaders wore were acknowledged as a large source of pressure in maintaining low body weight. Krane et al. (2001) also found that those athletes with "baggy or mixed" uniforms had significantly lower perfectionism (a possible precursor to disordered eating behaviors) than the athletes with tighter or more revealing uniforms.

An NCAA self-report survey stated that 64% of the member institutions recognized at least one student athlete within their program had experienced an eating disorder (Dick, 1990). According to Hornak and Hornak (1997) approximately one-third of female athletes struggle with severe weight control.
measures. Some researchers have hypothesized that participation in sports among college females may actually increase the potential for developing disordered eating behaviors (Kirk, et al., 2001). Not only are there sociocultural aesthetics of a thin physique for women, female athletes may at times feel tremendous pressure to strive for lower body weight in order to impress or please a coach, make the team, or maintain a competitive edge for their particular sport (Kirk, Singh & Getz, 2001).

McSherry (1984) examined the features which distinguish an athlete from an eating disordered individual, and some characteristics which they share. First, the researcher clarified the warning signs to look for in an athlete who may develop such behaviors. The warning signs are as follows:

**Warning Signs**

- Increased physical activity
- Controlled calorie consumption
- Low body weight
- Specific carbohydrate avoidance
- Resting bradycardia and hypotension
- Dietary faddism
- Amenorrhea or oligomenorrhea
- Anemia (may or may not be present)

**Distinguishing Features of the Athlete**

- Efficient energy metabolism
- Good muscular development
- Purposeful training
- Increased exercise tolerance
- Accurate body image
- Increased HDL2
- Increased O2 extraction from the blood
- Increased plasma volume
- Body fat level within defined normal range
Distinguishing Features of the Anorectic or Bulimic Athlete

- Poor or decreasing exercise performance
- Cold intolerance
- Lanugo hair
- Aimless physical activity
- Poor muscular development
- Dry skin
- Leucocyte dysfunction
- Flawed body image (believes themselves to be overweight)
- Cardiac arrhythmias
- Body fat level below normal range
- Electrolyte abnormalities if abusing laxatives and/or diuretics

Teenage Girls

A particularly vulnerable group to the effects of body weight and shape are adolescent girls (Johnson, Lewis, Love, Lewis, & Stuckey, 1984; Tiggeman, 2001). They are prone to fall into the “slender trap” by feeling pressure to conform to society’s standards of beauty (Guemina, 1998). Ninety percent of females with eating disorders are between ages 12 and 25, with seventeen and eighteen having been reported as the mean age of onset for the diagnosis of anorexia and bulimia (Kirk, et al., 2001).

“Adolescence is a time of establishing one’s identity, with concomitant increases in self-awareness, self-consciousness, preoccupation with image, and concern with social acceptance (Harter, 1999). Furthermore, as girls move through the changes of puberty, they drift away from the media perpetuated ideal shape for women (Tiggeman, 2001), thus resulting in measures such as disordered eating patterns in an attempt to maintain their “girlish” figures.

The reasons why young girls may turn to drastic weight management measures are the same as they were for female athletes. Body image, societal pressures, and low-self esteem are major contributors to the problem (Berry & Howe, 2000). Low self-esteem in particular has been shown to demonstrate a
strong negative effect on dieting in general and bingeing behaviors among adolescent girls (Neumark-Sztainer, Beutler & Palti, 1996).

Another reason why girls may feel a need to resort to eating disorders is popularity. Tiggeman (2001) found that an emphasis on popularity among girls was related to increased body dissatisfaction. The overwhelming need and search for social acceptance and popularity forces many adolescent women to engage in unhealthy weight loss practices (French, Perry, Leon & Fulkerson, 1995). Even time spent socializing was shown to have a strong positive correlation to young girls with respect to slimness, attractiveness, popularity with the same sex, and popularity with the opposite sex.

For these young girls who start experimenting with eating disorders at a young age, growing up can be a time for them to become more comfortable with their bodies and accept their shape and weight. However, it could also be a time highlighted with the freedom to engage in activities they once had to hide from parents and siblings. Growing up and moving out may provide the perfect opportunity for a young girl who had toyed with the notion of disordered eating behaviors to fully engage in such activities. For many adolescents, college provides that opportunity.

**College Women**

Many studies regarding eating disorders have focused on the college population of women. Some have stated that the incidence of disordered eating among college women is nearing epidemic levels (Thombs, Rosenberg, Mahoney, & Daniel, 1996). Studies which have exhausted this focus indicate that the increase in eating disorders from high school to college is between 4% and 19% (Kirk, et al., 2001). There are several reasons why researchers believe this higher risk in college exists. Moving to a new environment, different social codes of conduct, and decreased adult guidance are just a few (Duddle, 1973; Kirk, et al., 2001). For many students these factors provide the leeway to begin engaging in disordered eating behaviors.

The occurrence of disordered eating patterns among American college women is widespread. Studies have cited that over 60% of the women sampled exhibited some degree of disordered eating behavior (Heesacker, Samson & Shir, 2000). This clearly suggests that disordered eating is the norm, or
the rule rather than the exception. A study conducted by Tsai, Hoerr, and Song (1998) indicated that 40% of American college women had intentionally vomited to control their weight. “Even among American college women who perceived themselves as of normal weight, 88% reported wanting to be thinner,” (Raudenbush & Zellner, 1997, p. 96).

It has also been suggested that certain aspects of a campus environment may actually foster disordered eating behaviors. College campuses are stressful and partially closed environments which may serve to intensify cultural and societal pressures to be thin (Kaminski & McNamara, 1996). Some women become enclosed within an even tighter environment by joining a sorority. Sororities are social clubs that college women can join to socialize, become part of a philanthropy, and make career connections and networks (Berkowitz & Padavic, 1999). Dunn (1999) examined the forcible interaction of dating and long-term relationships among college sorority women. The author examined the influence of cultural romantic dating and the pressures that come from within the sorority to do so (Dunn, 1999).

This culture within the sorority has a strong impact on the structure and shaping of college women’s actions (Berkowitz & Padavic, 1999). This pressure to date and find a partner, as solely derived from the sorority itself, may cause many young college women to turn to drastic weight management procedures. A study conducted by Prouty, Protinsky, and Canady (2002) found that college female participants who scored 20 or above on the EAT-26 signifying disordered eating behaviors, were younger, more likely to be white, Christian, and members of a sorority.

Some other reasons for the epidemiology of these disorders are the reduction in physical activity when females enter college, change in eating habits, and an increase in control over their own lifestyles (Ondercin, 1979; Dinger, 1999). Evidence suggests that there is a rapid reduction in physical activity between the ages of 18 and 24. Also, eating habits also become worse during the college years (Dinger, 1999). Lifestyles tend to change dramatically when individuals move off to college. They gain more control and have an increased sense of freedom which allows them to engage in activities they may not have done at home. For many, this can include unhealthy eating habits such as disordered eating behaviors.

Schwitzer, et al. (2001) found that disordered eating behaviors are prevalent among sorority women. According to their study, college women with disordered eating behaviors tend to share some
similar features: preoccupation with eating, denial about the disorder, knowledge about calories, fat levels, and nutrition, and weigh themselves frequently. “These young women also tend to present several young adult development themes common among eating disorder patients in general.” (Schwitzer, et al., 2001, p. 166). These themes may include, but are not limited to the following:

- Perfectionism regarding body image, romantic and other personal relationships, and grades.
- A fragile sense of self, feelings of inadequacy, and a need to be bolstered by others.
- Self-doubt expressed as sexual intimacy questions- ambivalence about whether one is thin enough to attract a romantic partner and whether one should want to please a partner at all.
- A sense of powerlessness in intimate relationships and the world in general.

Schulken and Pinciaro (1997) reported findings to indicate that sorority women do in fact have an increased risk for developing disordered eating behaviors and eating disorders. The authors stated that thinness is the ideal among sorority women through utilization of a socio-cultural framework.

**Socio-Cultural Factors**

“Reading the literature on female socialization reminds one of the familiar image of Cinderella’s stepsisters industriously lopping off their toes and heels so as to fit into the glass slipper (key to the somewhat enigmatic heart of the prince)- when of course it was never intended for them anyway” (Boskind-Lodahl, 1976, 348).

The social/cultural climate in which we live, presents images of ideal body images and shapes for our day. In the last few decades these images have progressively become thinner, whereas the average American woman has become heavier (Spitzer, Henderson, & Zivian, 1999). Body image and media influence can be used to explain why this exists.

**Body Image**

Present in all individuals who report disordered eating behaviors are body image disturbances or distortions (Molinari, 1995). Correlates among disordered eating patterns and poor body image, such as self-esteem, have been identified (Button, Loan, Davies & Sonuga-Barke, 1997). Cultural pressures emphasize looking slim and maintaining a body image which mirrors peers’ norms and values (Guernina,
These ideal and for the most part unattainable body images are most highly perpetuated through the media. And media influence in this day and age of super technology are great.

**Media Influence**

It has been estimated that almost two thirds of women are unhappy with and significantly dissatisfied with their body size, shape, appearance, or condition (Rabak-Wagener, et al., 1998). There has been a mass marketing of body images through television advertising as well as print media which has created a powerful force of the perception of the tall, thin, and toned ideal for women (Rabak-Wagener, et al., 1998). These studies have demonstrated a disturbing trend in dieting among young women, especially through fashion advertisements.

A majority of young women reported receiving strong messages through fashion magazines that slenderness and thinness are important and are attainable dieting (Levine & Smolak, 1994). Young women also tend to view the female body as a way “to provoke, titillate, and convey a sense of subservience,” after viewing media pictures on television and in magazines (Wilson & Blackhurst, 1999, p. 112).

Harrison and Cantor (1997) found that media use predicted disordered eating behaviors after significant magazine reading. A study examining leisure activities in relation to body dissatisfaction, disordered eating, and self-esteem showed a strong correlation between hours spent watching television and lower self-esteem (Tiggeman, 2001). Tenore (2001) traced the recent history of eating disorders in his article “Challenges in Eating Disorders: Past and Present.” He notes the rise in the incidence of such disorders by illustration through media. In addition, the use of media to describe why individuals develop disordered eating behaviors is best explained through socio-cultural factors (Levine & Smolak, 1994).

**Model/ Theory**

Sociocultural theory is the most generally accepted and empirically supported explanation for the increasing rate of eating disorders (Tiggeman, 2001). Originated in the 1940s by Albert Bandura, Social Cognitive Theory has emerged from Social Learning Theory (Glanz, et al., 1997). “This theoretical model proposes that societal standards for beauty inordinately emphasize the desirability of thinness and that this
ideal of thinness is accepted by most women, although it is impossible for many to achieve,” (Tiggeman, 2001, p. 135). According to the Social Cognitive Theory, eating disorders and disordered eating behaviors are an indication of women conforming without questioning the cultural norms and social expectations of the Westernized World (Guernina, 1998).

Social Cognitive Theory

“Central to cognitive theories of eating disorders is the hypothesis that beliefs and expectancies related to body size and eating are biased in favor of selectively processing information related to fatness, thinness, dieting, and control of food intake or body weight,” (Williamson & Muller, 1999, p. 558). Social cognitive theory in relation to eating disorders describes the influence of cognition on the development and maintenance of pathological eating and weight control behaviors. Persons diagnosed with either eating disorders or disordered eating patterns have developed a disfigured schema which contains overvalued information regarding weight and shape that they incorporate from their social surroundings (Williamson & Muller, 1999).

There are eleven constructs in this theory which include: environment, situation, behavioral capabilities, expectancies, expectations, self-control, observational learning, reinforcements, self-efficacy, emotional coping resources, and reciprocal determinism (Glanz, et al., 1997).

These concepts can be utilized to describe how women in college sororities may develop eating disorders. The social and physical environment can play an important role for the development of this disease. If the relationships of the individual focus on social functions such as parties, dances, going to the beach, then a high emphasis may be placed on her appearance. If the physical environment is one surrounded with beautiful women, this could have a negative effect on the young woman.

Situational factors may be important when the cognitive or psychological factors lead one to think that they may have to take drastic measures such as an eating disorder. If emergent family characteristics emphasize beauty, thinness, and perhaps even perfectionism, this could lead to such behaviors.
Behavioral capabilities are simply having the knowledge and skills to perform some new task or behavior. If a young girl reads about anorexics and bulimics and understands the process of losing weight in that manner, she may attempt to do so herself.

Expectations are anticipatory aspects of our behavior. If we anticipate the outcome, it will cause us to be less anxious and may increase our "skill" levels for disordered eating behaviors. Expectancies on the other hand place values on those outcomes which we anticipate. If there is a high value placed on being thin, (obviously one that’s higher than maintaining your health), then one may fall into eating disorders.

Self-control involves the maintenance and function of the behavior. Anorectics and bulimics may set goals for themselves regarding how much weight they want to lose and by when. The problem with these individuals is that no matter how much weight they lose, it will never be enough. Observational learning would be used to describe for example, if a sorority house contained a few members who were active participants of disordered eating behaviors, then a new person could mimic their behaviors in order to learn how it’s done.

Reinforcements are the responses to some behavior which would increase or decrease the likelihood of that behavior happening again. If a young woman believed that she was being complimented on her new weight loss, this would encourage her to engage in the disordered eating behaviors.

Self-efficacy is simply the confidence one has in performing a behavior. If a woman is confident she can lose weight through an eating disorder, then she will engage in that behavior.

Emotional coping resources are responses that inhibit or enhance a behavior. They include psychological, stress responses, and problem solving tactics. Denial would be a psychological problem that could be used for eating disorders.

Finally, reciprocal determinism can be used to describe how disordered eating behaviors are a multi-factorial dynamic that is ever changing (Glanz, et al., 1997).
Research Inquiry

Research inquiries could be made to study the effects of different factors on eating disorders and disordered eating behaviors/patterns, to see if it is a certain vulnerable type of woman who would join a sorority and thus be at already high risk for developing such disorders, or if the sorority itself perpetuates disturbed weight control measures. Also, further research could investigate sororities in other regions of the United States other than the southeast. Perhaps different findings would be present in such areas as the north or western regions.

Summary

Eating disorders and disordered eating behaviors present a problem for many women. In particular, athletes, teenage girls, and college women are at increased risk for such disorders. There are several reasons why particular individuals develop the disorders. Some of these reasons include low self-esteem, moving to a new environment, and societal pressure. Media influences have been cited many times as being an extreme factor for the causation of eating disorders.
APPENDIX C
**Setting of Study**

This study was set at a mid-sized university in southeast Georgia. Undergraduate enrollment at the university is approximately 15,000 students, with graduate enrollment at approximately 2,000. About 55% of the students are female, and the majority of all students are White (67%). Most students are from within the state of Georgia, while only 20% come from out-of-state. Twelve percent of females on campus are actively involved with sororities. There are over 1,600 women with Greek affiliation among seven different national sororities. All sororities have houses on “Greek Row” with the exception of one.

Epidemiological rates for the prevalence of eating disorders in the general population are about 0.5-1% for anorexia, and 1-3% for bulimia (Hartley, 1998; Rock, 1999). One study even cited the incidence rate at almost 5% (Tenore, 2001). This would indicate that for the setting being researched, approximately 32 sorority women would have an eating disorder.

**Research Design**

The research methodology employed was a quantitative, quasi-experimental, correlational design. This type of research methodology was valued over others because it was the primary goal of the author to record and measure existing conditions between sororities and eating disordered behaviors (Neutens & Rubinson, 1997).
Cover Letter to Subjects

Disordered Eating Behaviors Study
Consent to Participate
Georgia Southern University
Department of Public Health
College of Health & Human Sciences
(Faculty Advisor: Dr. Joanne Chopak)

Thank you for taking the time to voluntarily participate in this study. As you may be aware, disordered eating behaviors are a problem for some women in college. As a graduate student working towards a Master of Public Health, I wish to survey young college women to learn how prevalent disordered eating behaviors are on campus among sorority and non-sorority participants. Disordered eating behaviors can have negative consequences similar to eating disorders. The primary feature of disordered eating behaviors is a disturbance in eating and weight management behavior. Symptoms may cause a disruption in daily functioning and significant distress.

Three hundred-seventy two sorority and non-sorority women are being asked to participate if they are at least 18 years old and a full time student at this university. You are being asked to complete the Eating Attitudes Test (a survey of 26 questions). It should take approximately ten minutes to complete the questionnaire. We do ask that you keep your answers private and complete the form on your own. Please answer the questions as honestly as possible. Do not place your name anywhere on the questionnaire in order to assure anonymity. The results of the survey will remain anonymous as there are no personal identifiers on the questionnaire. You may withdraw your participation at any time during the survey period. If you choose not to participate, you will not suffer any academic penalty. Access to the data will be given only to the researcher and the advisor to the study. Again, thank you for your participation in this study.

As a participant, you may benefit from this research by becoming aware of the causes of disordered eating behaviors. Once the data have been analyzed, results will be used to plan interventions and various programming to address this health concern. Also, by completing the questionnaire, you are providing permission for me to use the data in my thesis.

If you have any questions or concerns about your rights or your student’s rights as a research participant in this study, they should be directed to the Coordinator at the Office of Research Services and Sponsored Programs at (912) 681-5465. If you have any questions or concerns, please don’t hesitate to contact me, or my faculty advisor at:

Angela L. Guzman  912-871-6844  guzman19@hotmail.com
Dr. Joanne Chopak  912-871-1530  jchopak@gasou.edu
Informed Consent/IRB Forms

Disordered Eating Behaviors Study
Informed Consent
Georgia Southern University
Department of Public Health
College of Health & Human Sciences
(Faculty Advisor: Dr. Joanne Chopak)

Thank you for taking the time to voluntarily participate in this study. After reading the following statements, please place a check on the appropriate line if you agree with the terms.

_____ I understand that I will be asked to fill out a questionnaire.

_____ I understand I may choose to withdraw my participation in this study at any time, without penalty. I may also refuse to be associated with any of the processes involved without affecting my student or organization's status with the University.

_____ I understand the information I provide will remain anonymous. I will not place my name on any part of the questionnaires to ensure anonymity. Results from the study will not identify anyone individually.

_____ I understand the possible risks or harm caused by my participation in this study are little to none and that those risks include possible psychological problems such as stress concerning the possibility of having a disordered eating pattern, or self-doubt about the certain actions and behaviors.

_____ I understand that I must be at least 18 years old and a full time student at Georgia Southern University.

The study is intended to determine the prevalence of disordered eating behaviors among college women. As a participant you can benefit by becoming educated about the causes and available treatments or interventions for the future. Society could benefit by reading the study and thus become more aware of this problem in our culture. As individuals, the participants can pass on the knowledge they will gain from the research to other persons not involved in the study.

You may refuse to participate without affecting your student or organization's status with the University.

You may ask questions of the researcher or the Institutional Review Board at any time during or after study participation. If you have any questions regarding this study, or would like a copy of the results once the research has been completed, please contact Angela L. Guzman at (912)-871-6844 or guzman19@hotmail.com.

I __________________________ agree to participate in this research project. I have had the study explained to me and my questions have been answered to my satisfaction. I have read the description of this study and give my consent to participate. I understand that I may withdraw at any time without penalty. I will be provided with a copy of the consent form.

Participant’s Signature ______________________ Date ______________
Eating Attitudes Test
Eating Attitudes Test (EAT-26)

Instructions to Subjects

➢ Please fill out the questionnaire by yourself.
➢ Please fill out the questionnaire COMPLETELY and HONESTLY.
➢ It should take approximately ten minutes to finish the questionnaire.
➢ Please do not skip any answers. There are no right or wrong answers.
➢ Please do not share your answers with others.

Please answer the questions honestly. There are no right or wrong answers. Your answers are completely confidential. Please circle a response for each of the following statements:

1. Am terrified of being overweight
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never

2. Avoid eating when I am hungry
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never

3. Find myself preoccupied with food
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never

4. Have gone on eating binges where I feel that I may not be able to stop
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never
5. Cut my food into small pieces
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never

6. Aware of the caloric content of foods that I eat
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never

7. Particularly avoid food with a high carbohydrate content (i.e. bread, rice, potatoes)
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never

8. Feel that others would prefer if I ate more
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never

9. Vomit after I have eaten
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never

10. Feel extremely guilty after eating
    a. always
    b. usually
    c. often
    d. sometimes
    e. rarely
    f. never
11. Am preoccupied with a desire to be thinner
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never

12. Think about burning up calories when I exercise
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never

13. Other people think I am too thin
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never

14. Am preoccupied with the thought of having fat on my body
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never

15. Take longer than others to eat my meals
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never

16. Avoid foods with sugar in them
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never
17. Eat diet foods  
   a. always  
   b. usually  
   c. often  
   d. sometimes  
   e. rarely  
   f. never  

18. Feel that food controls my life  
   a. always  
   b. usually  
   c. often  
   d. sometimes  
   e. rarely  
   f. never  

19. Display self control around food  
   a. always  
   b. usually  
   c. often  
   d. sometimes  
   e. rarely  
   f. never  

20. Feel that others pressure me to eat  
   a. always  
   b. usually  
   c. often  
   d. sometimes  
   e. rarely  
   f. never  

21. Give too much time and thought to food  
   a. always  
   b. usually  
   c. often  
   d. sometimes  
   e. rarely  
   f. never  

22. Feel uncomfortable after eating sweets  
   a. always  
   b. usually  
   c. often  
   d. sometimes  
   e. rarely  
   f. never
23. Engage in dieting behavior
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never

24. Like my stomach to be empty
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never

25. Have the impulse to vomit after meals
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never

26. Enjoy trying new rich foods
   a. always
   b. usually
   c. often
   d. sometimes
   e. rarely
   f. never
Background Information

Please provide the following information to the best of your knowledge. Unless otherwise indicated, please place a check by only one response.

1. What is your age? ____

2. What is your current height? ____

3. What is your current weight? ____

4. What is your highest weight? (excluding pregnancy) ____

5. What was your lowest adult weight? ____

6. Which best describes your status in school?
   - Freshman ___  Sophomore ___  Junior ___  Senior ___  Graduate ___

7. With which ethnic/racial group do you identify?
   - Black ___  Asian ___  White ___  Hispanic ___  Pacific Islander ___
   - Alaskan Native ___  Native American ___  Multiracial ___  Other ___

8. Which best describes your parents' income and education level?
   - Upper class ___  Upper-Middle ___  Lower-Middle ___  Lower Class ___

9. Do you participate in athletics at any of the following levels?
   - Intramural ___  Recreational ___  Collegiate ___

10. How competitive are you?
    - Very ___  Somewhat ___  Not Very ___  Not At All Competitive___

11. Are you currently a member of a Greek women's organization (sorority)?
    - Yes ___  No ___

12. Have you ever been diagnosed with or received treatment for an eating disorder?
    - Yes ___  No ___

13. If so, which one?  Anorexia ___  Bulimia ___  Binge eating ___

14. Have you attended an educational session about eating disorders?
    - Yes ___  No ___

15. Do you believe that you are over or under weight?  Overweight ___  Underweight ___

16. Are you satisfied with your weight?
    - Yes ___  No ___

17. Have you participated in the following?  (Check all that apply)
    - Self-induced vomiting ___  Daily weighing ___  Abuse of diuretics ___  Laxative abuse ___
    - Self-deprecating thoughts ("I am too fat") ___  Carbohydrate avoidance ___  Binge eating ___
    - Overexertion through physical activity ___
Scoring Procedures

Eating Attitudes Test

Scoring for the first 25 items on the EAT-26 were as follows:

<table>
<thead>
<tr>
<th>Response</th>
<th>Numerical Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>3</td>
</tr>
<tr>
<td>Usually</td>
<td>2</td>
</tr>
<tr>
<td>Often</td>
<td>1</td>
</tr>
<tr>
<td>Sometimes</td>
<td>0</td>
</tr>
<tr>
<td>Rarely</td>
<td>0</td>
</tr>
<tr>
<td>Never</td>
<td>0</td>
</tr>
</tbody>
</table>

Scoring for item 26:

<table>
<thead>
<tr>
<th>Response</th>
<th>Numerical Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>0</td>
</tr>
<tr>
<td>Usually</td>
<td>0</td>
</tr>
<tr>
<td>Often</td>
<td>0</td>
</tr>
<tr>
<td>Sometimes</td>
<td>1</td>
</tr>
<tr>
<td>Rarely</td>
<td>2</td>
</tr>
<tr>
<td>Never</td>
<td>3</td>
</tr>
</tbody>
</table>

To determine the final EAT score, the researcher added up the numbers for each item. A score of 20 or above normally identifies a significant proportion of women with eating disorders or subclinical forms of the disorders (Crowther & Sherwood, 1994).
Dear Sir or Madam,

I am writing this letter to request your assistance in my research study. I am currently working on my thesis for the Master's of Public Health program here at Georgia Southern University. My topic is to examine disordered eating behaviors among college women. I am interested in finding the prevalence of how widespread this behavior is by administering questionnaires to young women on our campus.

The questionnaires would be distributed and completed within the first/last few minutes of one of your class meetings. I am requesting your permission to recruit participants during one of your classes by administering the survey.

Participation in this study is strictly voluntary. The questionnaire will take approximately 10 minutes to complete.

Please complete the information below and return in the self-addressed envelope by________________:

Date for study________________

Building________________

Class #________________

Name________________

Phone No.________________

I will call you to schedule a time that is mutually agreeable to administer the survey to your students.

Thank you very much for your time and assistance. If you have any questions, please don’t hesitate to call: 912-871-6844, or e-mail: guzman19@hotmail.com.

Sincerely,

Angela L. Guzman
Dear Madam,

I am writing this letter to request your assistance in my research study. I am currently working on my thesis for the Master’s of Public Health program at Georgia Southern University. My topic is to examine disordered eating behaviors among college women. I am interested in finding the prevalence of how widespread this behavior is by administering questionnaires to young women on our campus.

I am requesting your permission to recruit participants for my study. The questionnaires would be distributed and completed within a few minutes at the beginning of one of your chapter meetings. Participation in this study by your sorority house or any individual members is strictly voluntary. It would be greatly appreciated. The questionnaire will take approximately 10 minutes to complete.

Please complete the information below and return in the self-addressed envelope by today’s date:

[House Name] [Phone Number]

I will call you to schedule a time that is mutually agreeable to administer the survey to your members.

Thank you very much for your time and assistance.

Sincerely,

Angela L. Guzman

If you have any questions, please don’t hesitate to call:
912-871-6844, or e-mail: guzman19@hotmail.com
Institutional Review Board
Georgia Southern University
Approval Form

1. Department Public Health Request # S200211 Date Submitted 10/21/02

2. Principal Investigator (PI) if student, include Faculty Advisor (FA):
   Angela L. Guzman (PI) / Dr. Joanne S. Chopak (FA)
   PI Telephone No. (912) 871-6844 Address 2075 Old Register Rd. #131
   FA Telephone No. (912) 871-1530 Address PO Box 8076
   E-mail: guzman19@hotmail.com jchopak@gasou.edu


4. PI or FA Recommendations
   ___ Exempt ___ Expedited Review ___ Full Review

5. DIRB Recommendations
   ___ Exempt ___ Expedited Review ___ Full Review

   PI Signature ___________________________ Date ______
   FA Signature ___________________________ Date ______
   DIRB Chair _____________________________ Date ______
   Department Chair ______________________ Date ______

Determination of Institutional Review Board

Human Participants: _____ At Risk _____ Not At Risk

Action: _____ Approved _____ Not Approved _____ Reapproved
         _____ Exempt-Department Approved _____ Return for Revisions

Signed: ___________________________ Date ______
       Chair, IRB
Georgia Southern University  
Department of Public Health  
College of Health & Human Sciences  

Departmental Approval Form  

Researcher  
I have read the University IRB Policies and Procedures on the use of human participants in research and agree to abide by them. I agree to report any significant and relevant changes in procedures and instruments as they relate to participants to the review committee for consideration. I also understand the feedback containing information that infers a participant is at risk should be provided to the participant by an individual with faculty status. I understand that any questions I have regarding the use of Human Participants should be referred to the Chair of the DIRB committee.  

DATE 10/21/02  
Signed (PI)  

DATE  
Advisor’s Signature  

DIRB & Department Chair  

___ A. The research using human participants described on this form involves no significant issues of human rights or participant welfare. The department approves this proposal in its present form and requests that it be exempt from University IRB Review.  

___ B. The research using human participants described in this proposal has the department’s approval. The study proposed does not involve any obvious violations of human rights or participant welfare but before activation of the department research requests an expedited review from the University IRB.  

___ C. The research using human participants described in this proposal has the department’s approval. Since the study proposed involved significant issues of human rights and participant welfare, the department requests a full review of the proposal by the University IRB.  

Signature of DIRB Chair  

Signature of Department Chair  

Date  

Date
Statement of Problem: Eating disorders represent a significant health concern for women. Approximately 90% of people diagnosed with eating disorders are women (Alexander, 1998). Bulimia and anorexia nervosa are among the most prevalent types of eating disorders. In order for a person to be diagnosed with an eating disorder, specific criteria must be met as outlined in the Diagnostic and Statistical Manual IV (Schwitzer, Rodriguez, Thomas, & Salimi, 2001). Similarly, many young women display a subclinical variation of a full-blown eating disorder that is referred to as disordered eating behaviors. To be identified as demonstrating disordered eating behaviors/patterns, one must meet only partial symptoms for bulimia and anorexia nervosa. Furthermore, in 2001, The Eating Disorder Not Otherwise Specified (NOS) framework was developed (Schwitzer, 2001). This tool can be used to describe persons at risk for disordered eating behaviors, but who do not actually meet criteria for having an eating disorder. The NOS category would be used when some behavioral criteria for anorexia nervosa are present, but the person still maintains normal body weight or menstruation. The purpose of this study was to examine the prevalence of disordered eating patterns among sorority versus non-sorority women.

Research Design: The research methodology employed was a quantitative, quasi-experimental design. The methodology included administration of survey questionnaires to both sorority and non-sorority women at a campus in southeastern Georgia. Using an a priori power analysis, the target sample size is approximately 372 women. Sub-group sample sizes are as follows: 124 sorority women, 248 non-sorority women (Daniel, 1987). Participants were recruited during sorority chapter meetings and class sessions. Participants were notified that refusal to participate will not affect their organization’s status with the University. The Eating Attitudes Test (Garner & Garfinkel, 1979) was used to determine the prevalence of disordered eating behavior among college-aged women. Background information was also collected to help describe the sample further. Information included questions about age, race, height, and weight, socioeconomic level, level of competitiveness, and participation in extracurricular activities such as intramural or collegiate sports. The investigator administered the surveys in person during a pre-arranged meeting. Surveys were anonymous. After the data was collected and analyzed, the surveys were destroyed. No identifying information, such as name or other identifiers was included on the questionnaire. (Appendix A)

Possible Risk to Human Participants: A potential risk for the human participants would be psychological problems. Psychological problems would include stress about the possibility of having a disordered eating pattern, or self-doubt about the participants’ actions and behaviors. The researcher provided educational materials to any interested party that included where to obtain services and an educational session.

Possible Benefits to Human Participants and Society: The subjects will benefit from the study by becoming educated about the causes and available treatments or interventions for the future. (The investigator provided a brief presentation about the dangers of eating disorders upon completion of the surveys.) Society could benefit by reading the study and thus become more aware of this problem in our culture. As individuals, the participants can pass on the knowledge they will gain from the research to other persons not involved in the study.
V. Information about Participants to be Utilized in Research: Participant's demographic information was utilized in the research. All participants were at least 18 years old and full time students. Information collected included height, weight, race, age, participation in athletics, socioeconomic class, and grade level in school. Participation as member of a sorority was also included.

VI. Materials and Procedures to be Used: Materials used in the research were pencils, the EAT-26 questionnaire, informed consent forms. Procedures for the study were as follows: The investigator explained the nature and purpose of the study and how to complete the survey. Participants were assured anonymity (names will be excluded) and confidentiality (no additional method of identification such as sorority affiliation was included on the survey questionnaire).
Georgia Southern University  
Department of Public Health  
College of Health & Human Sciences

STATUS REPORT FORM  
THIS SECTION TO BE COMPLETED BY THE DIRB CHAIR

Date Received:  
Project Number: 

Principle Investigator: Angela L. Guzman 

Faculty Advisor: Dr. Joanne S. Chopak 

Co-Investigator:  
PO Box: 8043  
E-mail: guzman19@hotmail.com  
Campus Phone: 871-1732 

Off Campus Address: 2075 Old Register Rd. #131 Statesboro, GA 30458 

Off Campus Phone: 912-871-6844 

Title of Project: “The Prevalence of Eating Disordered Behavior Among Sorority versus Non-sorority Women.”

APPROVED FOR THE PERIOD _______________ TO _______________

SIGNED: _______________ 

Any research conducted after the expiration date shown above is not covered by IRB approval, and cannot be retroactively approved.
THIS SECTION TO BE COMPLETED BY THE INVESTIGATOR

Investigators: Complete this section and send to the Chair of the DIRB to: (1) requests approval of changes; (2) request for an extension of the approval period; (3) report completion of an approved study. Please allow sufficient time for approval requests (typically one to two weeks). Also, please retain a copy of this form for your files. The DIRB Chair will submit to the IRB Chair and will inform you of the status.

Mark the appropriate line:

___ Need to make changes.

___ Need to extend approval period for data collection through ____________________________

___ Data collection has been completed as approved by the DIRB and IRB and the file can now be closed.

Return this form to Dr. Matthew A. Williamson, DIRB Chair, Department of Public Health, Georgia Southern University, Statesboro, GA 30460-8076.
Table 17
Description of Statistical Testing

<table>
<thead>
<tr>
<th>Research Hypothesis</th>
<th>Variables</th>
<th>Variable Classification</th>
<th>Statistical Test Employed</th>
<th>Justification of Statistical Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>The prevalence of disordered eating behaviors will be greater in the sorority versus non-sorority group.</td>
<td>Sorority group</td>
<td>Independent, Nominal</td>
<td>Frequencies</td>
<td>Determine if those in the sorority group report eating disordered behaviors more frequently.</td>
</tr>
<tr>
<td></td>
<td>Non-sorority group</td>
<td>Independent, Nominal</td>
<td>Descriptives</td>
<td>Determine the means and standard deviations for both groups.</td>
</tr>
<tr>
<td></td>
<td>Disordered Eating Behaviors</td>
<td>Dependent, Nominal</td>
<td>Chi-Square Analysis</td>
<td>Depict association between the two groups.</td>
</tr>
<tr>
<td></td>
<td>Sorority and Non-Sorority Groups, Disordered Eating Behaviors</td>
<td>Independent and Dependent, Nominal</td>
<td>Independent T-Test</td>
<td>Examine the significance of eating disordered behaviors between the two groups.</td>
</tr>
<tr>
<td></td>
<td>Sorority and Non-Sorority Groups, Disordered Eating Behaviors</td>
<td>Independent and Dependent, Nominal</td>
<td>Two-Way ANOVA</td>
<td>Determine simultaneous comparisons for groups.</td>
</tr>
</tbody>
</table>
Biographical Summary

Graduate School
Georgia Southern University

Angela Lynn Guzman

Date of Birth: September 14, 1977

2075 Old Register Road
#131
Statesboro, Georgia 30458

Georgia Southern University 1996-2000
Bachelor of Science- Psychology

Thesis Title:

The Prevalence of Disordered Eating Behaviors Among Sorority Versus Non-Sorority Women

Major Professor: Dr. Joanne Chopak
Vita

Angela Lynn Guzman

2075 Old Register Road, Lot 131 ♦ Statesboro, Georgia 30458
Home Phone: (912) 871-6844 ♦ E-mail: guzman19@hotmail.com

EDUCATION

Georgia Southern University
Graduation: May 2003
Statesboro, GA
Master of Public Health
Emphasis in Community Health Education
GPA: 4.0
Related Course Work: Bio-statistics, Health Behavior Theory, Epidemiology, Environmental Health, Health Services Administration, Research Methods in Health Science, Health Promotion Planning and Evaluation, Community Health Education Methods, Social Marketing and Health Communication, Rural Community Health Issues, Health Policy, Issues, and Ethics, and Multicultural and Diversity Education.

Georgia Southern University
Graduation: December 2000
Statesboro, GA
Bachelor of Science
Psychology Major
GPA: 3.8

HONORS AND AWARDS

• Hope Scholarship Recipient (1996-2000) - Georgia Southern University.
• Psi Chi Psychological Honor Society (1997-2000) - Georgia Southern University.
• Minority Advisement Program Certificate of Academic Achievement (1997) - Georgia Southern University.
• Black Student Alliance Certificate of Academic Achievement (1998) - Georgia Southern University.
• Phi Eta Sigma Freshmen Honor Society (1996-1997) - Georgia Southern University.
• Gamma Beta Phi Biological Honor Society (1996-1997) - Georgia Southern University.
• Honors Day Outstanding Dean’s List Student (1999) - Georgia Southern University.
• Campus Recreation and Intramural Sports Most Valuable Player, Co-Rec Softball (1999-2000) - Georgia Southern University.
PROFESSIONAL EXPERIENCE

Georgia Southern University, Statesboro, GA
Graduate Assistant- Health Education Office August 2001- present

Assist the Health Educator in developing, implementing & evaluating all programs and events. Aid in the supervision of 5 office assistants, 25 peer educators, and over 100 volunteers. Coordinate health events with the Health Educator, campus leaders, and community organizations. Act as a liaison between the campus and community organizations with the Health Education office. Co-instruct the Peer Health Education Training course for 25 undergraduate students. Provide information at all health events. Our office provides information through literature, presentations, and various media outlets in order to bestow healthy living practices to both students and faculty on campus. We conduct our own public relations strategies and marketing tools.

As a Graduate Assistant, I also provided newspaper articles on a weekly basis for nearly 3000 undergraduate campus residents. While teaching the Peer Health Education Training course, I developed a curriculum, taught classes, graded tests and written assignments.

Georgia Southern University, Statesboro, GA
Admissions Counselor/Recruiter- Office of Admissions December 2000- August 2001

Attempted to matriculate prospective transfer and freshmen students from Georgia, South Carolina, and Florida. Acquainted students, faculty, and counselors with varied information through oral presentations. Delivered Open House programming for more than 500 guests and visitors. Organized S.O.A.R. programs through the Admissions office with the aid of the S.O.A.R. Coordinator. Investigated and calculated new budget proposal for University Honors Program.

Georgia Southern University, Statesboro, GA

Assisted with recruitment, selection, training, and supervision of twenty new S.O.A.R. (Southern’s Orientation Advisement and Registration) members. Worked as a team with three individuals to plan orientation for nine, two-day freshmen sessions and two, one-day transfer sessions. Served as a role model for incoming freshmen and transfer students. Facilitated small groups which acquainted new students with campus resources and services. Assisted in advisement and registration procedures.

VOLUNTEER EXPERIENCE

- American Red Cross (2001-2003) – Statesboro Chapter
- Georgia Southern University Student Disability Resource Center (1997-1998)
- Multicultural Advisement Program Sponsor (1996)- Georgia Southern University

PROFESSIONAL MEMBERSHIPS

- American Public Health Association
- Georgia Public Health Association
INSTITUTIONAL SERVICE AND COMMITTEE AFFILIATION

- *Project Coordinator-* Social Norming and Alcohol Programming for Campus Officials
- *University Wellness Council-* Subcommittee person for student and faculty wellness education.
- *Student Affairs Wellness Task Force*
- *Women's Awareness Week Planning Committee*
- *Rape Crisis Prevention Center-* Graduate Member

PROGRAMMING

- World AIDS Day
- Eating Disorders Awareness Week
- Sexual Responsibility Week
- Tie One On For Safety
- National Condom Month
- National Condom Day
- National Collegiate Alcohol Awareness Week
- Safe Spring Break... The Time of Your Life
- Water Awareness and Hydration Week
- Alcohol Awareness Month
- Safer Sex Awareness Week
- The Great American Smoke-out
- Breast Cancer Awareness
- National Red Ribbon Week
- Georgia Southern University Wellness Day
- Southern Says Thanks
- Stress Awareness
- Cold, Flu, & Pneumonia
- American Heart Month
- National STD Month
- Allergy and Asthma Awareness Month
- Breast Cancer Awareness Month
- National Depression Screening Day
- National Drunk and Drugged Driving Prevention Month
- Rape Awareness
PROFESSIONAL CAMPUS PRESENTATIONS
(Grouped by topic and number of times presented.)

Guzman, A. L. “STDs and Safer Sex.” Presented at Georgia Southern University Freshmen Orientation and Residence Halls, Statesboro, GA. (48 presentations between August 2001 and May 2003).

Guzman, A. L. “Safer Sex and You.” Presented at Georgia Southern University Freshmen Orientation and Residence Halls, Statesboro, GA. (35 presentations between August 2001 and May 2003).

Guzman, A. L. “STDs, Safer Sex and Alcohol.” Presented at Georgia Southern University Freshmen Orientation and Residence Halls, Statesboro, GA. (32 presentations between August 2001 and May 2003).

Guzman, A. L. “Safer Sex and Alcohol.” Presented at Georgia Southern University Freshmen Orientation and Residence Halls, Statesboro, GA. (30 presentations between August 2001 and May 2003).

Guzman, A. L. “STDs, Safer Sex and Drugs.” Presented at Georgia Southern University Freshmen Orientation, Statesboro, GA. (6 presentations between August 2001 and May 2003).

Guzman, A. L. “Health Services, Safer Sex and Alcohol.” Presented at Georgia Southern University Freshmen Orientation, Statesboro, GA. (5 presentations between August 2001 and May 2003).


Guzman, A. L. “STDs, Safer Sex, Drugs and Alcohol.” Presented at Georgia Southern University Freshmen Orientation, Statesboro, GA. (4 presentations between August 2001 and May 2003).

Guzman, A. L. “Eating Disorders and Disordered Eating Behaviors.” Presented at Georgia Southern University Greek Women’s Housing, Statesboro, GA. (2 presentations between August 2001 and May 2003).


Guzman, A. L. “Alcohol on Campus.” Presented to Georgia Southern University ROTC Personnel, Statesboro, GA. (March 2003).
REFERENCES

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Additional References Available Upon Request