

## ABSTRACT

### THE RELATIONSHIP OF SORORITY MEMBERSHIP WITH BODY OBJECTIFICATION AND SOCIAL PRESSURE IN SORORITY WOMEN AT A MIDWESTERN UNIVERSITY

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Body objectification and social pressure are risk factors for developing eating disorders. Currently there is limited research on specific populations like sorority women who are at an increased risk for developing these disorders. This study used Dr. Nita McKinley's Objectified Body Consciousness Scale and the Social Pressure subscale from the Sociocultural Attitudes Towards Appearance Questionnaire-4 to better understand the relationship of sorority membership with body objectification and social pressure. It was found that the longer women were members of a sorority the less body shame they experienced and the longer they lived in a sorority house the less body surveillance, body shame, and social pressure they experienced. Alternatively, higher levels of social pressure were positively correlated with increased levels of body surveillance and body shame. This research identifies a need to focus on primary prevention of eating disorders and to further understand risk factors in the sorority population.

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THE RELATIONSHIP OF SORORITY MEMBERSHIP WITH BODY  
OBJECTIFICATION AND SOCIAL PRESSURE IN SORORITY  
WOMEN AT A MIDWESTERN UNIVERSITY

BY

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## OPERATIONAL DEFINITIONS

Body objectification occurs when an individual's body parts or functions are separated from the person and reduced to the state of instruments or regarded as representing the entire person.<sup>1,2,3</sup> In this study, body objectification includes body surveillance, body shame, and appearance control beliefs.

Social pressure is influence from others encouraging an individual to change their beliefs, values, and behaviors. In this study, social pressure measures the pressures sorority women feel in regards to their appearance from their sorority sisters.

Subthreshold eating disorder is a term used to describe an eating disorder that does not meet the full formal diagnostic criteria.<sup>4</sup>

Length of time in sorority is being used in this study to describe how long an individual has been a member of a sorority at Northern Illinois University.

Living in a sorority house entails residing in one of the seven off campus sorority houses at Northern Illinois University.



## CHAPTER 1

### INTRODUCTION

Although the most widely recognized forms of eating disorders like Anorexia Nervosa (AN), Bulimia Nervosa (BN), and Binge Eating Disorder (BED) garnish much attention, subthreshold eating disorders not meeting the full diagnostic criteria are two to five times more common.<sup>5</sup> Even though these disorders do not meet the formal diagnostic criteria, they still warrant consideration and professional attention. It is crucial to understand the populations who are not receiving clinical care, as early detection can greatly increase the chances of a full recovery.<sup>4</sup> While eating disorders can affect anyone and do not discriminate between age, gender, or race, they typically develop during adolescence<sup>4</sup> and subthreshold eating disorders centered around body objectification, body dissatisfaction, and weight preoccupation appear more often in college students than in the general population.<sup>6,7</sup> As subthreshold eating disorders flourish among college students, many researchers have begun to look at specific subgroups within the college environment like sorority membership that may encourage these behaviors.<sup>8</sup> Sorority membership can become an integral part in college women's identities and as a result from the increased focus on appearance and internalization of the thin ideal, stemming from social pressures,<sup>9</sup> some research has identified that they may be more likely to have higher levels of body objectification.<sup>8</sup>

AN is characterized by a persistent energy intake restriction, an intense fear of gaining weight and being fat or persistent behavior interfering with weight gain, and a disturbance in self-perceived weight or shape.<sup>10</sup> BN is characterized by recurrent episodes of binge eating, recurrent inappropriate compensatory behaviors to prevent weight gain, and self-evaluation that is influenced by body weight and shape.<sup>10</sup> BED is characterized by recurrent episodes of binge eating and binge eating episodes that are associated with at least three of the following: eating more rapidly than normal, eating until feeling uncomfortably full, eating large amounts of food when not hungry, eating alone and feeling embarrassed about the amount of food, or feeling disgusted, depressed, or guilty after eating.<sup>10</sup> The final categories of feeding and eating disorders in the DSM-5 are Other Specified Feeding or Eating Disorder (OSFED) and Unspecified Feeding or Eating Disorders (UFED), which encompass the remaining feeding and eating disorders that do not fit into other classifications.<sup>10</sup> These two categories are replacing the former classification, which was titled Eating Disorder Not Otherwise Specified (EDNOS).<sup>10</sup>

The prevalence estimates for women with AN, BN, BED, OSFED are .4%, 1-1.5%, 1.6%, and 4.64% respectively.<sup>10</sup> The incidence of eating disturbances continues to grow among college students, especially women<sup>11</sup> and the transition to a collegiate environment can be a vulnerable time for the development and/or continuation of eating issues, as parents typically have little control or influence on eating behaviors.<sup>7</sup> This transition is also noted for the emergence of risky health behaviors that can place individuals at risk for developing health problems.<sup>12</sup> While full blown AN and BN occur in a minority of college women, there is much research indicating that subthreshold eating disorders are quite common in this population<sup>13</sup>, with some research indicating 17%-20% of all college females exhibit some

form of an eating disorder.<sup>14</sup> Subthreshold eating disorders are often associated with body image dissatisfaction and weight preoccupation, which is not surprising considering the emphasis and social pressures placed on appearance in the collegiate environment.<sup>7</sup> 3

Within a college community, various subgroups emerge and tend to be at an increased risk of developing issues related to eating. Different peer groups throughout the university can have a huge impact on individuals' eating behaviors because attaining a specific weight or shape may be reinforced by group norms.<sup>7</sup> Research on this topic has identified that sorority membership is related to shaping attitudes, beliefs, and thoughts regarding body shape and food of its members.<sup>8</sup> There were 3,127 undergraduate National Panhellenic Conference chapters and a total of 325,772 undergraduate members who were a part of sororities in the academic year of 2012-2013<sup>15</sup>, which indicates a large amount of women in this population who may be at an increased risk for developing eating disorders.

### Justification

Although it is common to see individuals with eating disorders in a clinical setting associated with sororities, research supporting this idea is evolving.<sup>13, 16</sup> Surprisingly, there is very little research that has been conducted on sororities given the overwhelming perception that sorority women are at an increased risk for eating disorders due to their high preoccupation with body image and appearance.<sup>8, 13, 16</sup> While there has been some research done on this population, there is still a great need for more conclusive results.<sup>8, 13, 16</sup> As previously stated, the number of women in sororities throughout the country is very high,<sup>15</sup>

which is why it is crucial to investigate if sorority membership plays a role in developing 4  
disordered eating behaviors.

### Statement of Problem

Given the prevalence rates of AN, BN, BED, OSFED, and subthreshold eating disorders, it is imperative to better understand the relationship of sorority membership, social pressures, and body objectification, which was measured through body surveillance, body shame, and appearance control beliefs, in order to prevent these disorders from forming. To date, there is limited research on the relationship between sorority membership, social pressures, and body objectification and this study aimed to shed light on this issue.

### Purpose/Goals of Research

The purpose of this research was to increase the body of knowledge related to sorority women, social pressure, and body objectification. Other implications of this research were to identify if the length of time spent as a sorority member and the length of time spent living in the sorority house were related to social pressure and body objectification. Social Pressure was measured using the social pressure subscale from the Sociocultural Attitudes Towards Appearance Questionnaire-4 developed by Dr. Kevin J. Thompson<sup>17</sup> and body objectification was measured using the Objectified Body Consciousness Scale developed by Dr. Nita McKinley in 1996 through three separate subscales (body surveillance, body shame, and appearance control beliefs).<sup>18</sup>

It is commonly known that eating disorders have the highest mortality rate of any other mental illness and early detection, intervention, and treatment is critical in giving the best chance of recovery.<sup>19</sup> While there have been several types of eating disorder prevention programs, only 5% of those evaluated have produced lasting reductions in current or future eating disorder symptoms.<sup>20</sup> Many previous intervention programs have utilized a psychoeducational, didactic approach that provides information about dieting, eating disorders, consequences of disordered eating behaviors, and healthy eating<sup>21,22</sup>, but this method has provided inconsistent effects on body image and/or eating behavior. Further, while knowledge regarding disordered eating typically increases with use of prevention programs, actual attitudes or behaviors generally remain unchanged.<sup>23</sup> Another reason previous programs have been limited in their success is that many include a universal versus targeted focus – such as only assessing those at risk for eating disorders.<sup>21</sup>

Programs and services available on college campuses were identified around the country dealing with eating disorders and body image concerns.<sup>19</sup> Participants were asked to indicate the importance of certain programs to their student body and out of 137 programs surveyed 64.3% indicated that awareness programs sponsored and conducted by Greek Council were extremely or very important.<sup>19</sup> Delta Delta Delta Reflections: Body Image Program, developed by Dr. Carolyn Becker is the first evidence-based peer-led body image education and eating disorder prevention program that has been shown effective and is also the first program designed for and in collaboration with a sorority. The goals of this program are to improve body image issues, encourage healthy confrontation, and develop

communication skills.<sup>24</sup> Engaging female students early on in the development of unhealthy eating patterns may reduce the likelihood of developing severe problems in the future.<sup>25</sup> Through identifying those at risk for eating disorders and disordered eating behavior by measuring body objectification and social pressure the results of this research could potentially charge actions for eating disorder prevention and treatment programs on college campuses geared specifically towards sorority members.

### Research Questions

The research questions investigated in this study included:

1. Is the length of time spent as a member of a sorority related to heightened:
  - a) Body surveillance
  - b) Body shame
  - c) Appearance control beliefs
2. Is the length of time spent living in a sorority house related to heightened:
  - a) Body surveillance
  - b) Body shame
  - c) Appearance control beliefs
3. Are social pressure scores related to:
  - a) Amount of time spent as a sorority member
  - b) Amount of time spent living in a sorority house
  - c) Body surveillance
  - d) Body shame

### Hypotheses

1. The number of months women have been a member of a sorority will be positively correlated with higher levels of:
  - a) Body surveillance
  - b) Body shame
  - c) Appearance control beliefs
2. The number of months women have lived in a sorority house will be positively correlated with higher levels of:
  - a) Body surveillance
  - b) Body shame
  - c) Appearance control beliefs
3. Higher social pressure scores will be positively correlated with the:
  - a) Amount of time spent as a sorority member
  - b) Amount of time spent living in a sorority house
  - c) Body surveillance
  - d) Body shame
  - e) Appearance control belief

## Null Hypotheses

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1. There is no difference between length of time spent as a sorority member and:
  - a) Body surveillance
  - b) Body shame
  - c) Appearance control beliefs
  
2. There is no difference between length of time spent living in a sorority house and:
  - a) Body surveillance
  - b) Body shame
  - c) Appearance control beliefs
  
3. There is no difference between social pressure scores and:
  - a) Amount of time spent as a sorority member
  - b) Amount of time spent living in a sorority house
  - c) Body surveillance
  - d) Body shame
  - e) Appearance control belief

## Variables

The variables used to test these hypotheses:

- a. Objectified Body Consciousness Survey subscale (OBCS) scores
  - i. Body surveillance subscale score
  - ii. Body shame subscale score



- iii. Appearance control belief subscale score
- b. Pressures from Peers subscale scores of the Sociocultural Attitudes Towards Appearance Questionnaire-4
- c. Number of month as a sorority member
- d. Number of months spent living in a sorority house

The data used to measure each variable:

- a. OBCS: Higher scores indicate a higher prevalence of body surveillance, body shame, and appearance control beliefs (there is currently no “cut-off point” for a high or low score)
- b. Pressures from Peers Subscale: Higher scores indicate a higher prevalence of pressure from sorority sisters
- c. Number of months as a sorority member will be derived from the demographic survey
- d. Number of months spent living in a sorority house will be derived from the demographic survey

## CHAPTER 2

### METHODOLOGY

This study was a non-experimental, correlational, cross-sectional study using a convenience non-random sample. Prior to conducting the research, an Application for Institutional Review of Research Involving Human Subjects was submitted and approved from the Northern Illinois University Institutional Review Board (IRB) to obtain permission to use human subjects in the study (Appendix B). All participants for this study consisted of sorority women at a Midwestern University. Inclusion criteria for this study required participants to be female, a member of one of the seven National Panhellenic Conference Sorority Chapters at said university, and to be 18 years of age or older. All 446 members of the seven sororities were invited to participate in this study. Using the formula for determining sample size from the Research Division of the National Education Association ideal sample size that is representative of a population of 440 individuals is 205 participants<sup>26</sup>, which was the goal for this study.

#### Instruments

Three different instruments were used in this study to measure body objectification, social pressure, sorority membership/living arrangements and other demographic information. The three instruments are described below.

The Objectified Body Consciousness Scale (OBCS) (Appendix C) was designed and developed by Nita Mary McKinley in 1996 based off of feminist theory about the social construction of the female body.<sup>18</sup> As previously mentioned, the scale consists of three subscales including body surveillance, body shame, and appearance control beliefs.<sup>18</sup> Body surveillance measures how frequently an individual monitors her appearance and if she thinks in terms of how her body looks, or how it feels.<sup>18</sup> Body shame measures the amount of shame an individual feels when her body does not conform to cultural expectations for her body.<sup>18</sup> Appearance control beliefs measure if an individual believes she can control her weight and appearance if she tries hard enough, or if she believes they are controlled by other factors like heredity.<sup>18</sup>

In the development and validation of the OBCS, all three subscales were found to have moderate to high reliability with internal consistency in three different studies ( $\alpha=0.89, 0.79, 0.79$  for body surveillance,  $\alpha=0.75, 0.84, 0.79$  for body shame, and  $\alpha=0.72, 0.68, 0.73$  for appearance control beliefs; studies one, two, and three respectively).<sup>18</sup> These findings were replicated with internal consistency for body surveillance ( $\alpha=0.92$ ) and body shame ( $\alpha=0.89$ ).<sup>9</sup> Strong positive correlations were also found between body surveillance and body shame ( $0.66, p<.001$ ), moderate positive correlations between body surveillance and appearance control beliefs ( $0.30, p<.01$ ), and small positive correlations between body shame and appearance control beliefs ( $0.23, p<.05$ ).<sup>18</sup>

The body surveillance subscale was also shown to be positively correlated with the appearance orientation scale of the Multidimensional Body-Self Relations Questionnaire ( $r(79)=0.64, p<.001$ ) and with the public body consciousness scale of the Body Consciousness Questionnaire ( $r(79)=0.46, p<.001$ ).<sup>18</sup> Strong positive correlations were also found between the fear of fat subscale of the Acceptance and Action Questionnaire (AAQ) with body surveillance ( $r(80)=0.51, <.001$ ) and body shame ( $r(80)=0.71, <.001$ ).<sup>18</sup> Finally, correlations between the OBCS and the Eating Attitudes Test-26 (EAT-26) were measured and it was found that the total EAT-26 score was positively correlated to all three OBCS subscales; body surveillance ( $r(81)=0.48, p<.001$ ), body shame ( $r(81)=0.61, p<.001$ ), and appearance control beliefs ( $r(81)=0.31, p<.01$ ).<sup>18</sup>

The scale consists of 24 items (eight items per subscale) using a seven point likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) with a midpoint of neither agree or disagree.<sup>18</sup> A total of three separate scores are received for the entire scale, one for each subscale. After reversing the appropriate items the scores selected are added up, excluding the NA option and then divided by the total number of items answered.<sup>18</sup> If the participant answers less than six questions for a scale their score on that scale is excluded. The scores for each subscale range from 0-7 with higher scores indicating greater levels of body surveillance, body shame, and appearance control beliefs, with no “cut-off” point for a high or low score.<sup>18</sup>

The social pressure measure (Appendix D) comes from the SATAQ-4, which was developed by Dr. Kevin J Thompson in 2011.<sup>17</sup> The original SATAQ was developed by Heinberg, Thompson, and Stormer<sup>27</sup> and has since been revised multiple times in order to update the measurement by including a focus on athleticism for women and considering media influences like pressure.<sup>28</sup> The SATAQ-3 is the most widely used and validated measure of appearance internalization and has since been updated to the SATAQ-4 to show three different domains of sociocultural pressures including pressure from family, peers, and the media.<sup>17</sup>

The SATAQ-4 consists of 22 items assessing internalization and perceived sociocultural appearance-related pressures. Reliability was found to be strong for each pressure subscale, pressure from family ( $\alpha=0.85-0.90$ ), pressure from peers ( $\alpha=0.88-0.90$ ), and pressure from the media ( $\alpha=0.94-0.96$ ).<sup>17</sup> The current study only used the pressure from peers subscale (four questions) from the SATAQ-4 and adapted the wording to solely consider pressure from sorority sisters. The questionnaire uses a five-point likert scale ranging from 1 (definitely disagree) to 5 (definitely agree) with a midpoint of 3 (neither agree nor disagree). Total scores are added up and averaged to get a score for the social pressure subscale. Scores range from 1-5 with higher scores indicating more social pressure from sorority sisters.<sup>17</sup>

An eight-item demographic survey (Appendix E) was designed to gather pertinent demographic information for each participant including sex, age, race, year in school, and undergraduate major. There were also three additional questions related solely to sorority membership. Question six asked if the participant is currently a member of one of the seven National Panhellenic Conference Sorority Chapters and if they responded yes they moved on to questions seven and eight. Question seven inquired about the number of months the participant had spent as a member of the sorority and question eight inquired about the number of months they had lived in a sorority house, if any. These questions made it possible to assess in months how long an individual had been a member of her sorority and how many months (if any) she had lived in the sorority house.

#### Data Collection

After IRB approval was granted, a “Data Sharing Request Form” was filed to the Division of Student Affairs and Enrollment Management” to gain email access to all NIU members of the seven National Panhellenic Council Sorority Chapters. Once IRB approval was granted the consent agreement (Appendix F), OBCS, social pressure, and demographics surveys were formatted into an online survey using the survey management tool SurveyMonkey.com.

The survey was pilot tested to ensure readability and functionality throughout the survey. A total of 11 graduate students at NIU completed the pilot test and only minor formatting changes were made to the survey. Following the pilot test, an initial email was sent to the president of each of the seven National Panhellenic Conference Sorority Chapters requesting an invitation to speak at their next chapter meeting. Five of the seven chapter presidents agreed to have the researcher speak at an upcoming meeting to invite all sorority members to participate in the research study, while two declined participation in the current study.

During each meeting, an overview of the research was given and all members were assured their responses would be confidential. They were invited to complete the online survey once it was emailed to them and if they completed it they would be eligible to enter into a drawing for a chance to win one of two \$20.00 Target gift cards. After all five sororities had been personally invited to participate in the research an email was sent to each member with a URL link to the survey provided in the email (Appendix G). Three reminder emails (Appendix H) were sent to all potential participants after the third and seventh day of the study and one day before the study closed. The survey was available for a total of fourteen days

An incentive prize of two \$20.00 Target gift cards was awarded to two randomly selected participants who fully completed the surveys. In order to enter the drawing, participants were asked to send an email to the author with the words “Target gift card”. Once the study was closed, all participants who chose to enter the drawing were assigned a number and two numbers were randomly generated online to designate the two winners.

Age, ethnicity, year in school, undergraduate major, and sorority member/house information were all self-reported in the demographics survey. Participants could choose all ethnicity groups that applied to them, so some participants had multiple responses. For undergraduate major, participants were also instructed to choose all majors that applied to them and for the ease of data analysis each major was classified into one of six academic colleges (Business, Education, Engineering, Health and Human Sciences, Art/Sciences, Performing Arts), other, and undecided. Finally, participants were instructed to type in how many months they had been a member of their sorority and how many months (if any) they had lived in the sorority house.

Statistical tests were executed through the Statistical Package for the Social Sciences (SPSS) 21 software to determine descriptive and inferential statistics. Descriptive statistics included frequencies, percentages, means, standard deviations, and range; while inferential statistics included Pearson Correlations and Internal Consistency. A p value  $<0.05$  was used for all data analysis to identify significance, which allows for the prevention of Type 1 and Type 2 errors.

Descriptive statistics were used on all data including age, ethnicity, year in school, academic major, sorority membership, sorority living arrangements, OBCS scores, and pressure scores. Pearson correlations were used in three ways to a) test the relationship between length of time as a sorority member and body surveillance, body shame, and appearance control beliefs, b) test the relationship between length of time living in the sorority



house and body surveillance, body shame, and appearance control beliefs, and c) test the 17  
relationship between social pressure and amount of time spent as sorority member, amount of  
time spent living in a sorority house, body surveillance, body shame, and appearance control  
beliefs. Additionally, internal consistency was used to test the reliability of the social  
pressure subscale as it was used separate from the SATAQ-4 and because the wording was  
slightly altered. Internal consistency was also run for each subscale of the OBCS using  
Cronbach's Alpha.

## CHAPTER 3

### RESULTS

The following section will address the results of this non-experimental, correlational, cross-sectional study on the relationship of sorority membership with body objectification and social pressures. The instruments used to assess this study include the demographics survey, the Objectified Body Consciousness Scale (OBCS), and a measure of social pressure from the Sociocultural Attitudes Towards Appearance Questionnaire-4 (SATAQ-4). This study used a convenience non-random sample with inclusion criteria requiring participants to be female, a member of one of the seven National Panhellenic Conference Sorority Chapters at NIU, and to be 18 years of age or older. Each of the seven sororities were invited to participate in the study, with two declining participation. A total of 133 participants attempted the online surveys, but 33 participants did not fully complete every survey and therefore had to be excluded from data analysis.

#### Description of Participants

Participant's demographic information can be found in Table 1. All 100 participants were female as that was one of the inclusion criteria required to participate. Age self-report distribution ranged from 18-24 years ( $22.61 \pm 1.188$ ). Participants were instructed to choose all ethnicity groups they identified with on the demographics survey and 93% of the sample

**Table 1: Demographic Breakdown of Participants**

<b>Demographic Characteristic</b>	<b>N</b>	<b>%</b>	<b>Mean ± SD</b>	<b>Range</b>
<b>Age (n=100)</b>			22.61± 1.19	18-24
18	2	2		
19	15	15		
20	33	33		
21	26	26		
22	19	19		
23	4	4		
24	1	1		
<b>Ethnicity (n=100)*</b>			n/a	n/a
American Indian/Alaska Native	2	2		
Hispanic/Latino	6	6		
Asian	3	3		
White (not Hispanic)	93	93		
Black/African American (not Hispanic)	2	2		
Native Hawaiian	0	0		
Mixed Heritage	4	4		
<b>Year in School (n=100)</b>			n/a	n/a
Freshman	4	4		
Sophomore	34	34		
Junior	31	31		
Senior	26	26		
Other	5	5		
<b>Academic College (n=100)*</b>			n/a	n/a
Business	17	17		
Education	20	20		
Engineering	2	2		
Health and Human Sciences	34	34		
Art/Sciences	25	25		
Performing Arts	2	2		
Other	6	6		
Undecided	1	1		
*Participants were allowed to choose more than one response				

self-reported their ethnicity as White (not Hispanic). The participant's distribution of year <sup>20</sup> in school was: 4% freshman, 34% sophomores, 31% juniors, 26% seniors, and 5% choosing other for their year in school. Academic major was divided into the different colleges at the university and participants were instructed to choose all academic majors that applied to them with the majority (34%) self-reporting Health and Human Sciences.

Participant's also self-reported the amount of time (months) they had been a member of their sorority, which ranged from 5-48 months ( $25.8 \pm 10.50$ ) as well as the amount of time (months) they had lived in their sorority house (if any), which ranged from 0-36 months ( $12.73 \pm 7.53$ ).

### OBCS Scores

A breakdown of scores from the OBCS can be found in Table 2. The scores for each subscale range from 0-7 with higher scores indicating greater levels of body surveillance, body shame, and appearance control beliefs, with no "cut-off" point for a high or low score (McKinley, 1996). Higher body surveillance scores indicate the participant frequently watches her weight and views her body in terms of its appearance while lower scores indicate the participant seldom watches her appearance and thinks of her body in terms of how it feels. Higher body shame scores represent an individual who feels like she is a bad person if she does not fulfill cultural expectations towards her body, while lower scores indicate that the individual feels okay if she does not fulfill cultural expectations for her body. Finally, higher appearance control belief scores occur when an individual believes she can control her weight and appearance with enough effort, which lower scores occur when an individual believes

factors like weight and appearance are controlled by heredity.<sup>18</sup> Additionally, internal consistency was computed for each subscale within the OBCS and the Cronbach's Alpha for each subscale was 0.77, 0.82, and 0.71 for body surveillance, body shame, and appearance control beliefs respectively, indicating good internal consistency for the subscales.

**Table 2: OBCS Scores**

<b>Subscale</b>	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Surveillance</b>	100	1.38	6.75	4.52	1.07
<b>Shame</b>	100	0.88	6.38	3.29	1.23
<b>Control</b>	100	2.50	7.00	5.02	0.96

#### Social Pressure Scores

A breakdown of scores from the social pressures subscale from the SATAQ-4 can be found in Table 3. Social Pressure scores range from 1-5 with higher scores indicating greater levels of social pressure from sorority sisters.

**Table 3: Social Pressure Scores**

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Pressure</b>	100	1	4.75	2.17	0.97

Internal consistency for the social pressure measure was calculated because it is a subscale of the SATAQ-4 and only the subscale was used in this study. The Cronbach's

Alpha for this 4-item subscale was found to be 0.85, which indicates good internal consistency. Reliability analysis for the social pressure scale can be found in Table 4.

**Table 4: Social Pressure Reliability**

	<b>Scale Mean if Item Deleted</b>	<b>Scale Variance if Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Squared Multiple Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
<b>Q1</b>	6.37	10.62	0.49	0.25	0.89
<b>Q2</b>	6.63	8.34	0.74	0.64	0.79
<b>Q3</b>	6.34	8.13	0.75	0.57	0.79
<b>Q4</b>	6.76	8.63	0.81	0.70	0.76

### Membership Length

Pearson correlation coefficients were used to see if the length of time spent as a sorority member was correlated with the three subscales of the OBCS; body surveillance, body shame, and appearance control beliefs. The correlation coefficients are listed in Table 5.

**Table 5: Membership Length and OBCS Correlations**

	<b>Member Length</b>
<b>Surveillance</b>	-0.21*
<b>Shame</b>	-0.20
<b>Control</b>	0.07
*Denotes significance at the 0.05 level	

This study had three null hypotheses, which were all analyzed using Pearson correlations in SPSS 12. Pearson correlation coefficients were calculated between the length

of time spent as a sorority member and body surveillance,  $r = -0.21$ ,  $n = 100$ ,  $p < 0.05$ , two tails, body shame,  $r = -0.20$ ,  $n = 100$ , and appearance control beliefs,  $r = 0.07$ ,  $n = 100$ . The first null hypothesis: There is no difference between length of time spent as a sorority member and a) body surveillance, b) body shame, and c) appearance control beliefs can be partially rejected due to body surveillance being significantly negatively correlated with length of time spent as a sorority member. There is a difference between body surveillance and length of time spent as a sorority member.

### House Length

Pearson correlations were also used to identify if the length of time spent living in a sorority house was correlated with body surveillance, body shame, and appearance control beliefs. The results of this test are listed in Table 6.

**Table 6: House Length and OBCS Correlations**

	<b>House Length</b>
<b>Surveillance</b>	-0.24*
<b>Shame</b>	-0.26*
<b>Control</b>	0.03
*Denotes significance at the 0.05 level	

Pearson correlation coefficients were also calculated between the length of time spent living in a sorority house and body surveillance,  $r = -0.24$ ,  $n = 100$ ,  $p < 0.05$ , two tails, body shame,  $r = -0.26$ ,  $n = 100$ ,  $p < 0.05$ , two tails, and appearance control beliefs,  $r = 0.03$ ,  $n = 100$ .

The second null hypothesis: There is no difference between length of time spent living in a <sup>24</sup> sorority house and a) body surveillance, b) body shame, and c) appearance control beliefs can be partially rejected due to body surveillance and body shame being significantly negatively correlated with the length of time spent living in a sorority house. There is a difference between body surveillance and house length as well as between body shame and house length.

### Social Pressure

Pearson correlations were additionally used to test the relationship between social pressure and membership length, length in sorority house, body surveillance, body shame, and appearance control beliefs. The results of this test are listed in Table 7.

**Table 7: Social Pressure Correlations**

	<b>Social Pressure</b>
<b>Member Length</b>	-0.15
<b>Length in House</b>	-0.20*
<b>Surveillance</b>	0.46*
<b>Shame</b>	0.49*
<b>Control</b>	-0.13
*Denotes significance at the 0.05 level	

Pearson correlation coefficients were calculated between social pressure and membership length,  $r = -0.15$ ,  $n = 100$ , house length,  $r = -0.20$ ,  $n = 100$ ,  $p < 0.05$ , two tails, body surveillance,  $r = -0.46$ ,  $n = 100$ ,  $p < 0.05$ , two tails, body shame,  $r = 0.49$ ,  $n = 100$ ,  $p < 0.05$ , two tails, and appearance control beliefs,



$r = -0.13$ ,  $n = 100$ ,  $p < 0.05$ , two tails. The third null hypothesis: There is no difference between social pressure scores and a) amount of time as a sorority member b) time spent living in the sorority house c) body surveillance d) body shame e) appearance control beliefs can be partially rejected due to social pressure being significantly negatively correlated with length of time in sorority house and significantly positively correlated with body surveillance and body shame. There is a difference between social pressure and length of time spent as a sorority member, social pressure and body surveillance, and social pressure and body shame.

## CHAPTER 4

### IMPLICATIONS

#### Discussion

The first null hypothesis: There is no difference between the length of time spent as a sorority member and a) body surveillance, b) body shame, and c) appearance control beliefs can be partially rejected. It was found that body surveillance was significantly negatively correlated with length of time spent as a sorority member. Although the first hypothesis: The number of months women have been a member of a sorority will be positively correlated with a) body surveillance b) body shame and c) appearance control beliefs cannot be supported, it can be concluded that there is a relationship between body surveillance and sorority membership length because women who had been a member of a sorority for a longer period of time experienced less body surveillance.

The second null hypothesis: There is no difference between length of time spent living in a sorority house and a) body surveillance, b) body shame, and c) appearance control beliefs can also be partially rejected. In this study the length of time women spent living in a sorority house was significantly negatively correlated with body surveillance and body shame. This shows that those women who had lived in the house longer had lower levels of body surveillance and body shame than women who had not lived in the house as long. The second hypothesis: The number of months women have lived in a sorority house will be positively

correlated with higher levels of a) body surveillance b) body shame and c) appearance control beliefs is also not supported in this study, although there is a relationship between the length of time spent as a sorority member and body surveillance and body shame.

These results from the first two hypotheses suggest that being a sorority member and living in the sorority house may act as a protective effect for women and some components of body objectification. The idea that sororities may act as a protective effect for young women needs to be examined further to confirm, but has the potential to change the way sororities are often viewed. As previously mentioned, sorority women may be considered at a higher risk for developing eating disorders or related issues, which may in fact not be the case. These results are supported by previous research suggesting that sororities may have the potential to serve as a supportive environment to its members, especially towards developing positive body image.<sup>13,16,29</sup> Ultimately, the relationship between sorority membership requires more investigation to better understand the connections and implications.

One explanation for why some of the OBCS subscales were not related to member or house length may be that the amount of time an individual spends as a sorority member or in a sorority house may not be related to higher levels of body objectification because the individual already has higher levels of body objectification to begin with. This explanation has been examined and it has been suggested that women who intend to join a sorority share similar characteristics to those who are already members of a sorority, specifically with disordered eating attitudes.<sup>9</sup> This suggests that the type of person drawn to joining a sorority is different than the type of person who is not. Sororities may appeal to women who were already high in drive for thinness and body dissatisfaction,<sup>9</sup> yet it has also been concluded that

women who join sororities are similar in baseline levels of disordered eating with those who chose to not join a sorority.<sup>8</sup> This discrepancy identifies a need for future research to focusing on preventing risk factors for developing eating disorders like drive for thinness and body dissatisfaction in high-risk populations like those intending on joining or those who are already a member of a sorority.

In order to look further into this idea that certain women may be drawn to joining a sorority the mean scores from the OBCS in this study were compared to mean scores from OBCS in previous research. This study did not use the OBCS on non-sorority women, which makes it impossible to test the idea that women who intend to join and are already members of a sorority have higher levels of body objectification than non-sorority women. Instead, connections may be drawn from comparing the sorority women's OBCS scores in this study to previous research that also used the OBCS with sorority and non-sorority women.

In comparison to five other studies<sup>9,18,29,30,31</sup> the current sample of sorority women on average scored higher than three out of the five studies using a non-sorority sample in body surveillance and body shame<sup>9,18,29</sup>. The two studies that scored higher than the present study used a sample of undergraduate women and therefore may have unknowingly included sorority women in their sample.<sup>30,31</sup> In comparison to the studies who specifically used a sample not containing sorority women<sup>9,29</sup> the current study means were higher, indicating that sorority women may naturally have higher levels of body surveillance and body shame.

Two of the comparison studies did not use the appearance control belief subscale from the OBCS<sup>9,29</sup> but the current study appearance control belief average score means were higher than all three studies who used an undergraduate sample, indicating that sorority women may have higher levels of appearance control belief scores than undergraduate women

in general.<sup>18,30,31</sup> These comparisons are important to shed light on the current research

because they indicate that although two of the study hypotheses were not proven, the women in the sororities may have higher levels of body objectification than non-sorority women.

The third null hypothesis: There is no difference between social pressure scores and a) amount of time as a sorority member b) time spent living in the sorority house c) body surveillance d) body shame e) appearance control beliefs can be partially rejected. It was found that length of time spent living in the sorority house, body surveillance and body shame were significantly correlated with social pressure, just in different ways. The longer a sorority member had spent living in the sorority house, the lower her levels of social pressure were. Yet the higher her social pressure levels were, the higher her body surveillance and body shame were. These findings are supported by previous research also finding that stronger social pressure was significantly related to higher levels of body surveillance and body shame.<sup>9</sup> A potential reason social pressure is related to body surveillance and body shame is that individuals in a sorority may feel pressured by others to maintain a certain appearance and therefore may develop dangerous behaviors in order to obtain that appearance.<sup>12</sup>

These findings bring a new component to the research scene, which suggest that living in the sorority house and or being a sorority member may act as a protective effect for sorority women feeling social pressure and experiencing body objectification. Essentially, the women who had spent more time in the house living with other sorority sisters feel less social pressure from them, and experienced less body objectification. This may propose that living in the sorority house allows the women to form stronger relationships with each other and ultimately feel less social pressure towards their appearance. These findings align with previous research which identified that sororities have the power to significantly influence the

norms and ideals of their members. This gives sororities the opportunity to move away from a focus on appearance and focus on setting norms that encourage positive approaches to body image.<sup>16,29</sup> Sororities are often sincerely concerned about the health of their members, especially related to disordered eating and historically, sorority members are very receptive to programs designed to combat disordered eating.<sup>16</sup>

Additionally, those women who felt more social pressure from their sisters also had higher levels of body surveillance and body shame. Repercussions from these results could ultimately lead to more sorority women developing subthreshold and full blown eating disorders, which can be explained because eating disorders are often centered on body objectification, body image dissatisfaction, and weight preoccupation.<sup>7</sup> Body shame and body surveillance both measure how an individual views and feels about her own body, and higher levels may indicate a greater risk for developing an eating disorder. The high amounts of social pressure placed on appearance in the sorority environment make it all the more likely an individual will have increased levels of body surveillance and body shame because often times maintaining a certain appearance or weight is reinforced by group norms.<sup>7,8</sup> Resulting from these group norms, some sorority members may feel pressured by sorority sisters into developing hazardous behaviors through modeling and peer pressure, and these behaviors may lead an individual into developing an eating disorder or subthreshold eating disorder.<sup>12</sup> It is already known that bulimia tends to run in social groups, and often times the onset of the disorder is associated with entrance into the group, suggesting that social pressure may be involved in the development and formation of the eating disorder.<sup>32</sup> It can be concluded that in this study being a member of a sorority and living in the sorority house acted as a protective factor for some women in feeling less social pressure, less body surveillance, and

less body shame from their sorority sisters, while women with higher levels of social pressure were more likely to have higher levels of body surveillance and body shame.

### Limitations

One of the main limitations of this study was sample size. Ideal sample size for a population of 440 is about 205 participants (46.59% response rate)<sup>26</sup> and the response rate for this study was 24.66%, yet after excluding those participants who had to be excluded from data collection due to incomplete surveys, response rate was 22.57%. Although online surveys are considered easier to use they are often associated with lower response rates than surveys administered on paper, over the phone, or by mail.<sup>33,34</sup> The adequacy of response rates in online and paper surveys were assessed and it was found that the average response rate for surveys administered on paper was about 56% in comparison to the average response rate to online surveys which was 33%.<sup>34</sup>

Possible explanations exist for explaining a lower than average response rate for the present study. First, two of the seven sororities opted to not participate in the research from the beginning. Secondly, the timing of data collection may have not been ideal as data was collected during the end of spring semester and many participants may have been busy finishing up classes and studying for finals. Additionally, some students may not check their NIU email accounts regularly and may have missed the email containing the surveys entirely. Finally, not all sorority members were present when the researcher attended a chapter meeting to explain the nature of the research. Those who were not present may have ignored the email due to not knowing what it entailed.

There are also limitations in the overall study design. This research is cross-sectional so data collection only occurred at one point in time. Instead, if data collection had taken place over a longer period of time it may have been more accurate in assessing the changes in sorority member's body objectification and social pressure over the course of membership. This may have provided better insight into how the length of time spent as a sorority member and the length of time spent living in the house are related to body objectification and social pressures. Due to lack of time and resources this study design was not possible for the present study, but should be considered in future research. Additionally, this research may have been better supported and more diverse if it included samples from other universities.

Finally, there are always limitations in research when it relies solely on participants self-reporting data because a common issue in research involving self-report surveys is social desirability, which can often lead to results not representative of the population being studied.<sup>35,36</sup> A significant portion of research conducted on eating behaviors, beliefs, and dieting is based on self-report methods, which means the results rely on participants being honest when completing surveys.<sup>36</sup> This can be difficult for researchers to rely on because respondents may be more likely to provide socially appropriate responses based on the idea that certain responses are "ideally good" and some are "ideally bad".<sup>35</sup> Some research has indicated that social desirability can result in a response bias especially when researching eating and weight-related attitudes and behaviors.<sup>36</sup> In order to identify if a response bias is present in certain results a researcher can include a scale that has been specifically designed to identify a bias in respondents.<sup>35</sup> In the current study a response bias may be present because individuals may have not wanted to show the sorority system in a negative light and purposely



responded to the questions in a way they deemed socially desirable, instead of how they truly felt. Additionally, the National Eating Disorder Association identifies that for various reasons most eating disorders and eating disordered behaviors are not likely to be self-reported.<sup>19</sup>

### Implications for Future Research

This research was one of the first studies that looked into the role of sorority membership, specifically length of time as a member and length of time living in the sorority house, with body objectification and social pressure from sorority sisters. It was attempted to compare the current data regarding the demographic breakdown of the sorority participants to national data in order to determine if the sample was representative of the sorority population, yet to the knowledge of the researcher comparison data does not exist. The sorority population has been studied in the past in relation to disordered eating behaviors, but still requires more research in order to better understand the population.<sup>8,13,16</sup>

This study along with previous research identified a need for further knowledge on the sorority population, specifically if an individual drawn to joining a sorority is predisposed to developing disordered eating behaviors and to identify if being a member of a sorority and living in a sorority house serve as a protective effect against body objectification and social pressure. This would assist in identifying if prevention efforts should be focused in the sorority systems or on specific risk factors with the entire college population. The goal of future research should be in preventing eating disorders and eating disordered behaviors from forming.

Previous research shows that through engaging students early on in the development<sup>34</sup> of unhealthy eating patterns the likelihood of developing more severe problems in the future may reduce.<sup>25</sup> It should be noted that sororities may have the potential of serving as a positive and supportive environment for female students to work together and prevent eating disorders.<sup>13</sup> Additionally, an advantage to working with the sorority systems is that on many campuses the Greek system holds mandatory programs for its members, which may ensure that most of the individuals within the system are reached with the message of the program. Mandated education may be a way to ensure that sorority members receive accurate information on forming healthy eating attitudes and behaviors to combat negative body image and body objectification within a safe and supportive environment.<sup>16</sup> Finally, through identifying individuals at risk for developing eating disorders or disordered eating behaviors, future research along with this study has the potential to influence actions for eating disorder prevention and treatment programs on college campuses geared specifically towards sorority members and or those with risk factors.

Research has shown that by having peer facilitators of a prevention program within a sorority, participants showed significant improvements in thin-idealization, body dissatisfaction, and dieting<sup>13</sup>. One reason prevention programs may be effective within the sorority system is partly because sororities' values are centered around sisterhood, service, and leadership, which make them great partners in combating disordered eating.<sup>13</sup> Dr. Becker is one of the co-developers of the Delta Delta Delta Reflections: Body Image Program. As previously discussed, the overarching goal of this program is to improve body image issues and encourage a healthy confrontation and develop communication skills.<sup>24</sup> Through

developing communication skills within the sorority and having peers lead the prevention program hopefully social pressures will decrease within the sorority systems.

Dr. Eric Stice, a pioneer in research on primary prevention of eating disorders has conducted multiple studies on the effectiveness of dissonance based prevention programs, which would be very appropriate within the sorority systems.<sup>20,21,37,38</sup> The cognitive dissonance theory was developed by Leon Festinger, an American social psychologist in 1959.<sup>39</sup> The theory centers around the idea that as an individual knows certain things that are not psychologically consistent with one another, they will try to make them more consistent by distorting their perceptions and the information in the world around them.<sup>40</sup> When people are encouraged to act in a way that is inconsistent with their original attitudes and beliefs, it creates cognitive dissonance, which ultimately leads people to shift their attitudes in order to reduce the inconsistency. Dissonance based interventions have been recently used to reduce risk factors for eating disorders.<sup>20,41</sup> It has been identified that participants who participate in dissonance based interventions show significantly greater decreases in thin-ideal internalization, body dissatisfaction, dieting, and negative affect.<sup>37,38</sup> The cognitive dissonance theory has been used within the sorority population and has shown positive results in efforts to prevent eating disorders.<sup>13</sup> Programs similar to these described may be beneficial to implement within the sorority systems to decrease the amount of social pressure and risk factors for developing eating disorders.

Although the results of the current research study were not completely conclusive it still sheds some light on the issue of body objectification and social pressure in sororities. There are still many questions needing to be answered including whether the sorority system acts to protect women from social pressure and body objectification, if it contributes to

developing and/or continuing eating disordered behavior, or if it is actually due to a certain 36  
type of person being drawn to joining a sorority. This is something that should be looked at  
together as it may not be one or the other, but rather a combination of ideas. In regards to  
social factors, the role of social pressure within the sororities needs to be studied more in  
order to understand how certain behaviors like body objectification are related to eating  
disorder development. This study identified that those who felt more social pressure from  
their sorority sisters had higher levels of body surveillance and body shame, which identifies a  
need to further examine this relationship. There is a call to action for further research to take  
place, especially research with improved study design that can properly identify if there is a  
relationship between length of time as a member and living in the house with eating  
disordered behaviors. A focus on forming positive relationships with sorority sisters through  
primary prevention programs to lessen the social pressure members may face, may produce  
lower levels of body surveillance and body shame.

## Conclusions

The purpose of this research was to increase the body of knowledge related to sorority  
women, social pressure, and body objectification. Furthermore, this study attempted to  
identify if the length of time spent as a sorority member and living arrangements of sorority  
women were related to social pressure and body objectification. To date, the body of research  
on the role of sorority membership, specifically the length of time spent as a member and  
spent living in the sorority house, with social pressure from sorority sisters and body  
objectification is lacking.

The current study showed that the longer women were members of a sorority the less body shame they experienced, the longer women had lived in a sorority house the less body surveillance, body shame, and social pressure they experienced, and that higher amounts of social pressure from sorority sisters was positively correlated with body surveillance and body shame. This research contributes to the lacking body of knowledge on the role of sorority membership with social pressure and body objectification. These results challenge future researchers to a) improve study design and further examine the role of membership length and living arrangements with disordered eating behaviors, b) focus on the individual who is drawn to joining a sorority and c) further examine the role of social pressures from sorority sisters. The overarching goal of future research should not be to point any fingers, but to obtain a more comprehensive understanding of eating disorders in this unique population and to ultimately identify what can be done to prevent them from forming.

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APPENDIX A  
REVIEW OF LITERATURE

## APPENDIX A

### REVIEW OF LITERATURE

The literature review will first focus on the prevalence of eating disorders in the general population, the college population, and then in the sorority population. Important theories related to eating disorders will be presented along with crucial risk factors to consider, length of time spent in a sorority, and the overall sorority environment.

#### Prevalence

##### Prevalence of Eating Disorders in the General Population

For every 10 individuals with an eating disorder nine are female.<sup>1</sup> Clinically relevant eating disorders are somewhat uncommon but they still represent a great concern because they are often associated with other psychopathology and are commonly undertreated.<sup>2</sup> According to a study that analyzed data from the National Comorbidity Survey Replication (NCS-R), which is a nationally representative survey of the US population that was administered to 9,282 adults over the age of 18 years old between the years of 2001-2003, the median onset age of eating disorders is 18-21 years old.<sup>2</sup> Although eating disorders are considered rare in the general population, they are fairly common among adolescent girls and young women.<sup>3</sup> Additionally, only a small percentage of people who meet the strict diagnostic criteria for eating disorders receive care, which indicates that the majority of individuals suffering from

an eating disorder lack sufficient treatment<sup>3</sup> and eating disorders not meeting the full diagnostic criteria are two to five times more common.<sup>4</sup>

Eating disorder cases that do not meet the full criteria for any of the disorders in the eating disorder diagnostic class are given the diagnosis of Other Specified Feeding or Eating Disorder (EDNOS), which is number 307.59 in the DSM-5.<sup>1</sup> LeGrange and colleagues analyzed the NCS-Ra, NCS-R and expanded upon previous research and found that EDNOS is the most common eating disorder in both adolescents and adults, representing 80.97% and 75.38% respectively.<sup>5</sup> Lifetime prevalence of EDNOS was 4.78% in adolescents and 4.64% in adults.<sup>5</sup> The relative distribution of eating disorder subtypes in female adults with AN, BN, EDNOS, BED, subthreshold AN, and subthreshold BED was found to be 11.16%, 17.19%, 71.65%, 35.95%, 27.82%, and 7.98% respectively. EDNOS is sometimes considered a catch-all diagnosis for cases that do not meet criteria for threshold eating disorders, there is a risk for these cases to be seen as less severe in comparison. However, significantly high numbers of adults with EDNOS additionally meet criteria for comorbid psychopathology like anxiety and mood disorders.<sup>5</sup>

#### Prevalence of Eating Disorders in the College Population

Eating disorders and subthreshold eating problems appear more often in the college population than in the general population.<sup>6</sup> According to the DSM-5, the development of AN, BN, or BED is common in adolescents and college-aged individuals.<sup>4</sup> The onset of such eating disorders is typically associated with stressful life events like the transition to college.<sup>4</sup> Prevalence estimates of eating disorders among college students range from 8%-17%.<sup>7</sup> The American College of Health Association's National College Health Assessment in spring

2013 found 1.4% of females and .6% of males reported a diagnosis of anorexia and 1.3% of females and .6% of males reported a diagnosis of bulimia.<sup>8</sup>

Eisenberg et. al. measured eating disorder symptoms among college students using the SCOFF screening instrument, a 5-item questionnaire designed to identify subjects likely to have an eating disorder and found positive screens for 13.5% of undergraduate females. A positive screen was also significantly associated with an increased likelihood of a positive screen for major depression, panic disorder, generalized anxiety disorder, and suicidal thoughts. It is important to understand the populations who are not receiving clinical care for an eating disorder because early detection and treatment of eating disorders significantly increases the chances of a full recovery.<sup>7</sup>

### Prevalence of Disordered Eating in College Sororities

In a prevalence study of eating disorders and eating disordered behaviors in sorority women it was found that sorority women did not report significantly more eating disorders or eating disordered behaviors than non-sorority women, but it was found that sorority women tended to score more pathologically on testing measures than non-sorority women.<sup>9</sup> Although these trends were not significant they still suggest that sorority women may have more eating disorders and eating disordered behaviors than college women in general.<sup>9</sup>

Sorority members may be more likely to have objectified body consciousness and be at an increased risk for developing an eating disorder because of their focus on appearance and the internalization of the thin ideal.<sup>10</sup> Some research has found that women who are very concerned with maintaining a social façade are more prone to developing eating disorders in

order to meet certain expectations, and sorority women seem to be at a risk given their social demands.<sup>9</sup> Body dissatisfaction and disordered eating may be more prevalent in certain social group if there is a shared value emphasizing a thin ideal and weight loss.<sup>11</sup> If these values and norms are deviated from, rejection may occur by the group. This could result in modeling by group members of behaviors and attitudes associated with disordered eating.<sup>11</sup> As a result of the social environment surrounding sororities, members may be pressured into developing hazardous behaviors through modeling and peer pressure.<sup>12</sup> These hazardous behaviors could ultimately lead to the development of an eating disorder or disordered eating.<sup>11</sup>

## Theory

### Objectification

Objectification theory, proposed by Frederickson and Roberts in 1997 as a framework to better understand the consequences of being female in a culture that sexually objectifies the female body.<sup>13</sup> This theory occurs when an individual's body parts or functions are separated from the person and reduced to the state of instruments or regarded as representing the entire person.<sup>13,14,15</sup> Women are acculturated to internalize an observer's perspective as a principal view of their physical self, which can lead to habitual body monitoring and increase a women's shame and anxiety related to her appearance and ultimately contribute to development of an eating disorder.<sup>1997</sup> Not all women respond to sexual objectification in the same way, and specific factors like ethnicity, class, sexuality, and age play a large role.<sup>13</sup> When objectified, women are treated as objects that exist only for the pleasure of others.

Psychologically, the most significant effect of objectification of women is that it encourages women to adopt a similar view of their body.<sup>13</sup> Eating disorders are the most obvious risk associated with the objectification theory because fundamental to this theory is the suggestion that self-objectification results in body shame and anxiety, which can lead to the development of eating disorders.<sup>13,15</sup>

### Sociocultural

The sociocultural emphasis on thinness in the United States is believed to play an integral role in the development and maintenance of eating disorders.<sup>11</sup> Bodies exist within social and cultural contexts and are therefore constructed through sociocultural practices<sup>13</sup>. Beauty standards for women in westernized societies like the United States place the emphasis on an unrealistically low body weight that is generally unattainable. The body sizes of Playboy centerfolds and Miss America contestants have been steadily decreasing over the past 20 years; and now more than ever, thin is in.<sup>16</sup> This sociocultural pressure to be thin leads to the internalization of the thin ideal, and because it is largely unattainable, body dissatisfaction occurs, which can in turn lead to dieting and negative affect.<sup>17</sup> Internalization of the idea that thinness leads to success is one of the major predisposing factors for developing an eating disorder. Attempts to reach this norm through dieting and exercising can disrupt the body's natural balance, which in turn can make weight reduction very challenging.<sup>16</sup> Also, objectification theory teaches women to accept and internalize an observers' view of themselves, which is found to be correlated with lack of internal awareness and body shame<sup>10</sup>. Comparing one's body to the cultural ideals and knowing that one's body will be subjected to comparisons by others is fundamental to the sociocultural theory.<sup>13</sup>

Crandall critiques this approach because social pressures affect almost all women in the middle class subcultures and therefore it can be difficult to determine who is at risk for developing an eating disorder. Although, thinness is the norm and there is a great fear of fat in our culture, not everyone is affected through dieting, bingeing, or negative body image.<sup>16</sup> Crandall poses the question of why do beauty norms for thinness destruct only a minority of the population. Although not everyone develops an eating disorder, it can be argued that everyone is affected from these thin ideals, whether they realize it or not.<sup>16</sup> In regards to sorority women, thinness is the ideal and by placing the factor within the sociocultural framework it is evident that social and cultural expectations may put an individual at a higher risk for developing an eating disorder.

### Social Contagion

Crandall proposed a new method for looking at eating disorders and he claims there is much evidence stating that bulimia tends to run in social groups and that the onset of this disorder follows the entrance into said group, which suggests that social pressures may somehow be involved. His study looking into the social contagion of binge eating was published in 1988 and has been cited and referenced by many other researchers looking into eating disorders in sororities.<sup>9,10,11,18,19,20</sup> He argues that social groups like sororities are at the center of the issue of symptom acquisition and that the symptoms spread from member to member.<sup>16</sup> In his study he hypothesized that groups made up entirely of women of the same age are most likely to transmit binge-eating symptoms of bulimia. Sororities are an ideal group to study in regards to social contagion because they have often been seen as breeding grounds for eating disorders.



In Crandall's study, two different sororities were measured during two different academic years and questionnaires were only given to women who resided in the sorority house. The girls were measured on a binge eating scale, social networks, and self esteem. The social networks were measured by having each participant list their ten best friends within the sorority house in order. The results of this study indicated that within one of the sorority houses, the highest level of popularity was associated with moderate bingers; with bingeing too much or too little being associated with a reduction in popularity. In the other sorority house, the more an individual binged the more popular she was. Also, the individual's bingeing was considerably comparable to that of her friends. After only six weeks of interaction in the fall, there was no indication that friends were more like each other than other sorority members. Yet, after seven months of interaction within the house, friends became more uniform. At both the group and friendship level, the women became more like their friends over time. Crandall argues this correlation directly indicates that social influence plays a role in women becoming more like their friends over time. He also concludes that a social psychological analysis is warranted for future explanation of eating disorders.<sup>16</sup>

In more recent literature studying eating disorders in sororities, there has been some critique of Crandall's study and conclusions. Alexander brings up a valid point when she states that Crandall did not address whether sorority members had a higher frequency of bingeing when they entered the sorority. Crandall showed that the frequency of bingeing increased in those who were friends with binge eaters and he credited social contagion with the increased prevalence of this behavior.<sup>16</sup> He also made a sweeping generalization from binge eating to bulimia, even though binge eating does not specifically mean that an individual has bulimia.<sup>9</sup> Overall, Crandall's study has been cited many times and used in

more recent research on what role sororities play with eating disorders. The information from this study provides new insight on this topic and sheds some light on certain behaviors within sororities and the role contagion may play.

### Multidimensional and Self-Perpetuating Model

In 1971, Nylander introduced a continuum theory of eating disorders when he surveyed a population of high school females in Sweden and found that many of the females perceived themselves as overweight.<sup>21</sup> In addition, Garner and Garfinkel addressed the socio-cultural determinants within anorexia nervosa as a multi-determined disorder by investigating the potential relationship between predisposing, precipitating, and perpetuating factors in the development of eating disorders.<sup>22</sup> Predisposing factors like familial, psychological, and sociocultural all set up an individual for developing an eating disorder, while precipitating factors like stressors in an individual's life (e.g. disordered thoughts and eating) advance the disorder. Finally, perpetuating factors strengthen the disorder like environmental and cognitive reinforcement contingencies.<sup>22</sup> Allison and Park discuss how joining a sorority can become such an integral part of one's identity, which can then affect socialization, leadership opportunities, and philanthropy.<sup>19</sup> This environment involves an increased focus on appearance and internalization of the thin ideal, which can act as a perpetuating factor in the development of an eating disorder because it becomes so imbedded into daily life.<sup>10</sup> Additionally, high levels of body objectification can put an individual at an increased risk for developing disordered eating behaviors, which can act as precipitating factors for eating disorders.<sup>23</sup>

### Femininity Theory of Eating Disorders

The femininity theory of eating disorders indicates that higher levels of femininity are associated with higher levels of eating disorder pathology.<sup>24</sup> The relationship between conformity to traditional gender roles and eating disorder development is a critical issue to consider in order to understand disordered eating.<sup>25</sup> This theory indicates that women who are at risk for an eating disorder endorse traditional feminine gender roles.<sup>24</sup> Some of these roles include an exaggerated need for social approval, dependence, and passivity.<sup>25</sup> From the beginning of femininity theory, many researchers have surveyed the relationship between the endorsement of traditional gender roles and eating disorder symptoms. The femininity theory of eating disorders suggests that high adherence to certain traditional gender roles has the potential to inform best practices in eating disorder prevention and treatment.<sup>25</sup> This provides insight into the college sorority population because it is very common for sorority women to place a high importance on physical appearance, a component of the femininity theory, which has been positively correlated with eating disorder symptoms.<sup>10,25</sup> Additionally, the OBCS was originally developed using feminist theory about the social construction of the female body.<sup>23</sup>

### Risk Factors for Eating Disorders

Jacobi et. al. applied risk factor terminology for eating disorders and proposed suggestions for a general taxonomy.<sup>26</sup> The goal of their research was to apply a more thorough terminology for eating disorder risk factors and to then place their findings within a broad theoretical context by proposing general taxonomic criteria for risk factor classification

for psychiatric disorders in general. Jacobi et. al identified potential risk factors for eating disorders as being under different categories including general and social factors, familial factors, developmental factors, adverse life effects, psychological and behavioral factors, and biological factors.<sup>26</sup> The next portion of this literature review will focus specifically on psychological and behavioral factors related to eating disorders and sorority women. 52

### Overconcern with Weight and Shape

Overconcern with weight and shape encompasses many different factors including drive for thinness, thin ideal internalization, and body dissatisfaction, which all are tied to body image.<sup>26</sup> Body image can be defined as a multidimensional concept referring to cognitive and affective views about one's body focusing on physical appearance.<sup>27</sup> It is a crucial component of an individual's identity and self-concept, manipulating feelings, thoughts, and behaviors. Throughout life, body image develops as a result of physical appearance, societal norms, and cultural ideals of beauty.<sup>28</sup> Recent research suggests that the media plays a significant role in developing societal norms of beauty, which are extremely unattainable.<sup>29</sup> This in turn can cause individuals to believe that this ideal should be considered the norm.<sup>29</sup> When there is inconsistency between one's current and ideal body image, body image dissatisfaction can occur, which can lead to the development of eating disorders.<sup>28</sup> About half of undergraduate women are dissatisfied with their bodies, and this dissatisfaction can start as early as age seven.<sup>30</sup>

Jurasico and colleagues looked into the moderators of the relationship between body image dissatisfaction and disordered eating in general. Negative affect and dieting can moderate the relationship between body dissatisfaction and disordered eating. Also, high

current levels of anxiety increase ones risk for developing eating disorder habits along with <sup>53</sup>  
an individual's tendencies to respond to stressful situations with anxiety, which can increase  
the likelihood of disordered eating.<sup>31</sup>

Drive for Thinness addresses concern with dieting, preoccupation with weight, and fear of weight gain.<sup>11</sup> Schulken and colleagues had sorority women select from a variety of silhouettes the one that best represented their current body size, the size they would like to be at, and the size women should be. They found that 62.1% of the women selected underweight figures when choosing the size women should be and 81% of the women selected a figure that was underweight for their ideal body size. This suggests that sorority women may have a greater fear of becoming fat, be more distressed with their bodies, more weight preoccupied and more concerned with dieting than women from other college populations.<sup>11</sup>

The Basow and colleague's study mentioned above also found that women who were currently in a sorority and those who were planning on joining a sorority in the future had greater perceived social pressures. In comparison, women who had no intentions of joining a sorority had no perceived social pressures.<sup>10</sup> This supports previous research indicating that sororities exert pressure on members to be thin, attractive, and social. In one of the first studies looking into eating disorders in sororities Crandall identified sorority membership as a powerful source of social influence because sorority members often have lives that revolve around the group.<sup>16</sup>

Overconcern with weight and shape is considered a risk factor for development of disordered eating behaviors and ultimately an eating disorder.<sup>10,11,23,26</sup> In a field study with a sample of 265 first year and second year women found that in comparison to non-sorority women, sorority women had significantly higher levels of disordered eating attitudes, which

were measured through the drive for thinness, bulimia, and body dissatisfaction subscales of the Eating Disorder Inventory-2.<sup>10</sup> Alexander and colleagues found that although women who are in a sorority may have higher levels of self-esteem, they may also be more susceptible to disordered eating.<sup>9</sup> Trends in their data show that women who are a part of sororities are more likely to be eating disordered than college women in general.<sup>16</sup> Crandall also supports the fact that sorority members have intense social pressures, which may contribute to patterns of disordered eating. In Crandall's research he found that over time sorority women's binge-eating habits became more like those of their fellow sorority members and by the end of the year a women's binge eating could potentially be predicted by her friendship network, which he describes as "social contagion".<sup>16</sup> This provides insight into the environment created within sororities and how that may lead to the development of eating disorders.

### Negative Affect and Substance Abuse

The most commonly diagnosed comorbid disorder in both anorexia nervosa and bulimia nervosa is major depression.<sup>32</sup> As previously mentioned, the sociocultural pressure to be thin can lead body dissatisfaction and ultimately to dieting and negative affect.<sup>17</sup> Dieting and negative affect in combination with other risk factors may serve as precipitating factors in the development of eating disorders.<sup>11</sup> Depression can moderate the relationship between body dissatisfaction and disordered eating and in this study when affective symptoms were more severe, so was eating pathology and body dissatisfaction.<sup>31</sup> In a randomly selected sample of 5,021 students from a large Midwestern university 2,822 students completed the

SCOFF screen, which indicated that among undergraduates the prevalence of a positive screen for eating disorder symptoms was 13.5% for women.<sup>7</sup> A positive eating disorder screen was significantly associated with a higher likelihood of a positive screen for major depression, panic disorder, generalized anxiety disorder, and suicidal thoughts.<sup>7</sup>

Garcia (2012) identified the existence of negative affect among females with eating disorder symptoms in a non-clinical sample of Spanish females (Garcia, 2012). The highest significant correlation was observed between eating disorder symptoms and depressive mood and socially prescribed perfectionism (Garcia, 2012). Similarly, Kitsantas, Gilligan, and Kamata (2003) identified that college students with eating disorders and those at risk of developing an eating disorder demonstrated higher levels of negative affect than students with no associated at-risk behaviors (Kitsantas, 2003).

Substance abuse is also a risk factor for developing eating disorders and in the study by Eisenberg mentioned above, a positive screen for eating disorders was also significantly associated with binge drinking, cigarette smoking, and marijuana use.<sup>7</sup> A study looking into health behavior and college students with a specific emphasis on Greek affiliation surveyed 1,595 undergraduate students and found that Greek members drank more alcoholic beverages on a typical day and also engaged in heavy drinking more frequently than non-Greek members. In this study Greek members also reported higher drug use than non-Greek members specifically marijuana, cocaine, amphetamines, ecstasy, and hallucinogens.<sup>12</sup> In a study assessing 480 college women at high risk for developing an eating disorder annually for four years found that binge drinking is extremely prevalent in women at a high risk for developing eating disorders, specifically with dieting and maladaptive coping patterns.<sup>35</sup>

Body Objectification

The objectification theory developed by Frederickson and Roberts states that women are trained to see their bodies as objects to be watched as an outsider.<sup>13</sup> As a result, body objectification has been linked to body shame, low body esteem, and may predict disordered eating behavior.<sup>10</sup> In sororities, the heightened focus on appearance and the internalization of the thin ideal may lead sorority women to have higher levels of body objectification, which puts them at risk for developing eating disorders. Basow and colleagues investigated the relationship between sorority membership and disordered eating behaviors through surveying levels of body objectification and social pressure in sorority women, those planning on joining a sorority, and nonsorority women. They found that sorority women had more risk factors for developing eating disorders that included higher levels of objectified body consciousness in comparison to non-sorority women. In this study, sorority women also had higher levels of body surveillance and body shame than the non-sorority women.<sup>10</sup>

The Objectified Body Consciousness Scale (OBCS) was developed based on feminist theory and parallels many components of the Objectification Theory developed by Frederickson and Roberts.<sup>13</sup> The purpose of the OBCS is to measure objectified body consciousness through three subscales each with eight items including body surveillance, body shame, and appearance control beliefs.<sup>23</sup> Body Surveillance involves women seeing themselves as others see them and is necessary to confirm that women submit to cultural body standards. Constant self-surveillance has many negative implications for women including feeling bad when comparing the self to the standard and trying to reduce any discrepancy as



well as making women more susceptible to influence from others, which may decrease capacity to focus on the outside world. Body Shame comes about because cultural standards for the feminine body are essentially impossible to achieve, and women who internalize the standards connect achievement with the standard and may feel shame when they do not mirror it. Appearance Control Beliefs are based on the assumption that women are responsible for how their bodies look and can with enough effort, control their appearance to match the cultural standard. Control beliefs can lead to disordered eating behaviors because women are taught that they can and should control every aspect of their appearance.<sup>23</sup>

### Social Pressure

One of the common themes research on sorority members focus on is social pressure. Research from Basow and colleagues indicates that sororities exert pressure on members to be thin, attractive, and social.<sup>10</sup> As mentioned above, a result of the social environment surrounding sororities is that members may be pressured into developing hazardous behaviors through modeling and peer pressure from sorority sisters, which could ultimately lead to the development of an eating disorder or disordered eating<sup>12</sup>. Crandall claims there is much evidence stating that bulimia tends to run in social groups and that the onset of this disorder follows the entrance into said group, which suggests that social pressures may somehow be involved. Sorority membership has great influence over the members because many of their lives revolve around the life of the group, which is where social pressures can come into play.<sup>16</sup>

Another common theme in the research on eating disorders and sororities is how the amount of time spent as a part of a sorority or in a sorority house affects individuals. Basow and colleagues examined whether the amount of time spent living in a sorority house was related to social pressure, body objectification, or disordered eating attitudes.<sup>10</sup> This study found that the length of time an individual lived in the sorority house (from 0-15 months) was not significantly correlated with perceived pressure from sorority sisters, yet it did correlate positively with bulimia and body dissatisfaction subscales measured in the study. The longer the women lived in the sorority house, the higher they scored on these subscales. Basow and colleagues identified that women who intended to join a sorority in the future were similar to those who were already members of a sorority in regards to disordered eating attitudes. This shows that the type of person drawn to sororities is different than the type of person who is not drawn to them. In their study it appeared that sororities appeal to women who are already high in drive for thinness and body dissatisfaction. They also mentioned that although sororities may attract a certain type of person, their attitudes and actual disordered eating behaviors may manifest the longer these women live in a sorority house with like-minded others.<sup>10</sup>

It was also found that women who joined a sorority gained significantly more weight over the course of three years than did women who were not in a sorority.<sup>19</sup> After three years in a sorority, participants reported higher levels of drive for thinness than non-sorority women. In non-sorority women there was a decrease in preoccupation with weight over three years, while sorority women maintained their same thought levels. This may suggest that

dieting and weight issues are emphasized within sororities, but more research on the amount of time spent in a sorority is needed to make further conclusions.<sup>19</sup>

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APPENDIX B

IRB APPLICATION APPROVAL



NORTHERN ILLINOIS UNIVERSITY

## Office of Research Compliance and Integrity

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815-753-8588 · Fax 815-753-1631 · [www.niu.edu/orci](http://www.niu.edu/orci)

11-Apr-2014

Hannah Tower

Family, Consumer and Nutrition Sciences

RE: Protocol # **HS14-0132** "**The relationship of sorority membership with body objectification in sorority women at a Midwestern university**"

Dear Hannah Tower,

Your application for institutional review of research involving human subjects was reviewed by Institutional Review Board #2 on **11-Apr-2014** and it was determined that it meets the criteria for exemption, as defined by the U. S. Department of Health and Human Services Regulations for the Protection of Human Subjects, 45 CFR 46.101(b), 2

Although this research is exempt, you have responsibilities for the ethical conduct of the research and must comply with the following:

Amendments: You are responsible for reporting any amendments or changes to your research protocol that may affect the determination of exemption and/or the specific category. This may result in your research no longer being eligible for the exemption that has been granted.

Record Keeping: You are responsible for maintaining a copy of all research related records in a secure location, in the event future verification is necessary. At a minimum these documents include: the research protocol, all questionnaires, survey instruments, interview questions and/or data collection instruments associated with this research protocol, recruiting or advertising materials, any consent forms or information sheets given to participants, all correspondence to or from the IRB, and any other pertinent documents.

Please include the **protocol number (HS14-0132)** on any documents or correspondence sent to the IRB about this study.

If you have questions or need additional information, please contact the Office of Research Compliance and Integrity at 815-753-8588.



APPENDIX C

OBJECTIFIED BODY CONSCIOUSNESS SCALE (OBCS)

## Instructions:

Choose the number that corresponds to how much you agree with each of the statements on the following pages.

Choose NA only if the statement does not apply to you. Do not circle NA if you don't agree with a statement.

For example, if the statement says "When I am happy, I feel like singing" and you don't feel like singing when you are happy, then you would choose one of the disagree choices. You would only choose NA if you were never happy.

	Strongly Disagree			Neither agree nor disagree			Strongly Agree	Does not apply
1. I rarely think about how I look.....	1	2	3	4	5	6	7	NA
2. When I can't control my weight, I feel like something must be wrong with me....	1	2	3	4	5	6	7	NA
3. I think it is more important that my clothes are comfortable than whether they look good on me.....	1	2	3	4	5	6	7	NA
4. I think a person is pretty much stuck with the looks they are born with.....	1	2	3	4	5	6	7	NA
5. I feel ashamed of myself when I haven't made the effort to look my best.....	1	2	3	4	5	6	7	NA
6. A large part of being in shape is having that kind of body in the first place.....	1	2	3	4	5	6	7	NA
7. I think more about how my body feels than how my body looks.....	1	2	3	4	5	6	7	NA
8. I feel like I must be a bad person when I don't look as good as I could.....	1	2	3	4	5	6	7	NA
9. I rarely compare how I look with how other people look .....	1	2	3	4	5	6	7	NA
10. I think a person can look pretty much how they want to if they are willing to work at it.....	1	2	3	4	5	6	7	NA

	Strongly Disagree			Neither agree nor disagree			Strongly Agree	Does not apply
11. I would be ashamed for people to know what I really weight.....	1	2	3	4	5	6	7	NA
12. I really don't think I have much control over how my body looks.....	1	2	3	4	5	6	7	NA
13. Even when I can't control my weight. I think I'm an okay person .....	1	2	3	4	5	6	7	NA
14. During the day, I think about how I look many times.....	1	2	3	4	5	6	7	NA
15. I never worry that something is wrong with me when I am not exercising as much as I should.....	1	2	3	4	5	6	7	NA
16. I often worry about whether clothes I am wearing make me look good.....	1	2	3	4	5	6	7	NA
17. When I'm not exercising enough, I question whether I am a good enough person.....	1	2	3	4	5	6	7	NA
18. I rarely worry about how I look to other people.....	1	2	3	4	5	6	7	NA
19. I think a person's weight is mostly determined by the genes they are born with...	1	2	3	4	5	6	7	NA
20. I am more concerned with what my body can do than how it looks.....	1	2	3	4	5	6	7	NA
21. It doesn't matter how hard I try to change my weight, its probably always going to be about the same.....	1	2	3	4	5	6	7	NA
22. When I'm not the size I think I should be, I feel ashamed.....	1	2	3	4	5	6	7	NA
23. I can weight what I'm supposed to when I try hard enough.....	1	2	3	4	5	6	7	NA
24. The shape you are in depends mostly on your genes.....	1	2	3	4	5	6	7	N

APPENDIX D  
SOCIAL PRESSURE SCALE

Directions: Please read each of the following items carefully and indicate the number that best reflects your agreement with the statement.

Definitely Agree = 1  
 Mostly Disagree = 2  
 Neither Agree Nor Disagree = 3  
 Mostly Agree = 4  
 Definitely Agree = 5

Answer the following questions with relevance to your SORORITY SISTERS:

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 1. My sorority sisters encourage me to get thinner                           | 1 | 2 | 3 | 4 | 5 |
| 2. I feel pressure from my sorority sisters to improve my appearance         | 1 | 2 | 3 | 4 | 5 |
| 3. I feel pressure from my sorority sisters to get in better shape           | 1 | 2 | 3 | 4 | 5 |
| 4. I feel pressure from my sorority sisters to decrease my level of body fat | 1 | 2 | 3 | 4 | 5 |

APPENDIX E

DEMOGRAPHICS SCALE

## 1. Gender

- Male
- Female
- Other

## 2. Age

- Write in

## 3. With which group would you say you most identify? (You may choose more than one response)

- American Indian and Alaska Native
- Hispanic or Latino
- Asian
- White (Not Hispanic)
- Black or African American (Not Hispanic)
- Native Hawaiian and other Pacific Islander
- Mixed Heritage
- Other

## 4. Year in School

- Freshman
- Sophomore
- Junior
- Senior
- Other

## 5. Undergraduate major

- |   |   |   |
|---|---|---|
| <input type="radio"/> Accountancy                           | <input type="radio"/> Communication                             | <input type="radio"/> Economics                             |
| <input type="radio"/> Anthropology                          | <input type="radio"/> Communicative Disorders                   | <input type="radio"/> Electrical Engineering                |
| <input type="radio"/> Applied Management                    | <input type="radio"/> Community Leadership and Civic Engagement | <input type="radio"/> Elementary Education                  |
| <input type="radio"/> Art                                   | <input type="radio"/> Computer Science                          | <input type="radio"/> English                               |
| <input type="radio"/> Athletic Training                     | <input type="radio"/> Early Childhood Education                 | <input type="radio"/> Environmental Studies                 |
| <input type="radio"/> Biological Sciences                   | <input type="radio"/> Journalism                                | <input type="radio"/> Family and Child Studies              |
| <input type="radio"/> Business Administration               | <input type="radio"/> Kinesiology                               | <input type="radio"/> Finance                               |
| <input type="radio"/> Chemistry                             | <input type="radio"/> Management                                | <input type="radio"/> Music                                 |
| <input type="radio"/> French                                | <input type="radio"/> Marketing                                 | <input type="radio"/> Nursing                               |
| <input type="radio"/> Geography                             | <input type="radio"/> Mathematical Sciences                     | <input type="radio"/> Nutrition and Dietetics               |
| <input type="radio"/> Geology and Environmental Geosciences | <input type="radio"/> Mechanical Engineering                    | <input type="radio"/> Hospitality Administration            |
| <input type="radio"/> German                                | <input type="radio"/> Medical Laboratory Sciences               | <input type="radio"/> Operations and Information Management |
| <input type="radio"/> Health Education                      | <input type="radio"/> Meteorology                               | <input type="radio"/> Philosophy                            |
| <input type="radio"/> History                               |   | <input type="radio"/> Physical Education                    |
| <input type="radio"/> Industrial and Systems Engineering    |   |   |

- Physics
- Pre-Physical Therapy
- Psychology
- Public Health
- Sociology
- Spanish
- Special Education
- Technology
- Textiles, Apparel, and Merchandising
- Theatre
- Other
- Undecided

6. Are you a member of one of the seven National Panhellenic Conference Sorority Chapters? (Alpha Delta Pi, Alpha Phi, Alpha Sigma Alpha, Delta Gamma, Sigma Kappa, Delta Zeta, or Sigma Sigma Sigma)

- Yes
- No

**7. If you answered yes to Question 6:**

How many months have you been a member of the sorority?

- Write in

**8. If you answered yes to Question 6:**

How many months, if any have you lived in a sorority house?

- Write in



APPENDIX F  
CONSENT AGREEMENT

By completing and submitting this online survey, you are agreeing to the following statements:

I am participating in the research project regarding the role of sororities in body objectification, which occurs when an individual's body parts or functions are separated from the person and reduced to the state of instruments or regarded as representing the entire person. I understand the purpose of this study is to obtain information about body objectification in sorority members.

I am aware that my participation in this study is voluntary and I may withdraw from the study without any penalty. I understand that if I have questions, I may contact Hannah Tower at [htower@niu.edu](mailto:htower@niu.edu) or Dr. Amy Ozier at [aozier@niu.edu](mailto:aozier@niu.edu).

I have been informed that although there are minimal foreseeable risks, due to the nature of the survey, questions or concerns may arise regarding my views on body objectification. Any questions about my rights as a research participant may be addressed to the NIU Office of Research Compliance (815) 753-8588. I understand that if I have questions or concerns after completing the survey about body objectification, the following telephone number of professionals on the NIU campus are available for me to contact:

- Counseling and Student Development Center: (815) 753-1206

I understand the importance of my opinion to discover the role of sorority membership on body objectification to further broaden the scope of information available on this topic. I understand this survey will take approximately 10 minutes to complete.

I understand that all information obtained about me for the purpose of this study will remain confidential. I understand all reporting of the research results will exclude any of my personal identifiers, including my name and NIU email address.

I understand that my consent to participate in this study does not constitute a waiver of any legal rights or redress I might have as a result of my participation. I acknowledge that I can obtain a copy of this consent form by emailing a request to Hannah Tower at [htower@niu.edu](mailto:htower@niu.edu).

APPENDIX G  
INTRODUCTION EMAIL

Sent: (Date sent to participants)

Dear potential study participant:

You have been selected to participate in my graduate thesis research project about body objectification and the role of sorority membership. The online survey contains a total of 36 questions and should take approximately 10-15 minutes to complete. The deadline is XXX. After survey completion you will be eligible to enter for a chance to win one of two \$20.00 Target gift cards.

To access the online survey, click on the following link or copy and paste it into your browser:

XXX

If you have questions, please contact Hannah Tower at [htower@niu.edu](mailto:htower@niu.edu) or Dr. Amy Ozier at [aozier@niu.edu](mailto:aozier@niu.edu). Your participation is important to us and we hope you will participate.

Thank you,

Hannah Tower  
NIU Graduate Student  
Nutrition and Dietetics

APPENDIX H  
REMINDER EMAIL

Sent: (Date sent to participants)

Dear potential study participant:

You still have time to participate in my graduate thesis research project about body objectification and the role of sorority membership. The online surveys contain a total of 36 questions and should take approximately 10-15 minutes to complete. The deadline is XXX. After survey completion you will be eligible to enter for a chance to win one of two \$20.00 Target gift cards.

To access the online survey, click on the following link or copy and paste it into your browser:

XXX

If you have questions, please contact Hannah Tower at [htower@niu.edu](mailto:htower@niu.edu) or Dr. Amy Ozier at [aozier@niu.edu](mailto:aozier@niu.edu). Your participation is important to us and we hope you will participate.

Thank you,

Hannah Tower  
NIU Graduate Student  
Nutrition and Dietetics