# Psychology Research Methods Journal

Volume 1 | Issue 20 Article 12

6-2017

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### **Recommended Citation**

Olson, Katie (2017) "Mental Health and College Students," Psychology Research Methods Journal: Vol. 1: Iss. 20, Article 12.

Available at: https://digitalcommons.lindenwood.edu/psych\_journals/vol1/iss20/12

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### **Mental Health and College Students**

Katie Olson<sup>11</sup>

The present study aims to explore the mental health of college students regarding anxiety, stress, and depression. Pursuing higher education can be difficult and can have a negative impact on your mental health if there is a lack of social support from school, friends, and family. The hypotheses stated that there would be a relationship between the number of hours worked and the symptoms of anxiety, stress, and depression. Another hypothesis stated that there would be a significant positive relationship between the method of payment for school and anxiety, stress, and depression. The present study used a demographic survey and the Depression, Anxiety, and Stress Survey (DASS; Lovibond & Lovibond, 1995) to measure the levels of anxiety, stress, and depression in a sample of college students (n = 87). The descriptive statistics show lower than expect means of the three mental health symptoms measured. A Pearson's correlational analysis revealed no significant relationships between hours worked with anxiety, stress, and depression. An independent samples t test revealed there were no significant relationships between anxiety, stress, depression, and the method of payment. The present study is a strong basis for future research. Larger samples and a more in-depth survey are needed to gain a better understanding of mental health in college students. The purpose of this study was to encourage universities to assess the general mental health of students and to provide more resources to those students struggling with their mental health.

Pursuing higher education can be a very rewarding goal in a person's life, at any age. As it is rewarding, it can be just as difficult to reach this goal. According to the Missouri Department of Mental Health, St. Charles County alone had 27.45-30.15% of students having disruptions in their work, 17.01-20.43% of students feeling very sad, and 9.06-10.99% of students seriously considering suicide in 2016 (Missouri Department of Mental Health, 2016). The stressful and intensive hard work that goes into maintaining grades in school seems to have an impact on a person's mental health. If a person does not have the right tools to form healthy

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coping mechanisms, and substantial outside support, such as family support and resources for mental health, maintaining grades and keeping up with the demands of higher education can have negative effect on mental health.

A study by Hirsch, Rabon, Reynolds, Barton, and Chang (2017) assessed the relationships between mental health stigma, perceived stress, depressive symptoms, and suicidal behavior in college students. Their study used four different self-report measures to assess depressive symptoms, mental health stigma, perceived stress, and suicidal behavior. The Beck Depression Inventory-II was used to assess depressive symptoms, The Mental Health Stigma Scale for mental health stigma, The Perceived Stress Scale for perceived stress, and The Suicidal Behavior Questionnaire – Revised for suicidal behavior (Hirsch et al., 2017). The results revealed that higher levels of stress were related to more depressive symptoms, and suicidal behavior (Hirsch et al., 2017). The results supported previous research, but they took extra steps to assess the influence of mental health stigma, and how it interacts with stress, depression, and suicide. Their findings supported the idea that stress and mental health stigmas affect the presence of depression and suicidal behaviors (Hirsch et al., 2017). Hirsch et al. (2017) results supports the pressing issues of negative mental health in college students and their likelihood to experience depression symptoms and suicidal behaviors when under stress.

Deteriorating mental health can be detrimental to a student's ability to perform and can negatively affect productivity. A study by Grawitch, Waldrop, Erb, Werth, and Guarino (2017) assesses productivity loss in the workplace due to mental illness in two studies. The first study assessed productivity loss related to physical and mental health, work-life balance satisfaction, emotional exhaustion, and work engagement. To look at productivity loss related to mental and physical they used two 4-item scales modified from the Stanford Presenteeism Scale (SPS-6). To measure work-life balance satisfaction they used Valcour's 5-item scale that measures

satisfaction with work-life balance on a Likert-type scale (Grawitch et al., 2017). The Maslach Burnout Inventory (MBI) was used to assess the frequency of emotional exhaustion (Grawitch et al., 2017). Lastly, to assess work engagement, the 9-item Utrecht Work Engagement Scale (UWES-9) was used to assess three underlying factors of work engagement: vigor, dedication, and absorption (Grawitch et al., 2017). The second study assessed some of the same aspects of productivity, life satisfaction, and work engagement, but also added in depression, and turnover intention. To assess depression, The Center for Epidemiologic Studies Depression Scale (CES-D scale) was used. To assess turnover intention, a 4-item measure of turnover intentions was used. The measures used to assess productivity loss and work engagement were the same as the first study, but a different measure was used to assess life satisfaction. The Satisfaction with Life Scale (SWLS), a 5-item measure was used to assess life satisfaction (Grawitch et al., 2017).

Results to the study found that mental health was positively associated with emotional exhaustion, negatively associated with work engagement, negatively associated with satisfaction and work-life balance (Grawitch et al., 2017). Overall, their results suggested that productivity loss due to mental health had more indicative relationship compared to physical health. The results of the study suggested that mental health has an impact on productivity in the workplace. This may not be directly related to college students, but the study relates as it speaks to the aspect of mental health being detrimental to productivity.

A study by Beiter et al. (2014) was conducted to assess the correlates of depression, anxiety, and stress in college students. The study was conducted by self-report measures given to undergraduate students attending Franciscan University, Steubenville, Ohio. The study used the Depression, Stress, and Anxiety Scale (DASS) to assess the participating student's levels of these symptoms (Beiter et al., 2014). The results revealed that 15% reported anxiety, 11% reported stress, and 11% reported feelings of depression (Beiter et al., 2014). The results of the

study indicated that the top causes for concern for students were academics, succeeding, plans after graduation, financial problems, sleep, relationships with friends, and relationships with family, overall health, body image, and self-esteem. The results also showed that upperclassmen scored the highest in depression, anxiety, and stress in comparison to underclassmen (Beiter et al., 2014). Off campus students ranked the highest in levels of stress, anxiety, and depression in comparison to students who live on-campus. The results of their study were indicators that universities should address the mental health needs of students in the same level as they foster professional success (Beiter et al., 2014). This study is a prime example of the implications of pursuing a higher education on mental health in students.

As stated in the previous study, the need for universities to emphasize personal wellbeing as well as professional well-being is a concern. A study done by Cornish et al., (2017) assessed a new model developed in North America for the modern university campus environment. This new stepped care involves a range of online mental health programs as well as dimensions of treatment intensities and student autonomy (Cornish et al., 2017). This study can be used as a great example of how universities can cater to the well-beings of their students in a non-invasive way that allows the student to take things at their own pace and feel a sense of autonomy. This can also help with the mental health stigma, mentioned earlier. The study went into intense detail about how this stepped care model works, the historical background, client perspectives, trainee perspectives, counselor perspectives, and many others. What sets this stepped care apart from the traditional 50 min face-to-face therapy sessions is the variations in intensity of care and the student's autonomy. There are nine steps to this stepped model: walkin consultation, informational online self-help, interactional online self-help, drop-in psychoeducational sessions, therapist assisted e-mental health, intensive group therapy, intensive individual therapy, psychiatric consultation, and case management- referral to tertiary or acute

care (Cornish et al., 2017). These steps allow the student to feel in control of their mental health and allow them to seek help online as well, before committing to face-to-face interventions.

A study by Gilmour (2014) assesses a health survey given to Canadians above the age of 15 classified as having flourishing, moderate, or languishing mental health. This study showed that the majority of Canadians who participated in the survey were flourishing in their mental health. They survey also showed that those classified as languishing in mental health had just over 50% having a mood disorder, a little over 10% having a substance abuse disorder, over 30% having a generalized anxiety disorder, and over 60% having any mental disorder (Gilmour, 2014). Whereas those with a flourishing mental health were all below 10% in the same topics (Gilmour, 2014). The estimates of a Canadians over 15 years old having 'complete mental health' were much higher than the estimates reported in American Studies. An estimate of 72.5% of Canadians fir the criteria to be considered having positive mental health, where only 32.7% of adults, 37.9% of adolescents, and 49.3% and 60.7% of college students had complete mental health (Gilmour, 2014). This study brings up potential questions for future studies concerning the differences in mental health in Canada and the United States. This could also be applied to the studies of mental health in college students.

I am interested to know what the frequency of depression, anxiety, and stress symptoms are in college students. The purpose of the present study is to explore these symptoms in college students and use this information to evaluate the kind of mental health services should be provided and encouraged by universities. I designed a survey featuring the Depression, Anxiety, and Stress Survey (DASS; Lovibond & Lovibond, 1995) to record the prevalence of these symptoms in college students. I predict there would be a relationship between working while in school with higher rates of these symptoms, as well as a relationships with these symptoms with the general method of paying for school.

#### Method

### **Participants**

The participants in the study were recruited through the Lindenwood Participant Pool (LPP) and through Facebook. Participants recruited through the LPP were compensated with one extra credit point. Participants recruited through Facebook received no compensation. There was a total of 87 participants. For the gender of the participants, 20% were male, 78.8% female, and 1.2% indicated transgender or other. The participants included 76.47% White/ Caucasians, 9.41% Hispanic/Latinos, 8.24% Black/African Americans, 3.53% Asian/Pacific Islanders, and 2.35% indicating another ethnicity not listed in the study. The class standing of the participants were as follows: freshman 23.5%, sophomore 22.4%, junior 21.2%, senior 24.7%, graduate 3.5%, and other 4.7%. Students participating were also asked if they had a job outside of school,

61.18% of them indicated he or she was employed outside of school.

### **Materials and Procedure**

The materials used for this study included Qualtrics, a survey platform for online creation and administration. Qualtrics was used to administer and create the survey. The Depression, Anxiety, and Stress Survey (DASS; Lovibond & Lovibond, 1995) was administered in this study to assess the level of mental health (see Appendix A). Facebook was used to recruit college students outside of Lindenwood University. The setting of the study was online. The participants were able to access the survey on campus, or elsewhere where a computer with access to internet was available. The survey was available for x days/months. The participants first read over the informed consent statement. Next, the participants answer all the demographic questions. Once all submissions were completed the DASS scoring key was used to assess the participants' levels of mental health considering depression, anxiety, and stress. Once the full survey was

completed, the participants were presented with a feedback statement debriefing them in regards to the survey and providing mental health support resources.

### **Results Descriptive Statistics**

Descriptive statistics were run for the present study. Using the DASS (Lovibond & Lovibond, 1995), anxiety, depression, and stress were all measured (Anxiety M = 9.23, SD = 8.61; Stress M = 13.18, SD = 9.89; Depression M = 8.77, SD = 9.80). Participants were asked to choose from a list of options to indicate how they pay for school. The most common form of payment was student loans with 44.6%. Having parents or a family member pay for school was the second most prevalent with 34.9%. Lastly, scholarships to pay for school was third, with 16.9%, and only 3.6% indicated they pay out of pocket.

### Pearson's r Correlation

A Pearson's correlation analysis was run to compare how many hours worked a week with the symptoms of anxiety, stress, and depression. There was a weak negative relationships between hours worked and anxiety (r = -.088, p = 0.269). The relationship between hours worked and stress was also negative and weak (r = -.114, p = 0.214). There was a positive relationship found between hours worked and depression, but this was considered weak (r = 0.095, p = 0.254). The relationships between the symptoms of anxiety, stress and depression were also analyzed. There was a positive and strong relationships between anxiety and stress (r = 0.095, p = 0.254). There was a positive and strong relationships between anxiety and stress (r = 0.095).

.827, p = .000). There was also a positive and strong relationship between anxiety and depression (r = .707, p = .000). There was a positive and strong relationships found between stress and depression as well (r = .736, p = .000).

### **Independent Samples t-test**

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To assess the methods of payment with anxiety, stress, and depression an independent samples t test was run. The participants who indicated that they paid out of pocket for their school and those who indicated the use of scholarships were omitted from the data. The sample size for scholarships (n = 14) was too small to make a meaningful comparison, as well as for out of pocket (n = 3). The descriptive statistics for method of payment and anxiety, stress, and depression are shown in Table 1.

Table 1

		Student Loans	Parent / Family	Scholarships	Self-pay
M = 10.72 $M = 8.79$ $M = 8.79$ $M = 1.00$ Anxiety $SD = 9.16$ $SD = 9.16$ $SD = 1.73$ $SD = 7.72$ $M = 14.83$ $M = 13.55$ $M = 13.55$ $M = 1.66$ Stress $SD = 10.94$ $SD = 10.94$ $SD = 2.88$ $SD = 8.59$ $M = 8.55$ $M = 8.55$ $M = 1.00$ Depression $SD = 8.90$ $SD = 8.90$ $SD = 1.73$			(n = 29)	(n = 14)	(n = 3)
Anxiety $SD = 9.16$ $SD = 9.16$ $SD = 1.73$ $SD = 7.72$ $M = 14.83$ $M = 13.55$ $M = 13.55$ $M = 1.66$ $SD = 8.59$ $M = 9.05$ $M = 8.55$ $M = 8.55$ $M = 1.00$		(n = 37)			
SD = 7.72 $M = 14.83$ $Stress$ $SD = 10.94$ $SD = 10.94$ $SD = 10.94$ $SD = 10.94$ $M = 8.55$ $M = 1.66$ $SD = 10.94$ $SD = 2.88$ $M = 9.05$ $M = 8.55$ $M = 8.55$ $M = 1.00$ $Depression$ $SD = 8.90$ $SD = 8.90$ $SD = 1.73$		M = 10.72	M = 8.79	M = 8.79	M = 1.00
M = 14.83 $M = 13.55$ $SD = 10.94$ $M = 13.55$ $M = 13.55$ $M = 13.66$ $SD = 10.94$ $SD = 10.94$ $M = 8.55$ $M = 8.55$ $M = 1.00$ $Depression$ $SD = 8.90$ $SD = 8.90$ $SD = 1.73$	Anxiety		SD = 9.16	SD = 9.16	SD = 1.73
Stress $M = 13.55$ $M = 13.55$ $M = 1.66$ $SD = 10.94$ $SD = 10.94$ $SD = 2.88$ $SD = 8.59$ $M = 8.55$ $M = 8.55$ $M = 1.00$ $M = 8.55$ $M = 1.00$ $M = 8.50$ $M = 8.50$ $M = 1.00$ $M = 8.50$ $M = 1.73$		SD = 7.72			
SD = 10.94 $SD = 10.94$ $SD = 2.88$ $SD = 8.59$ $M = 8.55$ $M = 8.55$ $M = 1.00$ $SD = 8.90$ $SD = 8.90$ $SD = 1.73$	C4	M = 14.83	M = 13.55	M = 13.55	M = 1.66
Depression $SD = 8.90$ $SD = 8.90$ $SD = 1.73$	Stress	SD = 8.59	SD = 10.94	SD = 10.94	SD = 2.88
•		M = 9.05	M = 8.55	M = 8.55	M = 1.00
SD =9.68	Depression		SD = 8.90	SD = 8.90	SD = 1.73
		SD =9.68			

<sup>\*</sup>M = mean, SD = standard deviation

There were no statistically significant differences in the methods of payment (student loans and parent / family) and the three measures of mental health (Anxiety t (64) = .931, p = .355; Stress t (64) = .535, p = .595; Depression t (64) = .217, p = .829).

### Discussion

The results of the study did not support the hypothesis concerning the mental health of college students. Some limitations were the time frame allowed for data collection, as well as limited sample representation. Data collection began on March 9, 2018 and ended April 20, 2018. This only allowed for 87 participants, all from the surrounding area of St. Charles, Missouri. The data may have been much more statistically significant if there were more time allowed to collect data, as well as more broad area of data collection. A study by Hirsch et al. (2017) found that greater stress was related to more depressive symptoms and suicidal behaviors. This was not reflected in the present study. Grawitch et al. (2017) found mental health was positively associated with emotional exhaustion, negatively associated with work engagement, negatively associated with satisfaction and work-life balance. This was also not reflected in the data of the present study. The literature reviewed were studies done on a much greater and broad level, with much more time to research, collect data, and as well as having more resources available to them. I predicted that the results of the present study would be like the statistics gathered from Missouri Department of Mental Health for St. Charles County. The Missouri Department of Mental Health (2016) stated that St. Charles County alone had 27.45-30.15% of students having disruptions in their work, 17.01-20.43% of students feeling very sad, and

9.06-10.99% of students seriously considering suicide in 2016. These numbers were much higher than the results of the present study. This could be due to the discussed limitations.

The results from the Pearson's correlation analysis were surprising. There were no significant relationships between hours worked and any of the symptoms. The relationships between hours worked, anxiety and stress were negative and weak (Anxiety r = -.088, p = 0.269;

Stress r = -.114, p = 0.214). There was a positive relationship between hours worked and depression, but this was a weak correlation (r = 0.095, p = 0.254). I infer that these results can be attributed to the idea that someone who cannot handle working a job as well as going to school would most likely not choose to do so. I did not ask whether the participants were full-time students in the demographic survey, this could also contribute to the lack of statistical significance. Many of the participants could have been going to school part-time, meaning there might be less stress being perceived. In a future study I would like to ask about how many credit hours a student is taking that semester, as well as what forms of social support they actively participate in, such as therapy, talking with friends, or seeking help from family. These questions would give a better idea of how students deal with anxiety, stress, and depression while in school.

The results of the independent t test were also not in support of my hypotheses. There were no significant differences in the scores of anxiety, stress, and depression in relation to how someone paid for school. Some limitations to these results are that there were very few participants who indicated that they paid for school out of pocket (n = 3) and through scholarships (n = 14), so this data was omitted before running the test. These small numbers would not allow for any significant comparisons due to unequal sample size. The descriptive statistics for paying for school out of pocket were low as well (Anxiety M = 1.00, SD = 1.73; Stress M = 1.66, SD = 2.88; Depression M = 1.00, SD = 1.73). Even with a small sample size, these are surprisingly low numbers. An explanation for this is that someone who is paying out of pocket for classes is not likely to be going full-time. This is another reason I would like to ask about full-time or part-time status in future research. Another limitation to the results of the independent samples t test relates to the two modes of payment I focused on, student loans and parent / family member. I hypothesized that someone with student loans would have higher

anxiety, stress, and depression. Student loans typically do not have to be paid back until six months after graduation. This contributes to the results of the data being insignificant because it may not be an immediate stressor. I also hypothesized that having a parent or family member pay for school would result in the student having much lower rates of anxiety, stress and depression. This was not statistically supported from the test.

More research is needed to provide more evidence that the current mental health status of college students is less than acceptable. Using a different survey other than the DASS would provide a better understanding of a student's mental health status. In future research I would like to use a survey that allows for more descript and specific indications of mental health. Using a survey that measures levels of anxiety, stress, and depression as well as allowing for the participant to describe their coping mechanisms would provide a better understanding. The present study is a strong base for more research to be conducted with more significant testing, as well encouraging universities across the United States to provide better support to their students who are struggling to maintain their mental health.

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### Appendix A

Mental Health and College Students Survey

# **Mental Health and College Students**

Q1 Survey Research Information Sheet You are being asked to participate in a survey conducted by Katie Olson, under supervision of Michiko Nohara-Leclair, at Lindenwood University. We are doing this study to assess the symptoms of mental health in college students. You will be presented with demographic questions then an assessment measuring symptoms of depression, anxiety, and stress. It will take about

20-30 minutes to complete this survey. Your participation is voluntary. You may choose not to participate or withdraw at any time by simply not completing the survey or closing the browser window. There are no risks from participating in this project. We will not collect any information that may identify you. There are no direct benefits for you participating in this study. If you are in the LPP you will receive one extra credit point in the course for which you signed up for the LPP. You will receive extra credit simply for completing this information sheet. You are free to withdraw your participation at any time without penalty. Participants who are not part of the LPP will receive no compensation beyond the possible benefits listed above. However, your participation is an opportunity to contribute to psychological science.

WHO CAN I CONTACT WITH QUESTIONS?

If you have concerns or complaints about this project, please use the following contact information:

Katie Olson kmo956@lindenwood.edu

Michiko Nohara-LeClair mnohara-leclair@lindenwood.edu

If you have questions about your rights as a participant or concerns about the project and wish to talk to someone outside the research team, you can contact Michael Leary (Director - Institutional Review Board) at 636-949-4730 or mleary@lindenwood.edu.

By clicking the link below, I confirm that I have read this form and decided that I will participate in the project described above. I understand the purpose of the study, what I will be required to do, and the risks involved. I understand that I can discontinue participation at any time by closing the survey browser. My consent also indicates that I am at least 18 years of age.

You can withdraw from this study at any time by simply closing the browser window. Please feel free to print a copy of this information sheet. By clicking the link below, I confirm that I have read this form and decided that I will participate in the project described above. I understand the purpose of the study, what I will be required to do, and the risks involved. I understand that I can discontinue participation at any time by simply not completing the survey. My consent also indicates that I am at least 18 years of age, or that I have parental consent on file with the Lindenwood Participant Pool. You can withdraw from this study at any time by simply closing the browser window. Please feel free to print a copy of this information sheet.

- $\circ$  Agree (1)
- Disagree (2)

Skip To: End of Survey If Q1 = Disagree
Q2 What is your age?
Q3 What is your class standing?  o Freshman (1)
o Sophomore (2)
<ul><li>Junior (3)</li><li>Senior (4)</li></ul>
o Graduate (5)
o Other (6)
Q4 Please choose appropriate gender.  o Male (1)
o Female (2)
<ul><li>Other (e.g. Transgender, etc) (3)</li><li>Prefer not to answer (4)</li></ul>
o Prefer not to answer (4)
Q5 What is your
ethnicity/race? White/Cauc
asian (1)
o Hispanic/Latino (2)
o Black/African American (3)
<ul><li>Asian/Pacific Islander (4)</li><li>Native American (5)</li></ul>
o Other (6)

Q6 Do	you work a	a job	outside	of	school?
-------	------------	-------	---------	----	---------

- o Yes (1)
- o No (2)

### Skip To: Q8 If Q6 = No

### Q7 How many hours do you work a week?

o Hours: (1) \_\_\_\_\_

Q8 What is the primary way of paying for school?

- o Student Loans (1)
- o Self-Pay out of pocket (2)
- o Parents/Family member (3)
- o Scholarships (4)

### Q11

- 1. Did not apply to me at all
- 1. Appied to me to some degree, or some of the time
- 2. Applied to me to a considerable degree, or a good part of the time
- 3. Appled to me very much, or most of the time

	•			
	0 (1)	1 (2)	2 (3)	3 (4)
1) I found myself getting upset by				
quite trivial things	0	$\bigcirc$	$\circ$	$\bigcirc$
(1)				

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<ul><li>2) I was aware of dryness of my mouth (2)</li><li>3) I couldnt seem to</li></ul>	0	$\circ$	$\circ$	0
experience any positive feeling at	0	$\bigcirc$	$\bigcirc$	$\circ$
all (3) 4) I experienced breathing difficulty				
(eg. excessive rapid breathing,				
breathlessness in the absence of	$\circ$	$\circ$	$\circ$	0
physical exertion)				
(4) 5) I just couldn't seem to get going	0	0	0	0
(5) 6) I tend to over-react to situations (6)	$\circ$	$\circ$	$\circ$	$\circ$
7) I had a feeling of shakiness (eg. legs were going to give way) (7)	0	0	0	0
8) I found it difficult to relax (8)	$\circ$	$\bigcirc$	$\bigcirc$	$\bigcirc$
9) I found myself in situations that				
made me so	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
anxious I was most				
relieved when they ended (9) 10) I felt that I had nothing to look	0	0	0	0
forward to (10)				

### Q14

- 1. Did not apply to me at all
- 1. Appled to me to some degree, or some of the time
- 2. Applied to me to a considerable degree, or a good part of the time
- 3. Appled to me very much, or most of the time

	0 (1)	1 (2)	2 (3)	3 (4)
11) I found myself getting upset rather easily (1)	0	0	0	0
12) I felt that I was using a lot of nervous enegry (2)	0	$\circ$	$\circ$	0
13) I felt sad and depressed (3)	$\circ$	$\bigcirc$	$\bigcirc$	$\bigcirc$
14) I found myself getting impatient				
when I was delayed in any way (eg. elevators, traffic	0	0	$\circ$	0
lights, being kept waiting) (4) 15) I had a feeling of faintness (5)	0	0	$\circ$	$\circ$
16) I felt that I had lost interest in just				
about everything	O	O	O	0
(6) 17) I felt I wasnt worth much as a person (7)	0	0	$\circ$	0
18) I felt that I was rather touchy (8)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$

19) I perspired noticeably (eg.				
hands sweaty) in				
the absence of high temperatures or	0	$\bigcirc$	$\circ$	$\circ$
physical exertion				
(9) 20) I felt scared without any good reason (10)	0	0	$\circ$	$\circ$

### Q15

- 1. Did not apply to me at all
- 1. Applied to me to some degree, or some of the time
- 2. Applied to me to a considerable degree, or a good part of the time
- 3. Appled to me very much, or most of the time

	0 (1)	1 (2)	2 (3)	3 (4)
21) I felt that life				
wasn't worth while	0	$\circ$	$\circ$	0
(1)				
22) I found it hard to wind down (2)	0	$\bigcirc$	$\circ$	$\circ$
23) I had difficulty in swalowing (3)	0	$\bigcirc$	$\circ$	$\circ$
24) I couldn't seem to get enjoyment	0	$\circ$	0	$\circ$
out of anything I did (4)				

25) I was aware of the action of my heart in the				
absence of physical				
exertion (eg. sense of heart rate		O	O	O
increase, heart missing a beat) (5) 26) I felt	0	0	0	0
down-hearted and				
blue (6) 27) I found that I was very irritible	0	0	0	$\circ$
(7) 28) I felt I was close to panic (8)	0	$\circ$	0	$\circ$
29) I found it hard to calm down after	0	0	0	$\circ$
something upset me (9)				-
30) I feared that I would be "thrown" by some trivial but unfamiliar task	0	0	0	0

### Q16

- 1. Did not apply to me at all
- 1. Appied to me to some degree, or some of the time
- 2. Applied to me to a considerable degree, or a good part of the time
- 3. Appled to me very much, or most of the time

	0 (1)	1 (2)	2 (3)	3 (4)
31) I was unable to become	0	$\bigcirc$	$\bigcirc$	$\circ$
enthusiastic about anything (1) 32) I found it difficult to tolerate interruptions to				
what I was diong	0	$\bigcirc$	$\bigcirc$	0
(2) 33) I was in a state of nervous tension	0	0	0	0
(3) 34) I felt pretty	0	0	0	0
worthless (4) 35) I was intolerant of				
anything that kept	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
me from getting on with that I was doing (5) 36) I felt terrified				
(6)	0	0	$\circ$	0
37) I could see nothing in the future to be hopeful	0	0	0	0
about (7) 38) I felt that life was meaningless	0	0	0	0
(8) 39) I found myself getting agitated (9)	0	0	0	0

40) I was worried about situations in				
which I might panic	$\circ$	$\bigcirc$	$\bigcirc$	0
and make a fool of myself (10) 41) I experienced trembling (eg. in the hands) (11)	0	0	0	0

### Q17 Feedback Letter:

Thank you for taking the time to complete this survey. The primary purpose of this study was to assess the mental health of college students. Mental health may be a sensitive subject, but I find the growing problem to be important for colleges and universities to assess. I hope this study will help colleges and universities recognize the need for more accessible mental health services for students. Although I cannot provide you with individual findings due to the fact that this survey was conducted anonymously, I would be happy to answer any questions you may have about this study. I have also provided a few mental health resources for your contact. Please feel free to contact me using the information below. Thank you again for contributing data to my project!

Mental Health Resources: Student Counseling at the Wellness Center at Lindenwood (Evans 3rd Floor) (636) 949-4522National Suicide Prevention Hotline 1-800-273-8255Missouri Department of Mental Health (https://dmh.mo.gov/)Behavioral Health Response Hotline 1-800-811-4760

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## Appendix B

### **DASS Scoring Guide**

Stress:

1, 6, 8, 11, 12, 14, 18, 22, 27, 29, 32, 33, 35, 39

Depression:

3, 5, 10, 13, 16, 17, 21, 24, 26, 31, 34, 37, 38, 42

Anxiety:

2, 4, 7, 9, 15, 19, 20, 23, 25, 28, 30, 36, 40, 41

Add up scores for each question.