

## **The Over-Involved Ole: Community Involvement and Depressive Symptoms**

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**Abstract.** On-campus community involvement plays a significant role in most undergraduate college experiences, but little research has investigated the relationship between on-campus community involvement and depressive symptoms. Using a random sample survey of undergraduates at a small, private liberal arts college in the Midwest, we analyzed on-campus community involvement and depressive symptoms. We were interested in determining if (a) intensity of community involvement affects depressive symptoms, and if (b) breadth of community involvement affects depressive symptoms. We found no significant relationship between community involvement and depressive symptoms.

### **Review of Literature**

Social support is a vital, if overlooked, aspect of daily life that helps individuals adjust and cope with difficult situations. According to Eshbaugh (2008) social support is having someone to talk to, feeling a sense of belongingness, and being provided emotional comfort. These needs can be fulfilled through overarching social network systems attainable through different behaviors and connections.

Studies on social support and non-medical stimulant users found that many students use drugs to heighten their social interactions or academic performance, increasing interactions with their peer group inside and outside of the classroom (Arria, O'Grady, Caldeira, Vincent, and Wish. 2008; Hall, Irwin, Bowman, Frankenberger, and Jewett. 2005; DeSantis, Webb, and Noar 2008; Gendaszek and Low 2002). Ford and Arrastria (2008) found that students' belonging to various social networks played an important role in their decision to use non-medical prescription drugs.

Researchers have also investigated the association between alcohol consumption and social support. Studies have shown that the majority of people choose to use alcohol in social situations; most drink to be more at ease and to experience more positive social interactions (El-Guebaly 2007). Research by Chawla, Neighbors, Logan, Lewis, and Fossos (2009) showed

that those who identified as problem drinkers actually drank less than moderate drinkers, but were considered problem drinkers because they turned to alcohol due lack of personal worth.

Researchers have examined the correlation between social support and the Internet. For example, Subrahmanyam, Reich, Waechter, and Espinoza (2008) studied social networks online and offline and found that many post-adolescents use online social networks to communicate with their offline social networks. Rohall, Cotten, and Morgan (2002) found that students who used the internet for communication purposes had higher self-esteem as well.

Researchers have also investigated the relationship between social support and eating disorders. Tiller, Sloane, Schmidt, Troop, Power, and Treasure (1997) found that patients with eating disorders received less social support than the participants without eating disorders. Pritchard and Yalch's (2008) research categorizes disordered eating into three symptoms; drive for thinness, bulimic symptoms and body dissatisfaction. They found that for males, loneliness was related to all three symptoms of disordered eating, but for females it only related to body dissatisfaction.

Religion is another contributing source of social support. Frankel and Hewitt (1994) found that students in religious clubs at a university had higher aspects of well-being such as higher self-esteem. Increased involvement in religion leads to an increase in the size of social support network causing feelings of belonging to increase (Ellison and George 1994).

Rosen, Mickler, and Collins (1987) investigated the relationship between contact with peers and social support. Investigations concluded that participants whose social support was rejected by a peer felt as though they were not sufficient providers of social support. Lu (1997) also observed strain on an individual's wellbeing by looking at how perceptions of social support and necessity of reciprocity could cause negative effects.

Researchers have also studied the relationship between parental support and peer social support. Research by Engels, Deković, and Meeus (2002) found that adolescents with tightly knit family units reported higher rates of peer activity and involvement. Research by Helsen, Vollebergh, and Meeus (2002) investigated the shift from parent support networks to peer support networks. They found that during the span of adolescence, perceived parental support decreased while perceived peer support increased.

The studies described above are also relevant to social support and group membership, because they show that students receive social support from various sources, not just one group. Studies of social support and group membership have examined some of the positive social outcomes of group membership (Prouteau and Wolff 2008; Royal and Rossi 1996; Garcia 2005; Freeman, Anderman and Jensen 2007; Bell 2006; Weisz and Wood 2000; Bohnert, Aikins

and Edidin 2007; Pittman and Richmond 2008; Newman, Lohman and Newman 2007). In contrast, other studies have explored the negative outcomes of involvement (Falci and McNeely 2009; Randall and Bohnert 2009).

Do individuals join groups in order to increase feelings of social support? Prouteau and Wolff (2007) found the main reason for joining volunteer organizations was the desire to be helpful to society followed by a relational motivation; that is, individuals want to obtain friendships or relationships while volunteering. The findings illustrate that higher involvement in an activity makes it more likely one will obtain friends. Thus, the motivation for participation in volunteer activities is relational; individuals do get involved in communities to make friends.

In general, communities based on common interests and characteristics have been shown to benefit their members. Royal and Rossi's (1996) study examined 10 dimensions of community, measuring values of related group connections, emotional and physical support in workplaces and schools. They found an improvement in performance, retention rates, and other psychological benefits of communities for their members. These communities are often formed based on common attributes of their members, as shown in a study exploring levels of social support for first-generation Latina college students. Garcia (2005) found that culturally specific, Latina sororities significantly improved college adjustment because of rapport and peer group belonging with others of a similar ethnic, linguistic, historic and socioeconomic background.

Similarly, other studies have concluded that social acceptance was the most decisive influence on a sense of belonging. Freeman et al. (2007) investigated the association between undergraduate students' sense of belonging at their university, academic motivation and their sense of belonging in a particular class. Positive interactions with peers and professors were associated with positive sense of college belonging and academic motivation, but there was no direct association between sense of belonging at the university, academic motivation and sense of belonging in a particular class.

Another population frequently studied within group membership and social support and first-year undergraduate college students. Bell (2006) discovered an overall positive correlation between pre-orientation program participation and social support. Similarly, Weisz (2000) found that support for first-year students' social identity through association with groups such as majors, athletic teams and volunteering was positively correlated to both closeness and contact during the second year. Bohnert et al. (2007) also investigated the relationship between organized activities and social adaptation in college. Her study utilized important measurements relevant to our area of study, it grouped activity involvement into nine different categories, including athletic, performance/fine arts, social, community, academic clubs, professional

development, press, leadership/political, and religious. Bohnert et al. (2007) found that activity involvement added to friendship quality only when participants reported higher levels of loneliness and social dissatisfaction before coming to college. More time spent in activities seems to benefit students with poorer adolescent social adaptation. However, some limitations of this study, such as the fact that students in the study attended a large residential university and the study had a relatively small voluntary sample make it difficult to generalize the findings.

Pittman and Richmond (2008) investigated the association between sense of university belonging, quality of friendships, and the psychological transition into college of college students at two points during their freshman year. The study found that positive sense of belonging in the university led to increases in scholastic competence and social acceptance. The study also found that positive changes in friendship quality and university belonging led to lower psychological problems.

Peer group belonging affects behavior problems in adolescents as well as in college students. Newman, Lohman and Newman (2007) discovered that behavior problems decreased for adolescents with high peer group membership who also placed high value on belonging to a group. The study found that adolescent females tended to exhibit more internalized behavior problems such as depressive symptoms while males exhibit more externalized behavior problems such as aggression. This study highlights the ways group membership can bring about higher levels of social support and positive social outcomes.

Other studies, however, have found negative social outcomes of over- and under-involvement. Falci and McNeely (2008) investigated the connection between social support and under- and over-integration. They found having too many friends can lead to depressive symptoms as individuals get stressed attempting to meet obligations. The scale used by Falci and McNeely, the Center for Epidemiological Studies, a screening test for depression (CES-D), measured depressive symptoms through a 45-item scale, which we adapted for our research. Being too involved or not involved enough in social networks can cause stress and depressive symptoms. In this case, having too many friends is not rewarding.

Research has also focused on the intensity of involvement in organized activity and depressive symptoms. Randall (2009) studied 9<sup>th</sup> and 10<sup>th</sup> grade students in a magnet high school and used measurements of intensity and breadth. Intensity was measured by the number of hours a student spent involved in an activity and breadth was defined as a student's number of activities. Randall reported that below-average hours per week and above-average hours per week in organized activities was associated with higher rates of depressive

symptoms. In terms of breadth of activities, students who reported narrow and wide range of organized activities reported the lowest rates of depressive symptoms.

We understand that both positive and negative social outcomes can result from group membership and involvement, but we are particularly interested in investigating negative outcomes of group membership, such as among college students. While the majority of relevant research has focused on high school students and first-year undergraduate college students, few studies have investigated group membership and social support among older students at undergraduate institutions. Our research will gather more information about a previously underrepresented student population.

## **Research Methods**

For this study we administered a voluntary online survey questionnaire in the fall of 2009 to a simple random sample of students at St. Olaf College, a small, private, Liberal Arts College in the Upper Midwest. Our survey was part of a larger project on social support in a quantitative research methods class. Our portion of the online survey questionnaire incorporated Likert-type attitude questions, fill-in factual questions, an experiential checklist, and three demographic questions. Questions focused on the central concepts of the intensity of community involvement, the breadth of community involvement, depressive symptoms, and sense of belonging. Our survey tested the following hypotheses:

1. Students with high intensity of community involvement will show a higher level of depressive symptoms.
2. Students with low intensity of community involvement will show a higher level of depressive symptoms.
3. Students with high breadth of community involvement will show a higher level of depressive symptoms.
4. Students with low breadth of community involvement will show a high level of depressive symptoms.

*Community Involvement Breadth.* We conceptualized this as the number of organized activities students were involved in. For example, in an open-ended write in question, we asked students to list how many on-campus organized activities they were involved in this semester. Then as a group, we counted and recorded the number of activities that respondents listed.

*Community Involvement Intensity.* We conceptualized this as the number of hours per week spent participating in on-campus organized activities and friendships. We used fill-in questions

to gather information about the St. Olaf students' intensity of community involvement. For example we asked, "On average, this semester, how many hours per week do you spend on these groups?" and "On average this semester, how many hours do you spend with friends?"

*Depressive Symptoms.* We operationalized depressive symptoms with a 6-item modified CES-D scale (Falci and McNeely 2008) that measured patterns of eating, sleeping, motivation, and energy. Statements included "Everything I do feels like an effort", "I sleep restlessly", "my eating habits are different than usual", "I cannot get motivated", and "I feel I am just as good as other people". Response categories ranged from "Rarely or none of the Time" to "Most or All of the Time."

*Sense of Belonging.* We measured this with two Likert-type scales. Participants ranked their agreement with the statements "My involvement with organized activities on campus gives me a sense of belonging at St. Olaf College" and "My friends on campus give me a sense of belonging at St. Olaf College." Response categories included strongly agree, somewhat agree, somewhat disagree, and strongly disagree.

#### Validity and Reliability

We sought validity and reliability for these measures in various ways. Neuman (2007) introduces three types of measurement validity, face validity, content validity, and criterion validity: Face validity is an agreement in the scientific community that the indicators measure what they propose to measure. We achieved face validity through peer reviews of our measurements and survey questions, along with critique from our professor. Content validity means fully specifying the entire content of a construct's definition and then measuring all of that content (Neuman 2007), so that the constructs definition is aligned with that constructs measure. For example, when asking students to list the activities they were involved in, we presented our conceptual definition of on-campus activity involvement as participation in as groups such as "fine arts groups" (music, dance, theater, and art), "athletic teams" (varsity, club, intramural), and "student-run organizations" (such as Student Government Association, volunteer organizations, religious organizations, multicultural organizations, and awareness organizations). In coding our data, we only used information that fell into the categories of our construct, showing the alignment between our definition of on-campus community organized activities and our content measure of organized activities. The final measure of validity is criterion validity. Criterion validity uses a previously established standard in a construct (Neuman 2007). For example, we worked towards criterion validity by adopting and modifying our CES-D scale (Falci and McNeely 2008). We also adopted the intensity of community

involvement measurements and breadth of community involvement measurements (Randall 2009) from previously established research studies.

Reliability means dependability. We used four steps to improve our reliability. We first created concrete definitions of our variables. Next, we used pilot tests to clarify our survey with our peers in the 371 classroom and conducted focus groups with other students to gain feedback on our topic. In order to increase precision, we used exhaustive measurement with scaled items and open-ended questions for our non-Likert type items. Finally, we asked multiple questions that addressed different aspects of our conceptual definitions.

### Sampling Procedures

The target population for our study was St. Olaf College students. In order to determine the size of our sample we utilized Neuman's (2007) rule of thumb, which states a target population of 3000 falls between a small population of 1000, for which the rule of thumb is a 30% sample, and a larger population of 10,000, for which the rule of thumb is a 10% sample. We invited 703 participants, and 333 students completed the survey giving a response rate of 47.3%. We used a simple random sample, so that each student had an equal and independent opportunity of participating in our study. In order to get a representative sample that would enable us to generalize our results to a larger population, we used a simple random sample. Respondents were randomly selected using a computerized process, excluding students from both sections of the research methods classes, preliminary focus group participants, students under the age of 18, and students studying abroad. Of our respondents 31.2% were male (104), 64.9% were female (216) and 0.6% of our respondents replied as other (2). 27% were freshmen(90), 22.2% were sophomores(74), 21.3% were juniors(71), 25.2% were seniors(84) and 0.6% of our respondents did not fall into any class year(2).

### Ethics

We had to consider several ethical issues during our research, including informed consent, the rights of special population, and privacy. We responded to the issue of informed consent by composing a cover letter introducing our research project and explaining the benefits (a time for reflection) and potential risks involved, along with the voluntary nature of participation. We made it clear that students were giving consent by completing the survey and that they could skip any question and quit the survey at any time without penalty. The cover letter also included our professor's information, providing a point of contact for participants to direct and specific questions or concerns relating to the survey. We responded to the rights of special populations by excluding students under the age of 18 from our study. Had they been included, we would have needed to obtain informed consent from their legal guardian. We

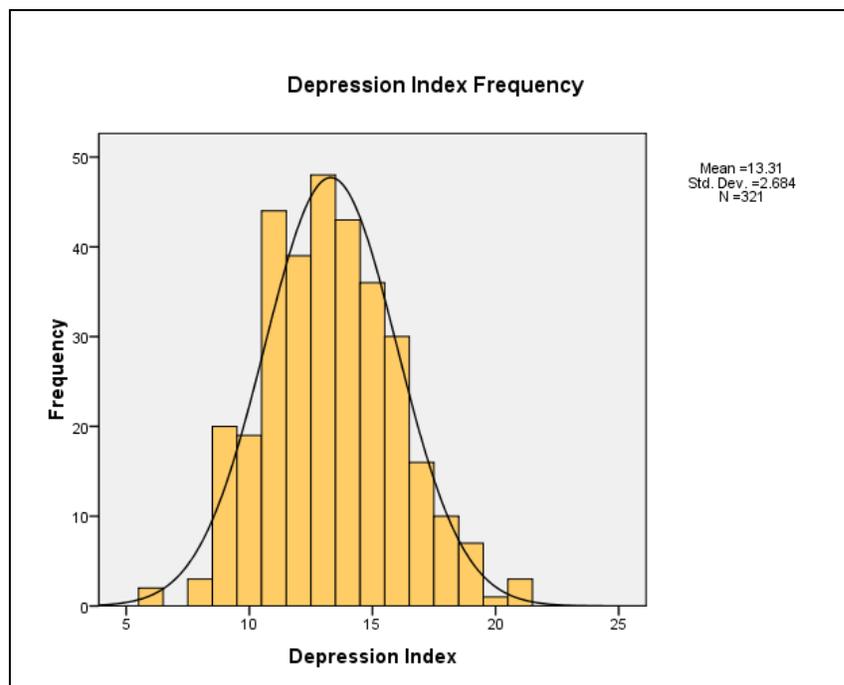
avoided coercion but encouraged participation by e-mail reminders to our sample, campus wide P.O. Box candy reminders, and offering the chance to win one of five \$20 gift cards. We submitted our survey to the St. Olaf Institutional Review Board (IRB) where it was examined and approved according to the federal regulations and the St. Olaf Code of Ethics. We sought type II level of renewal because it involved greater than minimal risk, and we wanted to share our findings with people beyond the campus community. Professor Charles Huff reviewed the impact of our research procedures on St. Olaf students, and ultimately approved our survey. To maintain anonymity, privacy, and confidentiality, St. Olaf's Director of Institutional Research, Susan Canon, formed an e-mail alias comprised of all the selected students using a random sampling computer program. We had no way of accessing the names on the alias. Participant names were not connected to specific responses. Then, an e-mail with a link to the survey on Form Creator was e-mailed to the alias.

## Results

### Descriptive statistics

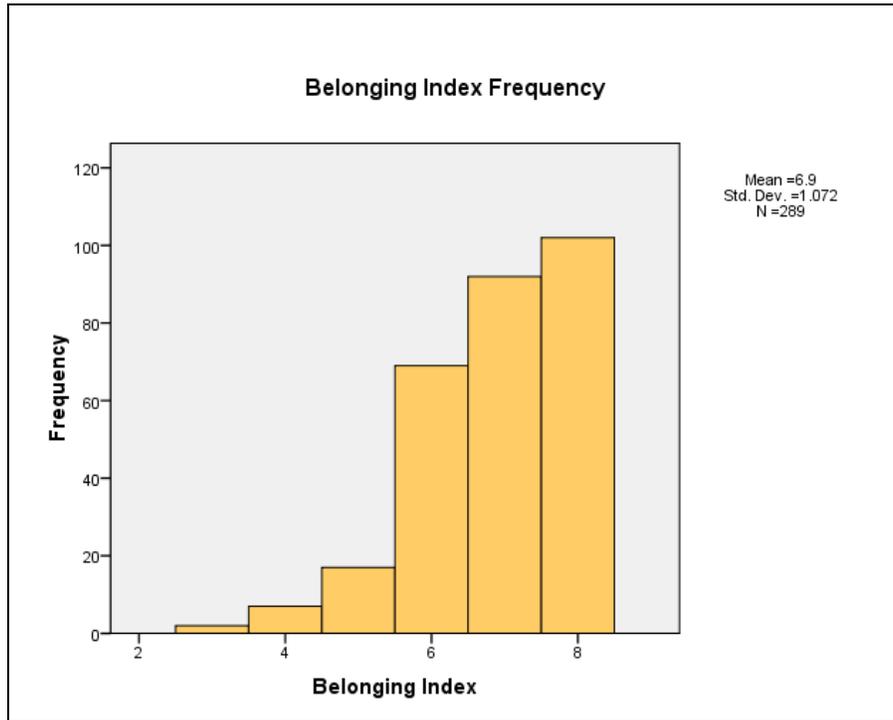
Our depression index that showed the mean depression score (a sum of 6 indicators) was 13.21 with a standard deviation of 2.68 and a range from 6 to 21. Our histogram (Figure 1) revealed a normally distributed curve, which means that skewness (0.231) is less than two times the standard error of skewness (0.136).

**Figure 1**



Our sense of belonging index (a sum of 2 indicators) revealed a means score of 6.9, a standard deviation of 1.07, and a range of 3 to 8. Higher scores on the index reflect a higher sense of belonging. Our histogram (Figure 2) revealed a negative skew, meaning that on average, respondents had high scores on the Sense of Belonging Index.

**Figure 2**



### **Hypotheses 1 & 2: Depression and Hours with Friends**

To test our hypotheses that students with high intensity (Hypothesis 1) and low intensity (Hypothesis 2) will show a higher level of depressive symptoms than the middle category, we used hours with friends as our measure of community involvement intensity. Our dependent variable was the depressive index while our independent variable was hours with friends. We first created three categories of the variable hours with friends: one consisting of the responses greater than one standard deviation from the mean in the positive direction (values = 5-7); one consisting of the responses greater than one standard deviation from the mean in the negative direction (values = 0-1); and the third consisting of the remaining middle 68% (values = 2-4). We ran an ANOVA to compare the means of the three groups of hours with friends (0-1, 2-4, 5-7). We failed to reject our null hypothesis that the means of the three groups were equal at the 0.05 level ( $H_0: \mu_1 = \mu_2$ , p-value 0.530). Students in the three different categories of hours with friends did not differ significantly in their depression index scores.

ANOVA					
Depression Index					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.277	2	4.638	.637	.530
Within Groups	2082.128	286	7.280		
Total	2091.405	288			

### Hypotheses 1 & 2: Depression and Hours of Organized Activities

To test our hypotheses that students with high intensity (Hypothesis 1) and low intensity (Hypothesis 2) will show a higher level of depressive symptoms than the middle category, we used hours of organized activities as our measure of community involvement intensity. Our dependent variable was the depressive index while our independent variable was hours of organized activities. We first created three categories of the variable hours of organized activities: We wanted to see if the mean depression index scores varied by student's hours of organized activities: one consisting of the responses within the bottom 5<sup>th</sup> percentile; one consisting of the responses in the middle 90<sup>th</sup> percentile; and the third consisting of the responses in the top 5<sup>th</sup> percentile. We ran an ANOVA to compare the means of the three groups of hours of organized activities (bottom 5<sup>th</sup> percentile, middle 90<sup>th</sup> percentile, top 5<sup>th</sup> percentile). We failed to reject our null hypothesis that the means of the three groups were equal at the 0.05 level ( $H_0: \mu_1 = \mu_2$ , p-value 0.416). Students in the three different categories of Hours of Organized Activities did not differ significantly in their depression index scores.

ANOVA					
Depression Index					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	12.912	2	6.456	.880	.416
Within Groups	2054.035	280	7.336		
Total	2066.947	282			

### Hypotheses 3 & 4: Depression and Number of Organized Activities

To test our hypotheses that students with high breadth (Hypothesis 3) and low breadth (Hypothesis 4) of community involvement will show a higher level of depressive symptoms than the middle category, we used number of organized activities as our measure of community involvement breadth. Our dependent variable was the depressive index while our independent variable was number of organized activities. We first created three categories of the variable,

number of organized activities: one consisting of the responses greater than one standard deviation from the mean in the positive direction (values = 5-8); one consisting of the responses greater than one standard deviation from the mean in the negative direction (values = 0-1); and the third consisting of the remaining middle 68% (values = 2-4). We ran an analysis of variance (ANOVA) to compare the means of the three groups of number of organized Activities (0-1, 2-4, 5-8). We failed to reject our null hypothesis that the means of the three groups were equal at the 0.05 level ( $H_0: \mu_1 = \mu_2$ , p-value 0.216). Students in the three different categories of number of organized activities did not differ significantly in their depression index scores.

ANOVA					
Depression Index					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	21.678	2	10.839	1.540	.216
Within Groups	2203.572	313	7.040		
Total	2225.250	315			

## Discussion

Surprisingly, our data showed no relationship between either intensity or breadth of community involvement and depressive symptoms. Our analysis of variance (ANOVA) of hypotheses 1 and 2 showed no significant relationship between depressive symptoms and intensity of community involvement. For hypotheses 3 and 4, the ANOVA testing depressive symptoms against breadth of community involvement also revealed no significant relationship. We predicted that St. Olaf students' degree of involvement in the campus community would affect their levels of depression, since we believe students' activities and responsibilities cause so much perceived stress on a regular basis and the St. Olaf community places so much emphasis on involvement and integration.

Is the "Over-involved Ole" a myth? Several factors could contribute to our lack of results. First, our depression index used only 6 items adapted from the 45-item CES-D scale. The items we chose may not be relevant to our population, or we may need to use a more thorough index to fully capture the spirit of the St. Olaf student body. Also, due to social stigmas surrounding depression, respondents may have underreported depressive symptoms because of social acceptability bias, or a desire to seem "fine" or "in control." Another possibility is that respondents have lower rates of depression than the larger population, and that the moderate response rate excluded those members of the population with higher levels of depressive

symptoms. Some respondents failed to complete certain items on our section of the questionnaire, possibly because of the sensitivity of questions about depression and community involvement, or because our questions were part of a larger survey and placed toward the end. Our limited space within that survey limited the depth to which we could explore this relationship.

Some previous studies testing the relationship between depressive symptoms and community involvement focused on junior high and high school students (Falci and McNeely 2009; Randall and Bohnert 2009). The relationships we predicted in our hypotheses may only apply to a younger population, with patterns disappearing as students grow older and enter college. The disappearing effect could result from orientation programs, such as Week One at St. Olaf, which focus on easing the adjustment and improving coping mechanisms for entering college freshmen. Other potential factors include the fact that college counseling centers offer confidential services to individuals who are legal adults, whereas students under the age of 18 cannot take action on healthcare issues without the knowledge and consent of their parents or guardians.

## **Conclusion**

Our study examined the relationship between on-campus community involvement and depressive symptoms; failing to reject our null hypotheses.

Although we found no statistical significance, our research into the relationship between intensity and breadth of community involvement and depressive symptoms is still valuable. Oftentimes, unsubstantiated research is placed in the proverbial “file drawer;” that is, researchers do not adequately report their null findings. We believe that reporting our findings will allow for improvements in future research regarding this topic. Our findings did not support our hypotheses but participants did convey interesting responses, with students reporting high feelings of belonging in the St. Olaf community and low rates of depression. Though these findings did not support our hypotheses, they still are important to our community and future researchers.

Data about the relationship between community involvement and depression would prove useful to the Counseling Center to provide services to students struggling with depression. Student support resources such as the Academic Support Center (ASC) may also benefit from understanding the impact of over- and under-involvement in the St. Olaf community, to promote a healthy level of involvement among students.

Limitations of our survey mainly stemmed from different types of response bias including a moderate rather than high response rate as well as limited survey space. Furthermore, because survey responses rely on respondents self-reporting of socially disapproved issues, under-reporting of depressive symptoms may have affected our data.

Further research should use a more extensive depression scale such as the complete CES-D. To investigate depression and involvement specifically on St. Olaf campus, researchers could collaborate with the administration and the Counseling Center to collect more comprehensive data and use additional resources for testing these factors of life at St. Olaf College. To gather more comprehensive data regarding college students, researchers should conduct studies at institutions of different sizes, types, and locations.

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