

SERU COVID-19 SURVEY

Undergraduates' Mental Health During the Pandemic: New Insights into Links with Financial Hardships, Academic Obstacles, and Support

Krista M. Soria, Bonnie Horgos, & Kevin Luu

The COVID-19 pandemic has looming negative impacts on the mental health of undergraduate students at research universities. According to the Student Experience in the Research University (SERU) survey of 31,048 undergraduate students conducted in May-July 2020 at nine public research universities, **35% of undergraduates screened positive for major depressive disorder and 39% screened positive for generalized anxiety disorder.**

We [previously reported](#) about the demographic disparities in students' mental health disorders during the pandemic. In this brief, we highlight other factors during the pandemic that may compromise students' mental health. Students who experienced financial hardships, including unexpected increases in spending for technology or living expenses, the loss or wages from on-campus or off-campus employment, the loss or cancellation of an expected job or internship, and food and housing insecurity had significantly higher rates of screening positive for symptoms of generalized anxiety disorder and major depressive disorder compared to students who did not experience financial hardships.

Furthermore, students who experienced academic obstacles in the transition to online instruction had significantly higher rates of screening positive for symptoms of generalized anxiety disorder and major depressive disorder compared to their peers who did not experience those academic obstacles. Students who felt more supported by their institutions during the pandemic had lower rates of screening positive for generalized anxiety disorder and major depressive disorder compared to their peers who did not feel supported by their institutions.

Mental Health Screeners

We used the Patient Health Questionnaire-2 (PHQ-2) two-item scale to screen for major depressive disorder symptoms (Kroenke et al., 2003) and Generalized Anxiety Disorder-2 (GAD-2) two-item scale to screen students for generalized anxiety disorder symptoms (Kroenke et al., 2007). The PHQ-2 asks two questions about the frequency of depressed mood and anhedonia over the past two weeks while the GAD-2 asks two questions about the frequency of anxiety over the past two weeks. Each question is scaled from 0 (not at all) to 3 (nearly every day). The responses to two questions in each scale are summed and, if the score for PHQ-2 ≥ 3 (out of 6), major depressive disorder is likely. If the score for GAD-2 is ≥ 3 (out of 6), generalized anxiety disorder is likely.

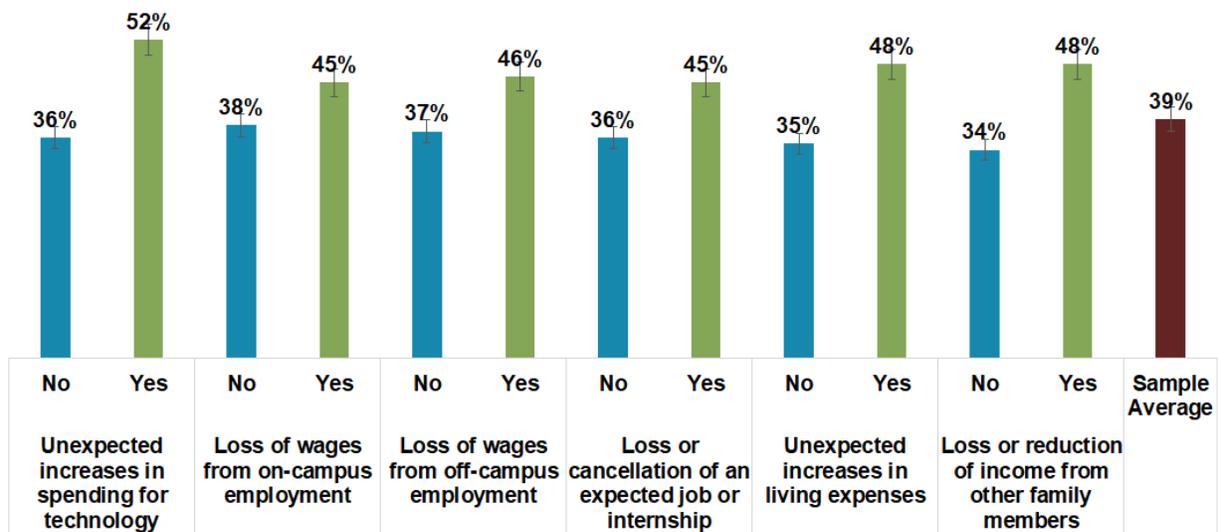
Financial Hardships

In the SERU COVID-19 survey, we asked undergraduate students “Which of the following financial hardships, if any, have you experienced during the COVID-19 pandemic?” Students could respond either “yes” or “no” regarding whether they experienced the financial hardship.

The results suggest that students who experienced unexpected increases in spending for technology, the loss or wages from on-campus or off-campus employment, the loss or cancellation of an expected job or internship, and unexpected increases in living expenses had significantly ($p < .05$) higher rates of screening positive for generalized anxiety disorder compared to their peers who did not experience those financial hardships (Figure 1).

Figure 1

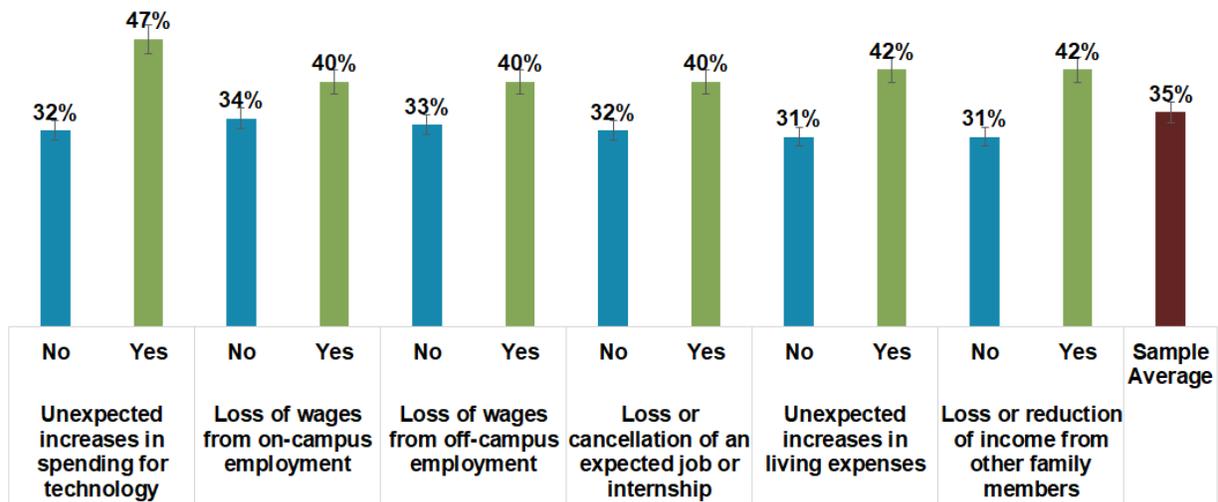
Students Who Screened Positive for Generalized Anxiety Disorder, by Financial Hardship (n = 31,048)



Furthermore, the results suggest that students who experienced unexpected increases in spending for technology, the loss or wages from on-campus or off-campus employment, the loss or cancellation of an expected job or internship, and unexpected increases in living expenses had significantly ($p < .05$) higher rates of screening positive for major depressive disorder compared to their peers who did not experience those financial hardships (Figure 2).

Figure 2

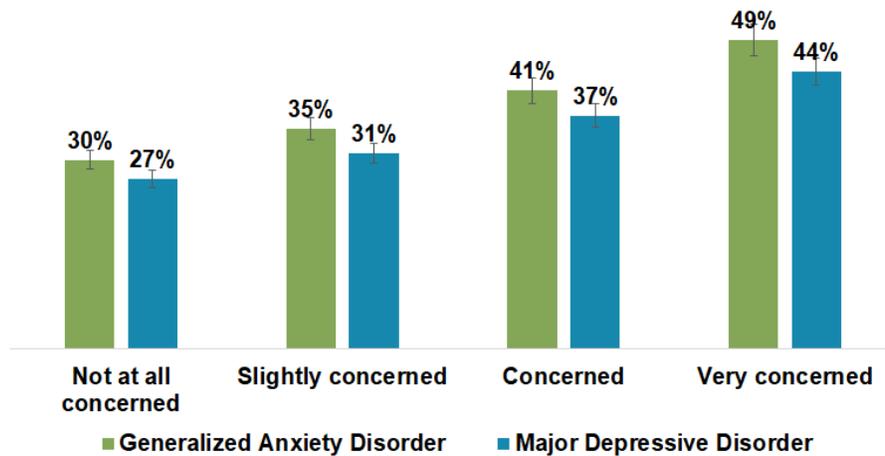
Students Who Screened Positive for Major Depressive Disorder, by Financial Hardship (n = 31,048)



We also asked students how concerned they are about paying for their tuition in fall 2020. The results suggest that students with higher concerns about paying for tuition had higher rates of generalized anxiety disorder and major depressive disorder (Figure 3).

Figure 3

Students Who Screened Positive for Generalized Anxiety Disorder or Major Depressive Disorder, by Financial Concerns (n = 31,048)



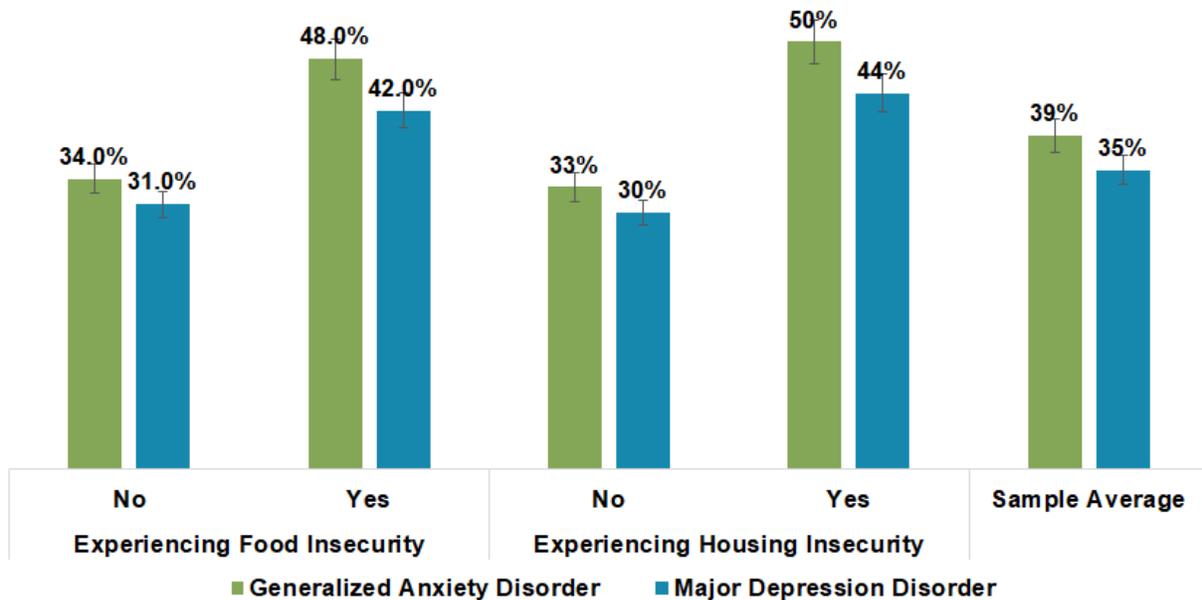
We used a two-item food screen to identify students' food insecurity (Hager et al., 2010). We asked students how often they were worried whether their food would run out before they got money to buy more and how often the food that they bought didn't last, and they didn't have money to get more. A response of "often true" or "sometimes true" to either statement indicates a positive screen for food insecurity.

We also developed a two-item screen to identify students' housing insecurity. We asked students how often they were worried they would not have enough money to cover the cost of their housing and how often they were unable to pay all of the costs of their housing on time. A response of "often true" or "sometimes true" to either statement indicates a positive screen for housing insecurity.

The results suggest that students who experienced both food and housing insecurity experienced significantly ($p < .05$) higher rates of screening positive for generalized anxiety disorder and major depressive disorder compared to their peers who did not experience food or housing insecurity (Figure 4).

Figure 4

Students Who Screened Positive for Generalized Anxiety Disorder and Major Depressive Disorder, by Food and Housing Insecurity (n = 31,048)



Academic Obstacles

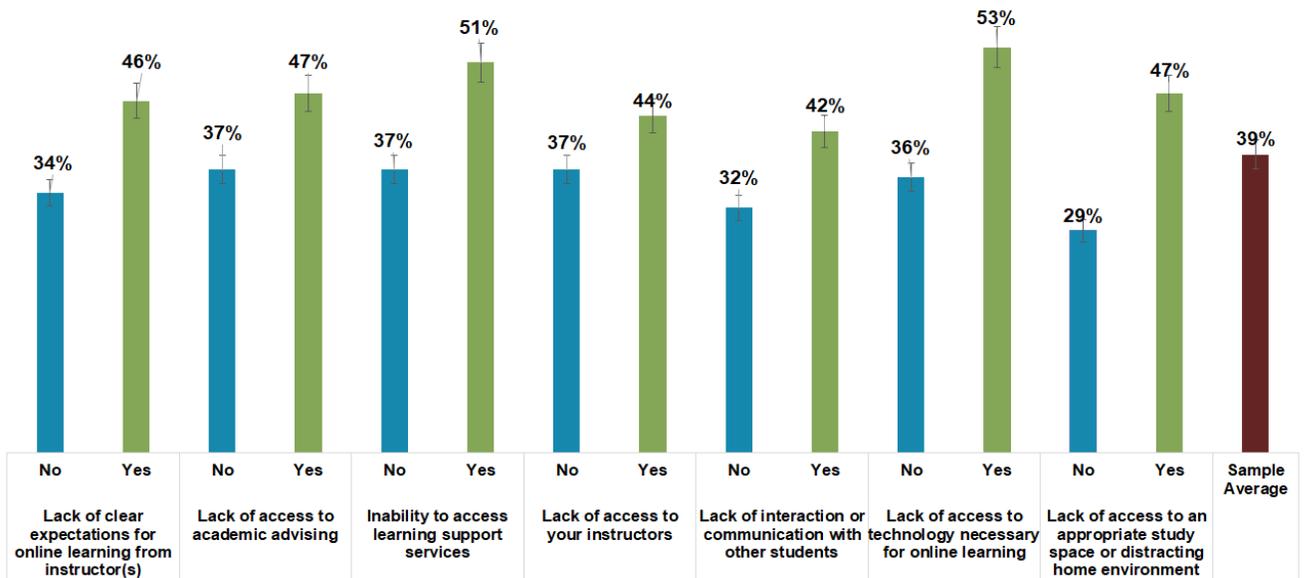
In the SERU COVID-19 survey, we asked undergraduate students “Which of the following academic factors, if any, were an obstacle to your successful transition to online learning during the COVID-19 pandemic?” Students could respond either “yes” or “no” regarding whether they experienced the obstacles. Below, we report the results for some of the items in which we observed the greatest differences between students.

By and large, students who experienced obstacles in their transition to online learning were significantly ($p < .05$) more likely to screen positive for generalized anxiety disorder compared to their peers (Figure 5). The biggest gap was between students who lacked access to an appropriate study space and those who had appropriate study spaces: 47% of students who lacked access to an appropriate study space screened positive for generalized anxiety disorder compared to 29% of students who did not lack access to an appropriate study space.

Additionally, there is another sizable gap between students who did and did not lack access to technology necessary for online learning: over half (53%) of students who lacked access to technology for online learning screened positive for generalized anxiety disorder compared to 36% of students who did not lack such technology.

Figure 5

Students Who Screened Positive for Generalized Anxiety Disorder, by Academic Obstacle (n = 31,048)

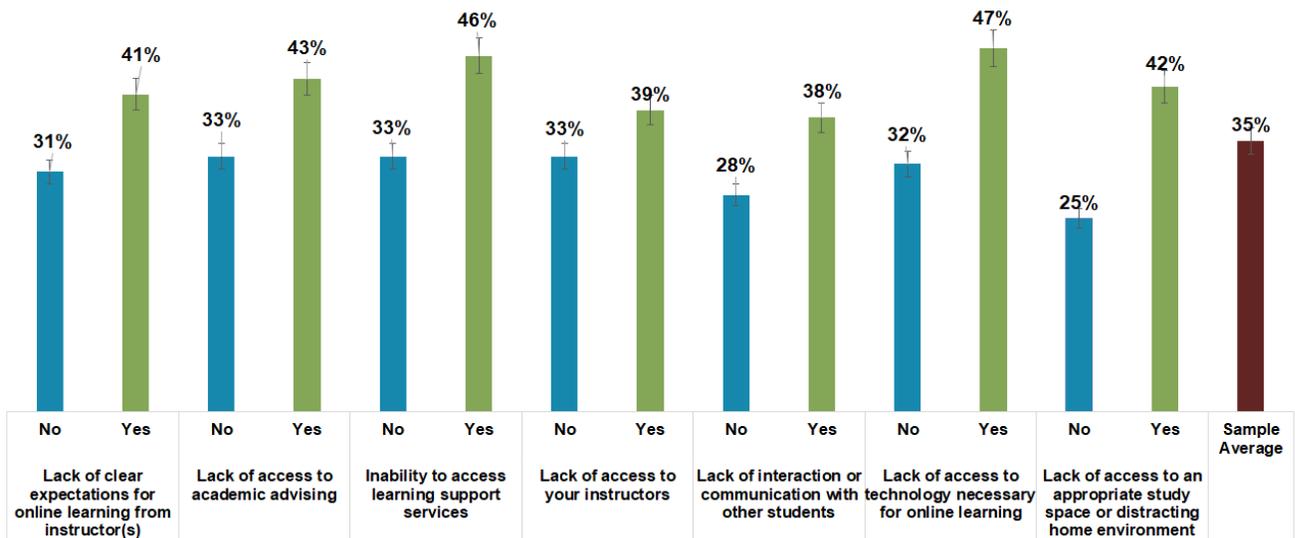


Similarly, students who experienced obstacles in their transition to online learning were significantly ($p < .05$) more likely to screen positive for major depressive disorder compared to their peers (Figure 6). The biggest gap in rates of major depressive disorder was between students who lacked access to an appropriate study space and those who had appropriate study spaces: 42% of students who lacked access to an appropriate study space screened positive for major depressive disorder compared to 25% of students who did not lack access to an appropriate study space.

Additionally, the other large gap between students was in relation to whether they lacked access to technology necessary for online learning: close to half (47%) of students who lacked access to technology necessary for online learning screened positive for major depressive disorder compared to 32% of students who did not lack technology.

Figure 6

Students Who Screened Positive for Major Depressive Disorder, by Academic Obstacle (n = 31,048)

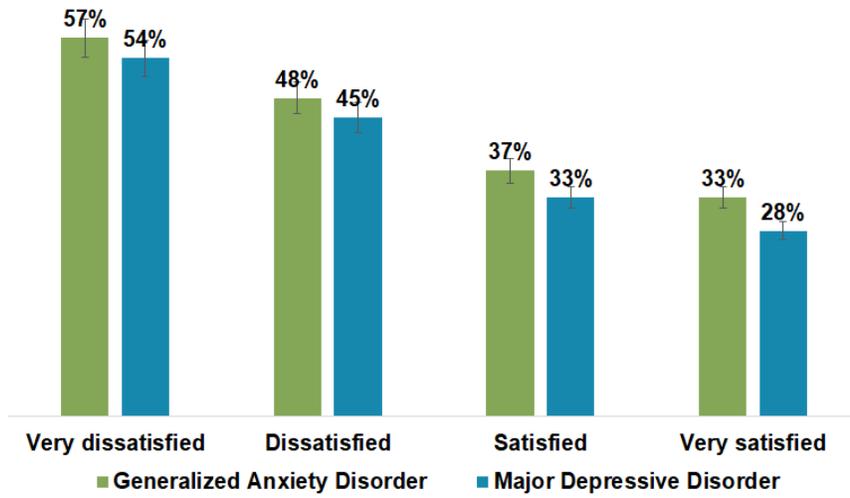


Belonging & Support

We asked students how satisfied they were with the support they received from instructors to successfully learn online. Students who were more satisfied with instructors' support had lower rates of screening positive for generalized anxiety disorder and major depressive disorder compared to students who were more dissatisfied with instructors' support (Figure 7).

Figure 7

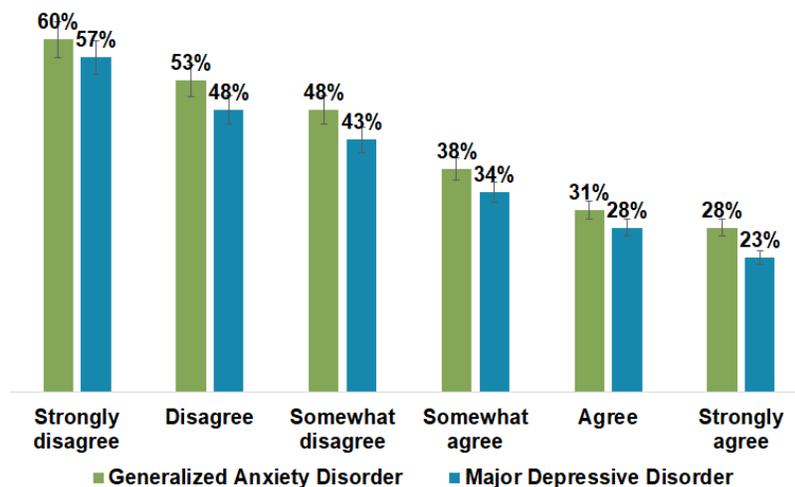
Students Who Screened Positive for Generalized Anxiety Disorder and Major Depressive Disorder, by Satisfaction with Instructors' Support to Successfully Learn Online (n = 31,048)



We asked students to rate their agreement about whether their university supported them during the pandemic. Students who were more likely to agree that their university supported them during the pandemic had lower rates of screening positive for generalized anxiety disorder and major depressive disorder (Figure 8).

Figure 8

Students Who Screened Positive for Generalized Anxiety Disorder and Major Depressive Disorder, by Students' Rating of their University Support During the Pandemic (n = 31,048)



Conclusions & Recommendations

The results of our study suggest that the COVID-19 pandemic has significantly impacted the mental health of undergraduate students at research universities. Specifically, it appears as though approximately one-third and two-fifths of undergraduate students screened positive for symptoms of major depressive disorder and generalized anxiety disorder, respectively. Below, we have outlined our recommendations across major thematic areas.

Increase and promote mental health resources

Our research has found that the COVID-19 pandemic has had a significant impact on students' mental health; for more information, read our policy brief [Undergraduate and Graduate Students' Mental Health During the COVID-19 Pandemic](#). Unfortunately, the pandemic has directly impacted students' abilities to access mental health resources, such as initial barriers to telecounseling services for students who relocated to a different state during the pandemic.

We recommend that institutions continue to proactively invest in expanding virtual mental health resources, such as telecounseling and teletherapy. Additionally, campuses should increase communications with students to ensure awareness of mental health resources. We recommend that institutions regularly share existing services via email, social media, or text message. We also recommend that administrators work to reduce barriers by offering appointments at various times of the day and increasing counseling staff to reduce waitlists.

Staff and faculty can also play a significant role in promoting these resources; we recommend that faculty embed mental health modules in their learning management software programs, provide contact information for mental health resources in their syllabi, and frequently email students to share information about how to access mental health services on campus. Finally, colleges and universities should regularly share and promote existing resources with students to increase awareness.

Reduce barriers to housing, food, and financial support

Our research suggests that undergraduate students presenting with symptoms of anxiety or depression were more likely to experience financial hardships such as increases in spending for technology, the loss or wages from on-campus or off-campus employment, the loss or cancellation of an expected job or internship, and unexpected increases in living expenses. Additionally, these students were more likely to experience difficulties affording housing and food.

To address these issues, we recommend that institutions provide additional support in helping students to find safe and secure housing, such as by providing emergency housing services, including temporary housing options in local apartments or hotels. In addition, campuses should readily communicate additional housing-related resources to assist students. For instance, colleges and universities can partner with off-campus resources to help students navigate housing issues, such as evictions or inflexible landlords.

In addition, we suggest that institutions reduce food insecurity by expanding nutritional support services and food pantries. These services should offer socially distanced pickup options for students in accessible locations that students may frequently attend. We also recommend that

institutions partner with local organizations addressing food insecurities to ensure these students are receiving adequate support.

Increase academic support

Students who endorsed symptoms of anxiety or depression experienced more obstacles in their transition to online learning than students who did not experience symptoms of anxiety or depression. Specifically, students with symptoms of anxiety or depression lacked access to an appropriate study space, as well as access to technology for online learning.

To mitigate these issues, we recommend that faculty and academic advisors proactively support students with symptoms of anxiety or depression. As these students reported environments that may not be conducive to virtual learning, faculty and staff should ensure that students are receiving adequate accommodations, such as deadline extensions and extended test-taking times. Furthermore, faculty and academic advisors should also plan for potential impacts upon students' engagement in classes, achievement, and overall well-being. This includes recognizing that drops in students' engagement or achievement could be connected to the students' mental health.

Finally, we recommend that faculty and academic advisors continue to exercise compassion for students with major depressive disorder and generalized anxiety disorder as they navigate higher education during the pandemic. In addition to grappling with concerns such as lack of access to mental health resources, food, secure housing, and reliable study spaces, these students are dealing with a rapidly changing landscape in higher education.

About the SERU COVID-19 Survey

The Student Experience in the Research University (SERU) Consortium administered a special survey on the impact of COVID-19 on student experience at U.S. public research universities. The SERU COVID-19 Survey assesses five areas to better understand undergraduates, graduates, and professional students' experiences during the global pandemic: 1) students' transition to remote instruction, 2) the financial impact of COVID-19 on students, 3) students' health and wellbeing during the pandemic, 4) students' belonging and engagement, and 5) students' future plans. You can access the full survey instrument [here](#).

Sample

The survey was a census survey administered from May 18 to July 2020 to undergraduate students at nine large, public research universities. The report uses data from 31,048 undergraduate students. The response rate was 14-31% at the respective institutions. More information about the demographic composition of the samples is available [here](#).

Methodology

All of the items we report in this research brief are categorical; therefore, we utilized Pearson's chi-square test to determine whether there is a statistically significant difference between the expected and observed frequencies of students' responses. We utilized the common probability level of $p < .05$, which serves as an a priori statement of the probability of an event occurring as extreme or more extreme than the one observed if the null hypothesis is true.

About the SERU Consortium

The Student Experience in the Research University (SERU) Consortium is an academic and policy research collaboration based at Center for Studies in Higher Education at the University of California – Berkeley (CSHE) working in partnership with the University of Minnesota and partner institutions. More information is available at <https://cshe.berkeley.edu/seru>.

Contact Information

Krista M. Soria, PhD, Assistant Director for Research and Strategic Partnerships, SERU Consortium, and Director for Student Affairs Assessment, University of Minnesota.
ksoria@umn.edu

References

Hager, E. R., Quigg, A. M., Black, M. M., Coleman, S. M., Heeren, R., Rose-Jacobs, R., Cook, J. T., Ettinger de Cuba, S. A., Casey, P. H., Chilton, M., Cutts, D. B., Meyers, A. F., & Frank, D. A. (2010). Development and validity of a 2-item screen to identify families at risk for food insecurity. *Pediatrics*, *126*, e26-e32.

Kroenke, K., Spitzer, R. L., & Williams, J. B. (2003). The Patient Health Questionnaire-2: Validity of a two-item depression screener. *Medical Care*, *41*, 1284-1292.

Kroenke, K., Spitzer, R. L., Williams, J. B., Monahan, P. O., & Löwe, B. (2007). Anxiety disorders in primary care: Prevalence, impairment, comorbidity, and detection. *Annals of Internal Medicine*, *146*, 317-325.

Suggested APA Citation

Soria, K. M., Horgos, B., & Luu, K. (2020). *Undergraduates' mental health during the pandemic: New insights into links with financial hardships, academic obstacles, and support*. SERU Consortium, University of California - Berkeley and University of Minnesota.