

# MENTAL HEALTH DURING COVID-19: THE EXPERIENCES OF FIRST- AND CONTINUING-GENERATION UNIVERSITY STUDENTS

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**Abstract:** We explored mental well-being among university students during the first 12 months of the COVID-19 pandemic, and whether those experiences differed as a function of generation status. Data were collected as part of the researchers' participation in the COVID-19 University Research on Education and Sustainability (CURES) Project, a multi-site study of adjustment among college students during the pandemic. University students (N = 395, average age = 21 years) completed a measure of COVID-19-related stress, the CESD-10 depression inventory, and the GAD-7 anxiety scale. They also reported whether they had received any mental health treatment and whether they had seriously thought about and/or attempted suicide since the start of the pandemic. Although research has documented multiple (pre-pandemic) mental health differences between first- and continuing-generation students, we found none. A multivariate analysis of variance revealed no significant effects for generation status on the three multi-item measures; first- and continuing-generation students reported equally high levels of COVID-19-related stress, depression, and anxiety. Thirty percent of students reported the onset of suicidal ideation and/or suicide attempts after the start of the COVID-19 pandemic (no generation status differences). Few students (16%) had received mental health treatment since the start of the pandemic (no generation status differences). The pandemic appears to have blurred prior differences between first- and continuing-generation students and to have exacerbated the challenges faced by all students. Identifying these challenges is an essential first step toward developing methods for enhancing student well-being as we move through and beyond the COVID-19 pandemic.

**Keywords:** COVID-19, pandemic, mental health, first-generation students

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## Introduction

The COVID-19 pandemic has disrupted life on a global scale, and scientific knowledge about the nature and extent of its psychosocial impact is needed (Riley *et al.*, 2020; Saltzman, Hansel, & Bordnick, 2020). Some researchers have posited that college students – and, in particular, first-generation college students – may be especially vulnerable to pandemic-related stressors (O'Connor *et al.*, 2020; Tasso, Sahin, & San Roman, 2021). Indeed, research conducted early in the pandemic found that many students reported experiencing a variety of negative emotions (e.g., sadness, anxiety, fear) and mental health deterioration (Madrigal & Blevins, 2021; Tasso *et al.*, 2021), coupled with stress due to pandemic-related academic changes and challenges (e.g., remote instruction, technology use) (Madrigal & Blevins, 2021; Okado *et al.*, 2021).

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The goal of our descriptive study was to examine mental health and well-being among university students during the first 12 months of the COVID-19 pandemic and to determine whether those experiences differed as a function of generation status. Data were collected during the final three months of the spring 2021 semester as part of the COVID-19 University Research on Education and Sustainability (CURES) Project. The CURES Project is a multi-site study that was developed to explore adjustment and resilience among first-generation college students during the COVID-19 pandemic.

Due to the exploratory and descriptive nature of our study, we had no specific hypotheses. However, research questions of interest include: What proportion of students' report having experienced mental-health-related issues (e.g., anxiety, depression, suicidal thoughts, or attempts)? What, if any, differences in mental health outcomes exist between first- and continuing-generation students?

## **Method**

### ***Participants***

Participants were 395 undergraduate students (280 women, 115 men) enrolled at a large public California State University (CSU) institution during the spring 2020 – spring 2021 campus closure. The CSU system is the largest four-year public university system in the United States; the specific institution is distinguished by its urban setting, surrounding population density, and federal status as a Hispanic-Serving Institution (HSI) and Asian American, Native American, Pacific Islander-Serving Institution (AANAPISI).

Participants were, on average, 20.6 years old ( $SD = 3.6$  years) and represented all four undergraduate classes, with 43.0% in their first year, 14.7% in their second year, 25.3% in their third year, and 17.0% in their fourth year. Ethnically, participants self-identified as Latinx/Hispanic (76.5%), Asian/Pacific Islander (12.9%), Black/African American (4.6%), White (4.1%), Middle Eastern (0.5%), and Mixed (1.5%). Most self-reported their sexual orientation as heterosexual (83.5%), with an additional 8.4% identifying as bisexual, 3.5% identifying as homosexual, 1.5% identifying as pansexual, and 3.1% identifying as questioning, unsure, or other.

Three-fourths of participants (74.7%) reported being the first person in their immediate family to earn a college or university degree. Most participants had been born in the United States (87.6%); 27.4% indicated that their mother/first parent, and 21.6% indicated that their father/second parent, was the U.S. born. The extent of formal education achieved by participants' parent(s) varied, with 67.1% of mothers/first parents and 73.2% of fathers/second parents having a high school or less than high school education.

Almost half (48.6%) of participants reported working in a paid position. On average, they reported working 25.3 ( $SD = 10.6$ ) hours per week and living in households comprised of 4.4 adults (including themselves,  $SD = 1.6$ ) and 0.8 ( $SD = 1.0$ , range = 0 to 5) children under the age of 18. Their annual household income varied, with about half (49.4%) reporting an income less than \$30,000 per year.

## **Procedure**

After receiving official permission from the university's Institutional Review Board to conduct this study, potential participants were recruited from lower-division undergraduate classes taught remotely during the spring 2021 semester. Students received a link to an online consent form that described the study and participant rights. Upon providing consent, they then received a link to an online (Qualtrics) questionnaire. Participants could skip any questions they did not wish to answer and could advance to the next page once submitting their responses (or without submitting any responses). Per IRB requirements, electronic copies of the consent form were not linked to questionnaire responses and are stored on a separate, password-protected, cloud-based server to which only the researchers have access.

## **Measures**

Participants completed three multi-item measures of mental health. The first was a 4-item measure of COVID-19-related stress created for this study; participants indicated the extent to which they keep track of COVID-19 spread (1 = not at all, 5 = on a daily basis), are worried about the COVID-19 pandemic (1 = not at all, 5 = extremely), believe that COVID-19 has impacted their day-to-day life (1 = not at all, 5 = very much), and would be worried about their health and symptoms if they were to contract COVID-19 (1 = not at all, 5 = very). Responses to these four items were summed.

The second measure was the Center for Epidemiological Studies Depression-10 inventory (CESD-10; Kohout *et al.*, 1993). This scale assesses depressive symptomatology among young adult populations. Sample items include "I felt everything I did was an effort," "I enjoyed life" (reverse-scored), and "I could not get going." Response options range from 0 (rarely or none of the time) to 3 (almost all of the time). Total scores of 10 (or higher) indicate moderate (to severe) depression.

The third measure was the 7-item Generalized Anxiety Disorder scale (GAD-7; Spitzer *et al.*, 2006). Sample items include "feeling nervous, anxious, or on edge," "not being able to stop or control worrying," and "feeling afraid as if something awful might happen." Response options range from 0 (not at all) to 3 (nearly every day). Total scores of 8 (or higher) indicate moderate (to severe) anxiety.

Finally, participants were asked to report whether they had received any mental health treatment (e.g., appointments with a psychiatrist, psychologist, and/or social worker) and whether they had seriously thought about and/or attempted suicide since the start of the pandemic (yes/no). Before responding to the suicide risk items, participants received information about accessing counseling services online and on-campus.

## **Results**

A multivariate analysis of variance (MANOVA) with Generation Status as the grouping variable was conducted on students' scores on the three mental health measures. This analysis revealed no significant multivariate or univariate effects for generation status (all *p*s ns). First and continuing-generation students reported equally high levels of COVID-19-related stress (13.7 vs. 13.8), depressive symptomatology (12.7 vs. 12.6), and anxiety (9.1 vs. 9.2). See Table 1.

Almost one-third (31.1%) of students reported having thought about or attempted suicide since the onset of the pandemic. However, few students (15.9%) reported receiving mental health treatment during that time. There was no difference in the proportion of first- and continuing-generation students who indicated experiencing suicidal thoughts or have attempted suicide (30.5% vs. 33.0%,  $z = 0.47$ ,  $p$  ns), and no difference in the proportion of first- and continuing-generation students who reported receiving mental health treatment (14.9% vs. 19.0%,  $z = -0.96$ ,  $p$  ns), since the start of the COVID-19 pandemic. See Table 2.

Table 1: Mental Health Scores (Mean, Standard Deviation) as a function of Generation Status

Variable	First-Generation Students		Continuing-Generations Students	
	Mean	SD	Mean	SD
COVID-19 Stress	13.7	3.3	13.8	3.5
Depression (CESD-10)	12.7	5.4	12.6	6.5
Anxiety (GAD-7)	9.1	6.2	9.2	6.2

Table 2: Suicide Risk and Mental Health Treatment as a Function of Generation Status

Variable	First-Generation Students		Continuing-Generations Students	
	Number	%	Number	%
Suicide Risk (Thought About or Attempted)	90	30.5	33	33.0
Mental Health Treatment	44	14.9	19	19.0

## Discussion

The goal of our descriptive study was to explore college students’ mental health outcomes during the first year of the pandemic. A related goal was to determine whether these outcomes differed as a function of generation status (i.e., first-generation vs. continuing-generation).

Even before the pandemic, research revealed a high prevalence of significant mental health issues (e.g., substance use disorders, major depression, suicidal ideation, suicide attempts) among college student samples (Auerbach *et al.*, 2018). Our results suggest that the pandemic has exacerbated those issues. Not only did our participants report symptoms indicative of moderate-to-high levels of anxiety and depression, but almost one-third had seriously considered suicide or had attempted suicide since the onset of the pandemic. Although prevalence rates for suicide risk among college students vary across samples, the rates obtained in our investigation are higher than have been observed in research conducted prior to the pandemic (Horwitz *et al.*, 2020; Mortier *et al.*, 2018a, 2018b). What might explain this? Researchers have documented a robust association between suicide risk and major life stressors (Buchman-Schmitt *et al.*, 2017) and, at the time of their participation, the students in our study had lived not only through a year or more of the “regular” stressors associated with college but also through the first year of a global pandemic. Thus, the high rate of suicidal ideation/behavioral attempts observed in our study makes intuitive sense. However, it is also alarming. Suicide is the second leading cause of death among college-age adults in the U.S. (Centers for Disease Control and Prevention, 2019), and suicide-related thoughts and behaviors are among its strongest predictors

(World Health Organization, 2021). Additional research on these risk factors, as well as on ways to reduce them, is essential as we move through and beyond this pandemic.

Unfortunately, despite the need for therapeutic intervention, only 16% of our participants reported accessing mental health services since the start of the pandemic. This rate is on par with that observed in other samples (Coley & Baum, 2021), and substantiates calls to develop effective strategies for ensuring adequate mental health service access during the pandemic (Liu *et al.*, 2020).

## **Limitations**

This study has limitations that we must acknowledge. First, our particular student sample was primarily female, ethnic minority, and first-generation. Second, all of our participants were enrolled at a large, urban, public state university. Consequently, their experiences may not generalize to students with different socio-demographic characteristics and/or those who are enrolled at different (e.g., private, small, residential) institutions. Third, our data were collected at one point and thus cannot address questions concerning changes in mental health outcomes over time. For example, it would be interesting to determine if mental health and wellbeing increase as students become more accustomed to post-pandemic life.

## **Conclusions**

The result pattern obtained in our study is one of similarity or shared experience among first-generation and continuing-generation college students, at least in the domain of mental health. Regardless of generational status, our student participants reported similar mental health stressors and experiences. Future research is needed to determine whether first- and continuing-generation students will maintain these similarities over time or whether they will begin to diverge again in this and other life domains.

We conclude by noting that there may be creative ways for institutions to address the challenges that students reported. For example, to increase student access to timely mental health care (and in line with national trends in mental health care delivery), school counselors might administer screenings and provide treatment for mental health issues remotely. All students might benefit, in fact, from targeted interventions that have been developed to combat the pandemic's impact on psychosocial adjustment (Van Orden *et al.*, 2021, for an example).

## **Acknowledgments**

The authors gratefully acknowledge support provided to Pamela Regan through a Provost's Faculty Fellow Award from Dr. José A. Gómez, Provost and Executive Vice President, California State University, Los Angeles; and their CURES project colleagues, John Bartholomew, Melissa Bessaha, Linda Castillo, Lindsay Ham, Marissa Hanson, Audrey Harkness, Charles Martinez, Jr., Alan Meca, Brandy Piña-Watson, Seth Schwartz, and Byron Zamboanga.

## **Declaration of Interest Statement**

The authors declare that they have no conflicts of interest.

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