

## **The Drive for Thinness: The Relationship Between Social Support, Body Image and Eating Habits**

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During the transition from high school to college, students experience drastic changes in their social support networks. Family presence is limited, high school friends become Facebook friends and complete strangers take on intimate roles. Because of this transition, the college campus provides a unique setting to study the types and sources of social support and the resources for finding support.

Many researchers offer their own definitions of social support. One definition by Hale, Hannum, and Espelage (2005) encompasses four distinct dimensions: availability of tangible support (material aid), sense of belonging (the availability of people with whom to interact and socialize), level of disclosure (the sharing of personal info), and degree of social intimacy (the level of closeness and caring). These dimensions of social support can come from many different sources. Common examples, as used by Eshbaugh (2008), are family, friends, and significant others.

Some studies examining sources of social support have focused on the influences of one source on another. Peer social relationships are influenced by family support network. A study by Engels, Dekovic, and Meeus (2002) observed that parenting factors are connected to the overall quality and intensity of peer relationships. Similarly, Holahan, Valentiner and Moss (1994) found that parental support positively affect students' school adjustment and social disposition.

A resource used to find social support is group membership. A study by Garcia (2005) looked at Latina sororities and found that members had higher levels of social support than non-members. Ellison and George (1994) investigated religious groups and concluded that higher levels of religious involvement increased the quality and quantity of social networks, while a similar study found a correlation between higher religious commitment and a better psychological sense of community in college students (Bohus, Chan, and Woods 2005). However, Bohnert, Aikins and Edidin (2007) found that under-and-over-involvement in group activities indicated higher levels of depression.

A particularly interesting focus in social support research has been the relationship between social support and unhealthy habits, specifically alcohol and stimulant use. Aan het Rot, Russell, Moskowitz, and Young (2008) found that drinking alcohol was strongly associated with higher social support from sub-cultural groups such as friends. Gleason (1994) established that college women often drank alcohol to initiate friendships and feel a sense of belonging. Shillington (2006) focused on stimulants and social support, showing that university students' involvement in a strong committed romantic relationship is negatively associated with non-medical Ritalin and Adderall use. Similarly, Ford and Arrastia (2008) found that individuals with strong social ties are 43% less likely to use stimulants.

Central to our study, researchers have examined interactions between social support and unhealthy habits associated with eating, while others have examined the relationship between social support and body image. These studies consider general and specific sources of support.

Some research shows that overall satisfaction with general social support correlates positively with healthy eating habits. For example, Tiller, Sloane, Schmidt, Troop, Power, and Treasure. (1997) examined the influence of various sources on eating habits. Results show that clinically diagnosed patients with eating disorders received less social support than did a control group, and patients diagnosed with anorexia and bulimia reported differing levels satisfaction. These findings are particularly useful because they examine the quality, not just the quantity, of social support received. However, its applicability to our study is limited as the demographics of the sample are not reported. Additionally, the study only examined patients with clinical diagnoses, and thus the results cannot be generalized to a wider population with disordered eating habits.

Reinforcing the conclusions of Tiller et al. (1997), Evans and Wertheim (1998) found that the relationship between dissatisfaction with general social support received and unhealthy eating habits were positively correlated. Similarly, Ford and Arrastia (2008) found that higher levels of social support correspond with healthier habits. In contrast, Pritchard and Yalch (2008) found that increased loneliness, which is related to a lack of social support, did not augment the drive for thinness.

Other research has focused specifically on one source of social support. Studies analyzing the family have consistently supported the hypothesis that social support received from the family plays an important role in shaping body image and eating habits. However, they may disagree as to how. Haworth-Heoppner (2000) interviewed white middle-class females to determine how the family perpetuates Western cultural ideals of thinness. The study revealed that negative familial support, such as coercive parental control, unhealthy

discourse on body weight, and unloving parent-child relationships are all highly correlated with eating disorders. However, the homogenous sample used in this study limits its generalizability. Contrary to Haworth-Heoppner (2000), Carr and Friedman (2006) showed that underweight respondents had more positive family relationships than average, overweight, and obese respondents. Although causality cannot be determined, this study strongly supports the hypothesis that family social support is associated with body weight.

Several studies considered the source of friendship, finding a relationship between the levels of social support received from friends and body image and eating habits. For example, Schultz and Paxton (2007) explored the relationships between adolescent female peer groups and body dissatisfaction, dieting and disordered eating. Results showed that negative aspects of friendships, such as conflict and alienation, were positively correlated with body dissatisfaction and had a greater impact on body image than positive aspects, such as bolstering self-esteem. Gerner and Wilson (2005) found that girls with lower levels of friendship intimacy and perceived social support were more concerned about body image, but that lower levels of support did not correlate with greater body dissatisfaction. These studies are particularly relevant to our investigation of social support, body image, and eating habits as we also focused on friendship as a source of support.

A study by Cash, Jakatdar, and Williams (2004) helped to define our understanding of body image. They described two facets of body image: the level of satisfaction with one's physical appearance and the importance of appearance in relation to one's sense of self. The researchers created the Body Image Quality of Life Inventory to measure these two aspects of body image. Results showed that a poorer body image quality of life correlated with greater appearance dissatisfaction and lower perceived social support. A major strength of this study is the recognition of the impact body image has on daily life. One limitation is that the majority of respondents were women, making the sample non-representative.

Two studies in particular influenced our conception of eating habits. First, Hesse-Biber, Marino, and Watts-Roy (1999) conceived of eating habits as a spectrum of behaviors, ranging from normal to disordered. Investigating the relationship between social support and disordered eating, the researchers found that success in social relationships leads to positive self-concept, higher self-esteem and healthy eating habits. One strength was the identification of self-esteem as an intervening variable between body image and eating habits.

On the whole, the samples used in these studies are not generalizable to the population of young adults in the United States because they are

consistently limited in diversity in terms of race, gender, and economic status. However, given the demographics of the St. Olaf College community, our sample will reflect a comparable population.

Our study investigated the relationship between social support, body image, and eating habits within the St. Olaf College community. We explored two dimensions of social support: belonging and self-disclosure, neither of which has been examined thoroughly in relation to body image and eating habits. Due to the importance of friends as a source of social support on a residential campus, we focused specifically on the support received from on-campus friends. Because much of the past research found positive correlations between social support, body image, and eating habits, our study sought to determine if this same association holds true at St. Olaf.

## METHODS

We studied social support, body image, and eating habit using an online quantitative survey questionnaire. Our research was part of a broader survey measuring different dimensions and sources of social support.

We identified the following hypotheses to test the relationship between social support, body image, and eating habits:

- 1) Social Support is positively correlated with healthy eating habits;
- 2) Social Support is positively correlated with healthy body image; and
- 3) Female body image is more strongly correlated with social support than is male body image.

### Participants

Our target population was the approximately 3000-member student body at St. Olaf College, a Lutheran-affiliated private liberal arts college in Northfield, Minnesota. Because the rule of thumb for sample size recommends a sample size of 30% for populations of 1000 and 10% for populations of 10,000 (Neuman 2007), we selected a sample size between these two. We sampled 25% of the student body, giving us a sample ratio of 1:4.

We chose a simple random sample method because it is the easiest and most reliable way to gather representative data (Neuman 2007). The sample was generated randomly via computer from the sampling frame defined by the St. Olaf student email directory. We excluded individuals who participated in our focus group, were studying abroad, were under the age of 18, or were enrolled in our Quantitative Research Methods class. An email alias was created to store sample emails. This process was completed by Susan Canon, Director of Institutional Research at the St. Olaf College Review Board.

On November 4, 2009, 703 St. Olaf students received invitations via their email accounts, asking them to take our online survey. The survey closed on

November 12, 2009. Of the 705 students surveyed, 333 responded, giving us a response rate of 47 %. Of the respondents, 32% were male, 65% female, and 0.6% categorized their gender as "other" and 25% were seniors, 21% juniors, 22% sophomores, 27% were first years, and 0.6% categorized their class year as "other."

## Measures

Our independent variables were two dimensions of social support: belonging and self-disclosure. Our dependent variables were body image and eating habits. We also tested body image as an intervening variable and gender as a confounding variable between eating habits and social support. Our survey was comprised of yes/no, multiple choice, and four-point Likert Scale questions.

### *Belonging*

We adapted the conceptual definition of belonging given by Hale, Hannum, and Espelage (2005) to include connectedness, inclusivity, and the feeling of being a valued group member. Our Belonging Index targeted these three components and consisted of the following indicators: *I feel disconnected from the St. Olaf community* (connectedness), *I feel like I fit in well among my friends* (inclusivity), and *I feel undervalued by my friends* (feeling valued). Participants indicated their level of agreement with each statement on a four-point Likert Scale. Again, we assigned each level of agreement a point value and created a composite score of belonging for each participant. These scores allowed us to categorize participants into one of three groups on a Belonging Scale: Good, Moderate, and Poor. In the Belonging Scale, we defined a score of 0-1 as indicating "Good Belonging," a score of 2-5 indicating "Moderate Belonging," and a score of 6-9 indicating "Bad Belonging."

### *Self-Disclosure*

Self-disclosure is the ability to share personal feelings with someone else (Hale, Hannum, and Espelage 2005). To measure self-disclosure, we created the Self-Disclosure Index, consisting of the following indicators: *I have a trust-filled sharing relationship with at least one friend, I have one or more peers that I confide in on campus, I communicated with the people I'm closest to on a regular basis, and I know someone who is available to talk to me at any time.* Participants indicated their level of agreement with each statement on a four-point Likert Scale. We assigned each level of agreement a point value and created a composite score of self-disclosure for each participant. The scores obtained from this study allowed us to organize participants into three categories: Good, Moderate, and Poor. In the Self-Disclosure Scale, we defined a score of 0-2 as indicating "Good Self-Disclosure," a score of 3-5 as indicating "Moderate Self-Disclosure," and a score of 6-12 as indicating "Bad Self-Disclosure."

### *Body Image*

As already noted, body image is defined as an individual's level of satisfaction with his or her body weight and its impact in his or her daily life (Cash, Jakatdar, and Williams 2004). To measure these two components, we developed the Body Image Index. Two indicators measured body weight satisfaction: *I feel self-conscious if my weight increases even a little, I feel satisfied with my body weight.* Indicators measuring importance within daily life consisted of following: *I have an intense fear of gaining weight, I am constantly trying to hide my weight, and I avoid my friends because I am self-conscious about my weight.* We assigned each level of agreement a point value so that a poorer body image corresponds with higher point values. Indicators measuring the importance of body image in daily life were weighted because they are more suggestive of a negative body image. Using these point values, we created a composite body image score for each participant, which allowed us to place respondents on a scale consisting of four categories: comfortable, moderate, poor, and unhealthy. In the Body Image Scale, we defined a score of 0-1 as indicating a comfortable body image, a score of 2-4 indicating a moderate body image, a score of 5-18 indicating a poor body image, and a score of 19-29 indicating an unhealthy body image. Respondents in the Comfortable/Satisfied category felt highly satisfied with their body weight, while respondents in the Unhealthy category were extremely dissatisfied with their body weight to the extent that it negatively influenced daily life.

### *Eating Habits*

We defined eating habits as eating patterns along a spectrum ranging from healthy behaviors to the clinical criteria of an eating disorder (Hesse-Biber et al. 1999). This range of behaviors included the use of dieting, diuretics, diet pills, laxatives, binging, vomiting, fasting, and exercising to a harmful level for the purpose of losing weight. To fit this conceptual definition, we adapted the "Eating Habits Scale" created by Hesse-Biber et al. (1999), which breaks habits into five categories. Categories reflect respondents' eating habits only during their time at St. Olaf. "Ideal Eaters" includes individuals who have never deprived themselves of food for a period of time; used diet pills, diuretics, or laxatives; or binged, vomited, fasted, or exercised to a harmful level. "Normal Dieters" includes individuals who have only deprived themselves of food once or more than once. "Extreme Dieters I" includes individuals who have used diet pills, fasted, or engaged in harmful exercise only once. "Extreme Dieters II" includes individuals who have vomited or used laxatives only once. "Extreme Dieters II" may also include behaviors characteristic of "Extreme Dieters I." "At Risk" includes individuals who have used diet pills, fasted, engaged in harmful exercise, vomited, or used laxatives more than once.

### **Validity**

We increased the validity of our measures through several means. We increased content validity, which means that we represented all aspects of our conceptual definition in our measures, by targeting all facets of the belonging, self-disclosure, and body image definitions (Neuman 2007). For our Eating Habits Scale, we increased content validity by asking questions that targeted each habit included in our definition. Also, we increased face validity, which means that members of the scientific community agreed that our measures appear to measure what we claim to measure (Neuman 2007). To ensure this, St. Olaf Quantitative Research Methods instructor, Professor Ryan Sheppard, and classmates reviewed our measures of belonging, disclosure, body image and eating habits, and agreed they appeared to measure our conceptual definitions.

### **Reliability**

We also increased the reliability of our measurements in several ways. Working to clearly conceptualize our definitions, we used established literature for guidance and clarified the components involved in the definitions of belonging, body image and eating habits (Neuman 2007). In addition, we explained to participants that our conception of eating habits only concerned their time at St. Olaf. We further increased reliability by choosing precise levels measurement (Neuman 2007). We used ordinal variables based on a four point Likert Scale for body image and social support questions, as well as three multiple choice categories for eating habits (measuring frequency of habit), which we then employed in our indexes and scales. A final means of increasing reliability was our use of a focus group and a test survey to gather multiple opinions, narrow research, determine our conceptual definitions, and formulate and revise questions for the final survey. The focus group, which took place on October 14th, 2009, involved seven St. Olaf student volunteers and the researchers. The multiple opinions allowed our final survey, while not exhibiting flawless reliability, to attain consistency and repeatability.

### **Ethics**

In preparing for our research, we addressed several ethical issues. One concern included the potential risks to participants. First, sensitive survey questions concerning body image and eating disorders could have triggered psychological or emotional stress. To reduce this risk, we consulted past literature for guidance in phrasing and organizing potentially threatening questions. Additionally, a self-report questionnaire provokes minimal stress compared to more invasive research methods.

Another type of risk involved potential social harm to participants. Individuals may have shared information they would not want publicized, such as their attitudes about their body and unhealthy eating habits. To reduce this risk, great care was taken to ensure anonymity;

participants were completely nameless to us as researchers. Susan Canon, Director of Institutional Research at St. Olaf College, stored respondents' names and emails in a password-protected email alias, held separately from their online responses. We were never able to link names with responses.

The risks involved were described in our cover letter, included in the email inviting our sample to take part in our survey. The cover letter also explained participants' role in the study, the voluntary nature of the survey, and that their participation indicated consent. By obtaining informed consent we ensured the full understanding and willingness of the participants. In addition, we ensured cognitive understanding by excluding vulnerable populations, such as minors, from our sample.

We guaranteed compliance with institutional and federal ethical standards by obtaining the approval of the St. Olaf College Institutional Review Board. Approval at an intermediate level was given by IRB member Charles Huff, Professor of Psychology at St. Olaf. The intermediate level is characterized by minimal risk, the absence of vulnerable subject, and the inability to generalize our results beyond the St. Olaf community. It also allows us to publish our results beyond the St. Olaf community (St. Olaf College IRB 2007).

## **RESULTS**

Results show that the majority of students reported good body images, healthy eating habits, and high levels of social support.

Figure 1 shows the distribution of students on our Eating Habits Scale, with higher scores corresponding to unhealthy eating habits. We found that most participants were Ideal Eaters (47.7%). The next largest category was Normal Dieters (25.5%). The two smallest categories were Extreme Dieters I (4.8%) and Extreme Dieters II (0.9%). The category of "At Risk Dieters" (14.4%) was larger than the two Extreme Dieter categories combined.

Figure 2 displays the distribution of scores for students' body images--higher scores signify poorer body images. As shown in Table 1, 50% of the respondents scored 5.0 or less, qualifying them for the categories "Poor,"

"Moderate," or "Comfortable."

<b>Table 1: Quartiles for Body Image</b>		
Body Image		
N	Valid	317.0000
	Missing	16.0000
Mean		6.3060
Median		5.0000
Percentiles	25	2.0000
	50	5.0000
	75	10.0000

**Figure 2**

**Figure 2**



## Figures

3 and 4 display the distribution of scores for belonging and self-disclosure received from on-campus peers, respectively. The data skewed right for both indexes. Table 2 shows that 25% of the St. Olaf population scored from 0-1, a score that corresponds with the category “Good Belonging.” More than 50% of students scored a 0-2 for Self-Disclosure, the scores indicative of “Good Self-Disclosure” (Table 2).

**Table 2: Quartiles for Belonging and Self-Disclosure**

	Belonging	Self-Disclosure
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N	Valid	312	313
	Missing	21	20
Mean		2.3173	1.9137
Median		2.0000	1.0000
Percentiles	25	1.0000	.0000
	50	2.0000	1.0000
	75	4.0000	3.0000

To test the hypothesis that social support is positively correlated with eating habits, we ran a Spearman's rho bivariate correlation test because our two indexes were skewed. As seen in Table 3, Belonging was significantly correlated with healthy eating habits ( $\rho = 0.132$ ,  $p\text{-value} = 0.022$ ), while self-disclosure was not significantly correlated with healthy eating habits ( $\rho = -0.045$ ,  $p\text{-value} = 0.433$ ). Therefore, this hypothesis was supported for belonging but not for self-disclosure.

Table 3: Social Support and Eating Habits Correlations							
			Self-Disclosure	Belonging	Eating Habits Score		
Spearman's rho	Self-Disclosure	Correlation Coefficient	1.000	.460**	-.045		
		Sig. (2-tailed)	.	.000	.430		
		N	313	308	304		
	Belonging	Correlation Coefficient	.460**	1.000	.132*		
		Sig. (2-tailed)	.000	.	.022		
		N	308	312	303		
	Eating Habits Score	Correlation Coefficient	-.045	.132*	1.000		
		Sig. (2-tailed)	.430	.022	.		
		N	304	303	311		
**. Correlation is significant at the 0.01 level (2-tailed).							
*. Correlation is significant at the 0.05 level (2-tailed).							

We also ran Spearman's rho to test the relationship between social support and healthy body image. As shown in Table 4, self-disclosure was significantly correlated with healthy body image ( $\rho=.124$ ,  $p\text{-value}=.03$ ). Belonging was significantly correlated with healthy body image ( $\rho=.293$ ,  $p\text{-value}=.000$ ) to a greater extent than was self-disclosure. Therefore the hypothesis that social support is positively correlated with body image is supported for both dimensions of social support.

Table 4: Social Support and Body Image Correlations							
			Body Image	Self-Disclosure	Belonging		
Spearman's rho	Body Image	Correlation Coefficient	1.000	.124*	.293**		
		Sig. (2-tailed)	.	.030	.000		
		N	317	310	309		
	Self-Disclosure	Correlation Coefficient	.124*	1.000	.460**		
		Sig. (2-tailed)	.030	.	.000		
		N	310	313	308		
	Belonging	Correlation Coefficient	.293**	.460**	1.000		
		Sig. (2-tailed)	.000	.000	.		
		N	309	308	312		
*. Correlation is significant at the 0.05 level (2-tailed).							
**. Correlation is significant at the 0.01 level (2-tailed).							

To test the hypothesis that female body image was more correlated with social support than was male body image, we ran a Spearman's rho test. Female body image was not significantly correlated with self-disclosure ( $\rho=.094$ ,  $p\text{-value}=.357$ ), but male body image was ( $\rho=.292$ ,  $p\text{-value}=.000$ ). Female body

image was significantly correlated with belonging ( $\rho=.306$ ,  $p\text{-value}=.0022$ ), as was male body image ( $\rho=.295$ ,  $p\text{-value}=.0000$ ). Therefore this hypothesis was not supported.

We tested several potential confounding variables: gender, class year, support received from families, and the presence of a romantic relationship. We found no significant relationship with any of these variables.

## DISCUSSION

Surprisingly, our hypothesis that social support is positively correlated with healthy eating habits was only partially supported: belonging and healthy eating habits were significantly correlated, while self-disclosure and healthy eating habits were not. The former could be explained by the role of health perceptions, which has been associated with belonging (Hale et al. 2005). An individual's perceptions of their health may influence their eating habits. For instance, a student who perceives his or her body to be healthy will eat in a manner to maintain their health. The role of socialization could also play a role in the relationship between belonging and eating habits; as an individual strives for belonging at St. Olaf, he or she may adopt other Oles' eating habits. The lack of relationship between self-disclosure and eating habits may be explained by the role of outside factors (sexual abuse, depression, etc.) on disordered eating. Whether or not the individual confides in others may not alleviate the influence of the outside factor. Therefore, the ability to self-disclose simply may not influence eating habits.

As expected, our hypothesis that social support is positively correlated with body image was supported for both dimensions of social support, although belonging showed a stronger correlation than did self-disclosure. These results indicate a relationship between belonging and an individual's body image, possibly due to the mediating variable of self-esteem between belonging and body image. For instance, the feeling of being a valued member of a group (one indicator of belonging according to our definition) can bolster self-esteem. This idea is corroborated by past literature which has linked self-esteem with body image (Sanford and Donovan 1985). Additionally, our results indicate that higher levels of self-disclosure predict better body images, possibly due to the gain of coping mechanisms resulting from confiding in peers (Cash et al. 2004). For example, confiding in on-campus peers can provide an individual with good advice on how to deal with issues of body image specific to St. Olaf campus.

A general pattern in our results is that on-campus belonging is more strongly correlated with eating habits and body image than is on-campus self-disclosure. Belonging could be more predictive of body image and eating habits than self-disclosure because feelings of belonging could indirectly mitigate

deeper underlying issues that correlate with unhealthy body image and eating habits. Self-disclosure may have less of a role in these underlying issues because talking about issues may not alleviate their presence. Furthermore, sexual abuse and depression,

issues that often accompany disordered eating and unhealthy body images, are likely to be private concerns that suffering individuals may not often share with others.

We also hypothesized that female body image would be more strongly correlated with social support than male body image. Surprisingly, we found no significant difference between males and females. One explanation for this lack of significance could lie in the sample of the male population that responded to the survey: those males who took the time to complete a survey on body image and eating habits issues might have more personal stake in the issue. If this discrepancy is the case, our collective male data may not be representative of males at St. Olaf. Alternatively, the insignificant data may suggest that body image is becoming more of an issue for men.

Not surprisingly, the correlation between eating habits and body image was the strongest result we found. Our results show that body image is more strongly correlated with both eating habits and social support than social support is correlated with eating habits. Thus, body image serves as an intervening variable and may show directionality in the relationship between social support and eating habits: social support influences body image attitudes, and body image manifests itself in eating habits.

Finally, we found no significant relationship between the possible confounding variables we tested (gender, family social support, class year, presence of romantic relationship) and the variables of belonging, self-disclosure, body image, and eating habits. Particularly interesting was the absence of a relationship between gender and our other variables. It is possible gender was insignificant because of the type of people responding. As articulated above, it is possible that those individuals who take the time to answer questions pertaining to body image and eating habits have personal investment in the topic, diminishing any gender bias. Another explanation may be that the issues of body image, eating habits and social support transcend gender. Our ability to test other confounding variables, such as personality, sexual abuse, and socialization was limited by our survey.

## **CONCLUSION**

Our study examined the relationship between social support, body image, and eating habits at St. Olaf College. The majority of our results supported our hypotheses, and those that were not supported provided interesting findings. We found that while belonging was positively correlated with eating habits, self-disclosure was not. We also found that female body image was not more strongly correlated to social support than was male body image, which was contrary to our initial prediction. This finding may indicate that issues regarding male body image and eating habits are a growing concern which should be investigated. Another surprising result was that the average body image for the respondents of our sample fell into the "poor body image" category, while the average eating habits score fell into "Normal Dieters." Our results contribute to the body of scientific knowledge regarding social support and health, and facilitate discussion on which dimensions of social support most affect eating habits and body image.

The results of our study may be useful to the St. Olaf Wellness Center and other campus health facilities to learn about attitudes towards body image and unhealthy eating habits. They could use our data to create programs to increase belonging support, which in turn could promote healthy attitudes towards body and eating habits. Our results could create awareness about how St. Olaf students truly feel about their sense of wellness.

One strength of our study was the validity of our "Eating Habits Scale" and "Negative Body Image Scale." We increased the face validity of these measures by seeking the approval of our professor, Ryan Sheppard, and classmates in our research methods class. They agreed that our measures accurately assessed our conceptual definitions. In addition, our indicators measured all aspects of these definitions, providing our two scales with content validity. A second strength was the fairly equal distribution of class year, which is representative of the St. Olaf population. Another strength was our recognition that body image may act as an intervening variable between social support and eating habits, an idea not discussed in past research. A final strength was that our results extended the link between belonging and physical health (Eshbaugh 2008) to include the area of mental health, specifically in regards to eating disorders.

The limitations of our study included the moderate response rate and homogeneity of our sample. Because of the response rate, some members of the scientific community would argue that our results may not be generalizable to the St. Olaf population. A second limitation was that we did not focus on exercise, despite its prevalence on the St. Olaf campus. Initially, we created survey questions addressing exercise behaviors, but removed them due to space constraints on the questionnaire. We believe we overlooked an important

dependent variable that could have provided insightful results.

Therefore, we would encourage future researchers to examine the relationship between unhealthy exercise, body image, and social support. A longitudinal study could also be developed to analyze the changes of body image and eating habits during students' time at St. Olaf. Lastly, further studies could explore how socialization from groups, such as sports teams, family, friends, and significant others, affects eating habits and body image.

## References

- Aan het Rot, Marija, Jennifer J. Russell, Debbie S. Moskowitz and Simon N. Young. March 2008. "Alcohol in a social context: Findings from event-contingent recording studies of everyday social interactions." *Alcoholism: Clinical & Experimental Research*. 32, 459-471.
- Bohus, Steve, Caleb K. Chan and Robert H. Woods Jr. 2005. "Psychological Sense of Community among Students on Religious Collegiate Campuses in the Christian Evangelical Tradition." *Christian Higher Education*. 4:19-40.
- Bohnert, Amy M., J. W. Aikins and J. Edidin. 2007. "The Role of Organized Activities in Facilitating Social Adaptation Across the Transition to College." *Journal of Adolescent Research*. 22:189-208.
- Carr, Deborah and Michale A. Friedman. 2006. "Body Weight and the Quality of Interpersonal Relationships." *Social Psychology Quarterly* 69:2. Retrieved September 22, 2009. Available: American Sociological Association.
- Cash, Thomas F., Tejal A. Jakatdar, Emily Fleming Williams. 2004. "The Body Image Quality of Life Inventory: Further Validation with College Men and Women." *Body Image*, 1:3. Retrieved September 18, 2009. Available: ScienceDirect College Edition.
- Ellison, Christopher G. and Linda K. George. 1994. "Religious Involvement, Social Ties, and Social Support in a Southeastern Community" *Journal for the Scientific Study of Religion*. 33:1. Retrieved September 21, 2009 Available: Academic Search Premier.

Engels, Rutger C. M. E., Maja Deković and Wim Meeus. 2002. "Parenting Practices, Social Skills and Peer Relationships in Adolescence." *Social Behavior and Personality*. 30:3-18.

Eshbaugh, Elaine M. 2008. "Brief Report: gender social support and loneliness among residence hall students." *Journal of College and University Student Housing* 35(2): 24-33. Retrieved September 11, 2009. Available: Academic Search Premier.

Evans, L. and E.H. Wertheim. 1998. "Intimacy patterns and relationship satisfaction of women with eating problems and the mediating effects of depression, trait anxiety and social anxiety," *Journal of Psychosomatic Research*. 44:3-4 Retrieved September 20, 2009. Available: ScienceDirect.

Ford, Jason A. and Meagan C. Arrastia. 2008. "Pill-poppers and dopers: A comparison of non-medical prescription drug use and illicit/street drug use among college students." *Addictive Behaviors*. 33:934-941.

Garcia, Gina Ann. 2005. "The Relationship of Perceptions of Campus Climate and Social Support to Adjustment to College for Latina Sorority and Non-sorority Members." University of Maryland, College Park, MD. Unpublished manuscript.

Gerner, Bibi and Peter H. Wilson. 2005. "The Relationship between Friendship Factors and Adolescent Girls' Body Image Concern, Body Dissatisfaction, and Restrained Eating." *International Journal of Eating Disorders*. 37: 313-320. Retrieved September 21 2009. Available: Academic Search Premiere.

Gleason, Nancy. 1994. "College women and alcohol: A relational perspective." *Journal of American College Health*. 42: 279-289.

Hale, Cara J., James W. Hannum , Dorothy L. Espelage. 2005. "Social Support and Physical Health: the Importance of Belonging." *Journal of American College Health*. 53: 276-84.

Haworth-Hoeppner, Susan. 2000. "The Critical Shapes of Body Image: The Role of Culture and Family in the Production of Eating Disorders." *Journal of Marriage and Family*. 62:1. Retrieved September 16, 2009. Available: National Council on Family Relations (JSTOR).

Hesse-Biber, Sharlene, Margarate Marino and Diane Watts-Roy. 1999. "A Longitudinal Study of Eating Disorders among College Women: Factors That Influence Recovery." *Gender and Society*. 13: 385-408.

Holahan, Charles J., David P. Valentiner P. and Rudolf H. Moss. 1994 "Parental Support and Psychological Adjustment During the Transition to Young Adulthood in a College Sample." *Journal of Family Psychology* 8: 215-223.

Newman, Lawrence. 2007. *Basics of Social Research: Qualitative and Quantitative Approaches*. Boston: Pearson Education, Inc..

Pritchard, Mary E. and Kyra L. Yalch 2008. "Relationships among loneliness, interpersonal dependency, and disordered eating in young adults." *Personality and Individual Differences*. 46:3.

Sanford, L.T., and M.E. Donovan. 1985. *Women and Self-Esteem*. New York: Penguin Books.

Schultz, Helen K. and Susan J. Paxton. 2007. "Friendship quality, body dissatisfaction, dieting and disordered eating in adolescent girls." *British Journal of Clinical Psychology*. 46:67-83.

Shillington, A. et al. 2006. "College Undergraduate Ritalin Abusers in Southwestern California: Protective and Risk Factors." *Journal of Drug Issues*.36: 999-1014.

St. Olaf Institutional Review Board. 2007. "Who Need to Review my Project: Determining the Review Procedure for Projects With Human Subjects." St. Olaf College IRB Forms. Retrieved December 1, 2009  
(<http://www.stolaf.edu/academics/irb/Policy/WhoReviews.pdf>)

Tiller, Jane M., Gaynor Sloane, Ulrike Schmidt, Nicholas Troop, Michael Power, and Janet L. Treasure. 1997. "Social support in patients with Anorexia Nervosa and Bulimia Nervosa." *International Journal of Eating Disorders*. 21:1.