

## **Students' Mental Well-Being During the COVID-19 Pandemic: Exploring Ways Institutions Can Foster Undergraduate Students' Mental Well-Being**

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*Abstract:* College student mental health has been a concern on U.S. college campuses for decades. The COVID-19 pandemic, which started to impact operations on U.S. college campuses in March 2020, created new stressors and challenges that negatively impacted college student mental health. The purpose of this mixed-methods study was to explore the mental well-being of undergraduate students at one large, public institution in the midwestern United States during the Fall 2020 semester. We collected data via two surveys, one at the beginning and one at the end of the Fall 2020 semester, as well as interviews at the beginning of the Spring 2021 semester. Overall, participants reported significantly lower social-psychological well-being during the COVID-19 pandemic than pre-pandemic. Participants struggled with social isolation, academic challenges, and a lack of motivation. Participants appreciated opportunities to engage with others, flexible and supportive faculty, and efforts of institutional leadership to keep them safe. However, participants had mixed feelings about the way institutional safety regulations and information on resources was communicated. While some found support through on-campus counseling services, others encountered barriers when trying to seek help. By early spring 2021, many participants had developed their own strategies to proactively foster their well-being. Findings indicate a need for institutions to more proactively foster students' well-being during and beyond the COVID-19 pandemic. Implications for practice are discussed.

*Keywords:* mental health, COVID-19, mixed-methods, undergraduate students

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College student mental health is a concern on U.S. college campuses. The number of students experiencing mental health issues has been on the rise (American College Health Association, 2021; Auerbach et al., 2016; Xiao et al., 2017) and institutions have struggled to provide adequate counseling services to meet demands (Hardy et al., 2011; Sapadin & Hollander, 2021). The Coronavirus Disease 2019 (COVID-19) pandemic, which started to impact operations on U.S. college campuses in March 2020, created new stressors and challenges that negatively impacted college student mental health (Charles et al., 2021;

Healthy Minds Network & American College Health Association, 2020; Huckins et al., 2020; Wang et al., 2020; Zhai & Du, 2020).

The COVID-19 pandemic drastically altered how U.S. higher education institutions operated (Smalley, 2021). Due to concerns about transmission of the Coronavirus disease, many institutions moved instructions online, encouraged students to move home or completely closed on-campus housing, and canceled in-person events and activities in spring 2020 (ACUHO-I, 2020; Smalley, 2021). During the 2020/2021 academic year, many institutions continued to primarily offer courses in an online modality, limited on-campus housing capacity, and enforced strict safety guidelines for any in-person interactions on campus (Chronicle Staff, 2020). Policies and practices were frequently adjusted to respond to increases and decreases in COVID-19 cases on campuses (Inside Higher Ed Staff, 2021).

Changes in institutional operations along with pandemic-related stressors negatively influenced student mental well-being during the pandemic. Students reported experiencing anxiety around contracting COVID-19, fears about the health and safety of loved ones, social isolation, and increased financial concerns (Healthy Minds Network & American College Health Association, 2020; Salimi et al., 2021; Son et al., 2020; Wang et al., 2020). Many students struggled with unexpectedly having to transition to an online learning environment while managing disruptions caused by the pandemic (Aguilera-Hermida, 2020; Gonzalez-Ramirez et al., 2021). Specifically, students reported not having access to reliable WiFi connections or a quiet study space, struggling with time management due to the online environment, and feeling less connected to peers and professors (Aguilera-Hermida, 2020; Gonzalez-Ramirez et al., 2021). These challenges hindered students' academic success and negatively impacted their well-being (Salimi et al., 2021).

The purpose of this mixed-methods study was to gain insights into the mental well-being of undergraduate students at one large, public institution in the midwestern United States. Specifically, we examined changes in students' self-reported social-psychological well-being and explored challenges participants encountered and ways they navigated these challenges during the Fall 2020 semester. Our goal was to provide practical implications for our research site, while also identifying ways in which institutions, in general, may proactively support student mental well-being during and beyond the COVID-19 pandemic.

### **Guiding Frameworks**

This inquiry was grounded in Diener and colleagues' (2009) conceptualization of flourishing and Baik and colleagues' (2016) Framework for Promoting Student Mental Wellbeing in Universities. While Diener and colleagues' conceptualization of well-being provided us with a way to frame and measure mental well-being, the Framework for Promoting Student Mental Wellbeing in Universities allowed us to explore how institutional initiatives and actions may shape student mental well-being. We discuss each of these frameworks next.

Diener and colleagues' (2009) conceptualization of flourishing describes an individual's self-perceived success related to relationships, self-esteem, purpose, and optimism. Specifically, well-being is based on the fulfillment of basic human psychological needs such as competence, relatedness, and self-acceptance, as well as human desires for meaning and purpose. Well-being is also shaped by engagement in supportive, rewarding, and reciprocal relationships. In addition, a person's attitude toward the future influences their well-being. Diener and colleagues developed their conceptualization of flourishing based on previous research on social-psychological well-being with the intention of describing well-being for a diverse group of individuals regarding social identities, nationalities, and age. The conceptualization of flourishing has been utilized to examine the well-being of diverse populations in and outside of the United States (e.g., Hone et al., 2013; Munoz et al., 2020; Silva & Caetano, 2011), including college students (Grier-Reed et al., 2022; Howell & Buo, 2015; Low, 2011). DeBate and colleagues (2021) used Diener and colleagues' conceptualization of flourishing to explore college students' mental health during the COVID-19 pandemic.

We used Diener and colleagues' (2009) conceptualization to describe what we mean by well-being in this study. It guided us in selecting a tool to measure well-being, the Flourishing Scale (Diener et al., 2009), which is described in more detail in the data collection section. In addition, Diener and colleagues' work shaped the questions we asked in our interview protocol, focusing not only on mental health but also on participants' attitudes toward the future and their satisfaction with social relationships.

We utilized Baik and colleagues' (2016) Framework for Promoting Student Mental Wellbeing in Universities to guide our understanding of ways in which institutions can foster students' well-being. The framework was developed within the Australian higher education context with the University of Melbourne, a public research university, serving as the lead institution. The framework has shaped research and practice in the Australian higher education context, leading to multiple publications (e.g., Baik et al., 2017; Johnston et al., 2017) as well as the creation of various resources for practitioners (The University of Melbourne, n.d.). Though the framework has not been widely used in the United States, it has been discussed in a U.S.-based publication focused on the COVID-19 pandemic (see Cheong et al., 2021).

Baik and colleagues' (2016) framework highlights five action areas that institutions should focus on for fostering student mental well-being. First, institutions should offer engaging curricula and learning experiences that foster students' self-efficacy, afford students choice and flexibility in how they approach learning, and create social connections among students. Second, institutions should cultivate inclusive and supportive social, physical, and online environments where respectful interactions and relationships are promoted. Third, institutions should strengthen community awareness about mental health and engage student affairs staff and student organizations in organizing well-being activities and events. Fourth, institutions should develop individual students' mental health knowledge and self-regulatory skills (e.g., time management, help-seeking behaviors) within academic and extra-curricular offerings. Finally, institutions should ensure access to effective services

by offering adequate resources and removing barriers that may prevent students from accessing these resources.

Baik and colleagues' (2016) framework guided the development of our research project, encouraging us to hone in on ways the institution fosters student mental well-being. We utilized the framework to develop interview questions and analyze data. As the framework was originally developed for the Australian university context, we were also interested in exploring whether this framework could be applied to a U.S. context and how it may need to be altered when utilized for U.S. higher education institutions.

### **Research Design**

To explore the mental well-being of undergraduate students during the COVID-19 pandemic at one large, public institution in the midwestern United States, we used an explanatory sequential mixed-methods design (Creswell & Creswell, 2018). Explanatory sequential mixed-methods studies are two-phase projects, where a researcher first collects and analyzes quantitative data, then uses the results to develop the qualitative portion of the study (Creswell & Creswell, 2018). Specifically, we first collected data via two surveys in the Fall 2020 semester and analyzed the results. We then conducted follow-up interviews with select participants early in the Spring 2021 semester. The research project was approved by the institutional review board and supported by a NASPA Region IV-East Research and Assessment Grant.

### **Research Site**

This study took place at a public research university in the midwestern United States. The institution has a selective admissions process with a 48% acceptance rate and an enrollment of approximately 12,000 undergraduates and 4,000 graduate students. The institution is a majority minority serving institution with 48% of undergraduates identifying as White, 19% as Black, 21% as Hispanic/Latinx, 6% as Asian, and 4% as bi- or multiracial.

During the Fall 2020 semester, the semester our study focuses on, most instruction at the institution took place online (synchronous and/or asynchronous), though the institution also offered some hybrid (a mix of online and in-person instruction) and in-person courses. On-campus housing opened with single capacity for both traditional residence hall and apartment-style buildings. Several new regulations were instituted on campus including mask requirements, social distancing guidelines, and surveillance testing. Information about institutional responses to the pandemic were posted on a designated website and distributed to students via email.

### **Participants**

All undergraduate students registered for courses at the institution were eligible to participate in the initial survey. The Division of Marketing and Communications emailed the survey invitation to each eligible student (n=12,009) and included it in the weekly institutional announcement during the first week of the fall semester. A total of 1,285 undergraduates responded, a response rate of 10.7%. In late October 2020, we sent a follow-up email to the 1,285 students who had completed the initial survey, to which 631

responded. Participants were entered in a raffle for two \$50 gift cards, one for initial survey respondents and one for follow-up survey respondents.

Participants who did not complete the main sections of the survey were excluded from the analysis. Specifically, incomplete responses to the measurement for social-psychological well-being could not be analyzed. In addition, student IDs were utilized to connect initial and follow-up survey responses; thus, responses without a student ID number could not be included in the analysis. This resulted in a final sample of 1,267 participants for the initial survey and 415 for the follow-up survey. Women and White students were overrepresented in our sample for both the initial and the follow-up survey. See Table 1 for detailed participant demographics for both surveys.

**Table 1.** *Participant Demographics.*

Demographic	Start of Semester Survey		End of Semester Survey		Interviews	
	n	%	n	%	n	%
<b>Gender</b>						
Man	386	30.5	94	22.7	0	0
Woman	844	66.7	306	73.9	8	88.9
Transgender Man/Woman, Genderqueer, Gender Non-Conforming	28	2.2	11	2.6	1	11.1
Other	8	0.6	3	0.7	0	0
<b>Race/Ethnicity</b>						
American Indian, Alaskan Native, Indigenous, or First Nation Only	10	0.8	2	0.5	0	0
Arab or Middle Eastern Only	6	0.5	3	0.7	0	0
Asian or Asian American	91	5.7	28	6.7	0	0
Black or African American Only	142	11.2	39	9.4	0	0
Hispanic or Latina/o/x Only	198	15.6	55	13.3	2	22.2
White Only	773	61.0	262	63.1	7	77.8
Biracial or Multi-racial	60	4.7	23	5.5	0	0
Other	6	0.5	3	0.7	0	0
<b>Socio-Economic Status</b>						
Lower Class	113	8.9	26	6.3	0	0
Lower Middle Class	368	29.1	119	28.8	1	11.1
Middle Class	643	50.8	219	53.0	7	77.8
Upper Middle Class	135	10.7	47	11.4	1	11.1
Upper Class	6	0.5	2	0.5	0	0

Demographic	Start of Semester Survey		End of Semester Survey		Interviews	
	n	%	n	%	n	%
<b>Class Level</b>						
New undergraduate student	291	23.0	87	21.0	1	11.1
Transfer undergraduate student	212	16.7	62	14.9	1	11.1
Returning upperclass undergraduate student	764	60.3	266	64.1	7	77.8
<b>Course Modality</b>						
All Online Courses	783	61.9	251	60.5	4	44.4
Some Hybrid/In-Person Courses	440	34.8	151	36.4	3	33.3
All In-Person Courses	8	0.6	4	1.0	0	0
Other	34	2.7	9	2.2	2	22.2
<b>Housing Arrangement</b>						
Living on campus	434	35.4	151	37.3	4	44.4
Living off-campus with roommates	164	13.4	58	14.3	3	33.3
Living on their own	133	10.8	43	10.6	0	0
Living with family	496	40.4	153	37.8	2	22.2

In the follow-up survey, we asked students if they were willing to participate in an interview early in the spring semester. A total of 123 participants volunteered. Initially, we purposefully selected interviewees to represent the diversity of our participants (regarding race/ethnicity, gender) and experiences with mental health (i.e., students who indicated that their mental health decreased drastically, a little bit, not at all, or improved). Research team member reached out to selected participants to invite them for an interview; if a student did not respond after two attempts to reach them, we selected another volunteer. Because few students ended up following through on interviews, we ended up reaching out to all 123 participants. Only 9 students completed the interview and the diversity of respondents was limited (see Table 1 for interview participant demographics).

**Quantitative Data Collection and Analysis**

In alignment with an explanatory sequential mixed methods research design (Cresswell & Creswell, 2018), we first engaged in quantitative data collection. Our quantitative data collection included the distribution of two surveys. Survey research is useful for soliciting numeric descriptions of attitudes or experiences encountered by a population (Cresswell & Creswell, 2018). Both surveys included Diener and colleagues' (2009) Flourishing Scale, which is copyrighted but available for research use. The Flourishing Scale was developed based on previous theories and measurements of social-psychological well-being and Diener and colleagues' conceptualization of flourishing. Diener and colleagues tested the 8-item scale with college students in the United States. Results indicated a good internal

consistency of the scale with a Cronbach's Alpha value of  $\alpha = .87$ . The scale was also strongly associated with other conceptualizations of psychological well-being. Further research supported the validity of the scale (e.g., Hone et al., 2013; Silva & Caetano, 2011). The Flourishing Scale is commonly used in research on college students' psychological well-being (e.g., Howell & Buu, 2015; Low, 2011; DeBate et al., 2021). The American College Health Association (2021) has also included the Flourishing Scale in its annual National College Health Assessment since fall 2019.

Diener and colleagues' (2009) Flourishing Scale measures one's overall social-psychological well-being. Respondents are asked to rate their level of agreement with eight statements on a 7-point Likert scale (7=Strongly Agree to 1=Strongly Disagree). An individual's social-psychological well-being is determined by summing the responses of each item. The scale is not intended to provide insights into facets of well-being, but rather provides one score that indicates an individual's overall well-being. This score can range from 8-56 with a higher number indicating a higher level of well-being.

The initial survey included two versions of the Flourishing Scale. The first version asked students to describe their well-being prior to the start of the pandemic. Statements were revised to clarify that respondents were asked to answer questions in retrospect. For example, the statement, "I lead a purposeful life" was revised to, "I felt like I led a purposeful life prior to the start of the Coronavirus pandemic." The second version of the Flourishing Scale in the initial survey was unaltered and asked students to describe their well-being at the time of completing the survey, the start of the Fall 2020 semester. The follow-up survey included only one version of the Flourishing Scale and asked students to respond as they felt at the time of completing the survey, late October or early November 2020.

The initial survey also included questions regarding participants' demographics, course modality, and housing accommodations. In addition, the survey included a researcher-created question asking participants what aspects of their well-being they were concerned about as they started the academic year. Answer choices included the eight dimensions of well-being: physical, emotional, vocational, intellectual, social, spiritual, financial, and environmental with brief definitions for each dimension (Substance Abuse and Mental Health Services Administration, 2016). The follow-up survey included three researcher-created questions: One question asked participants to select challenges they had encountered in the past semester from a list created by the research team. Answer choices, which were based on our review of the literature (Aguilera-Hermida, 2020; Gonzalez-Ramirez et al., 2021; Healthy Minds Network & American College Health Association, 2020; Salimi et al., 2021; Son et al., 2020; Wang et al., 2020), included social isolation, academic struggles due to the new learning environment (online/hybrid), lack of motivation to complete my degree, lack of opportunities for involvement, financial challenges, concerns about family members' health and safety, disappointment as college isn't what I expected it to be, technology issues. Participants could also select "other" and enter their own responses or select "I have not experienced any challenges as a student at [institution name] this fall." The second question asked about utilization of counseling services. The third question asked participants to select the dimensions of well-being that had decreased during the Fall 2020 semester.

After administering the second survey, we started data analysis of quantitative survey responses using SPSS. We first cleaned the data, then merged the initial and follow-up responses. Descriptive statistics provided a general overview of participant demographics. We created frequency tables for researcher-created responses to examine what percentage of participants encountered certain challenges and participated in counseling, what aspects of well-being participants were concerned about at the start of the Fall 2020 semester, and in what areas they believed that they had experienced a decrease in well-being. We also determined participants' Flourishing Scale Scores at three time points (pre-pandemic, start of the semester, end of the semester). Next, we calculated Cronbach's Alpha to test the internal reliability of the Flourishing Scale (see Table 2). Cronbach's alpha scores indicated a high level of internal consistency for each version of the scale with our specific sample.

**Table 2.** Reliability Statistics.

Scale	Data Collection Timeframe	Cronbach's Alpha
Pre-Pandemic Flourishing Scale (altered questions)	Early Fall 2020 semester	.884
Flourishing Scale	Early Fall 2020 semester	.895
Flourishing Scale	Late Fall 2020 semester	.910

To examine changes in students' social-psychological well-being, we conducted repeated measured ANOVAs. We first compared pre-pandemic and early fall semester Flourishing Scale scores for the larger sample who completed the first survey and calculated the effect size of the change using partial eta squared (Lomax & Hahs-Vaughn, 2012). We then compared Flourishing Scale scores at three time points (pre-pandemic, early Fall 2020 semester, late Fall 2020 semester) for the smaller sample from the follow-up survey. As Mauchly's test indicated that the sphericity assumption had been violated,  $\chi^2(2) = 6.04$ ,  $p = .049$ , the degrees of freedom were corrected using Huynh-Feldt estimates of sphericity ( $\epsilon = .99$ ; Lomax & Hahs-Vaughn, 2012). We also calculated effect sizes for this analysis using partial eta squared scores. We interpreted partial eta squared scores of .01 as small, .06 as medium, and .14 or higher as indicating a large effect (Cohen, 1988; Miles & Shelvin, 2001).

### Qualitative Data Collection and Analysis

The second phase of data collection and analysis focused on qualitative data, in alignment with an explanatory sequential research design (Creswell & Creswell, 2018). Our quantitative data highlighted an overall decrease in students' social-psychological well-being and informed us about frequently encountered challenges. The descriptions of these challenges, however, were broad and provided limited insights into ways practitioners could address the challenges students were facing. The goal of our qualitative data collection and analysis phase was thus to gain an in-depth understanding of the challenges students were facing as well as how they navigated these challenges in an effort to inform future practice at our and other institutions.



We collected data via semi-structured interviews (Merriam & Tisdell, 2016), which lasted approximately 45-60 minutes. Based on quantitative findings, our interview questions focused on the most commonly experienced challenges in the fall semester: social isolation, academic struggles due to the new environment, lack of motivation to complete the degree, and lack of involvement opportunities. We, however, also provided opportunities for participants to add additional challenges to see if other themes may rise to more prominence during the qualitative data collection phase. For each of the challenges participants brought up, we asked them to discuss how and why they were experiencing these challenges, how these challenges shaped their mental well-being, as well as how they navigated these challenges. In addition, guided by Baik and colleagues' (2016) framework, we asked specific questions about institutional initiatives that supported students' well-being, ranging from ways institutions communicated well-being information to students to actual resources that were provided.

To analyze our qualitative data, we had interview recordings transcribed using a paid transcription service. We then engaged in multiple rounds of coding (Merriam & Tisdell, 2016). First, each research team member conducted a round of open coding before coming together to compare codes and create a tentative codebook. In the next round of coding, we applied the codebook to the transcripts, revising codes as needed. We then came together again to compare codes and discuss emerging themes. Last, we compared our emerging themes to Baik et al.'s (2016) framework to see where themes aligned with the framework and where they might differ. In a final step of analysis, we compared quantitative and qualitative results to identify overarching themes based on both sets of data.

### **Limitations**

Our study has several limitations that should be considered when interpreting results. First, being situated at only one institution, findings are not generalizable to other institutions (Yin, 2014). We provided information about the research site to allow readers to determine what aspects of these findings may be transferable to their unique contexts. However, generalizability even at our institution is limited due to the low response rate. These findings should thus be interpreted as providing possible insights into the experiences of students at the institution that need to be explored further. Second, when interpreting interview results, the small number of participants and overrepresentation of White middle-class women need to be considered. Future research should explore the experiences of a more diverse group of students to gain insights into the ways identity has shaped students' experiences and well-being during the COVID-19 pandemic. Third, participants were asked to evaluate their social-psychological well-being prior to the pandemic in retrospect. Participants may have overestimated their pre-pandemic well-being due to recall bias (Creswell & Creswell, 2018). However, general assessments of well-being such as the Flourishing Scale have been found to be less impacted by recall bias than recollections of specific emotions at a certain time (Ganzach & Yaor, 2019; Zygar-Hoffmann & Schönbrodt, 2020). Retrospective assessments of health-related quality of life are considered a valid alternative to pre-tests, when data could not be collected at an earlier time point (Lawson et al., 2020). Finally, an analysis of our data by demographics went beyond the scope of this manuscript. Previous research on college students has

highlighted differences in well-being by demographics (e.g., Bowman, 2010; Eisenberg et al., 2013; Lipson et al., 2018). Thus, future research should explore how students' backgrounds influenced their well-being and experiences during the pandemic.

### Findings

Overall, participants' self-reported social-psychological well-being was lower during the Fall 2020 semester than pre-pandemic. Participants shared that concerns about their health and safety, social isolation, academic challenges, and a lack of motivation led to their lower well-being. They appreciated opportunities to engage with others, flexible and supportive faculty, and institutional safety regulations. However, participants had mixed feelings about the way institutional safety regulations and information on well-being resources were communicated, and some encountered barriers when trying to access on-campus mental health resources. By early spring 2021, many participants had developed their own strategies to proactively foster their well-being. In this findings section, we first highlight changes in participants' social-psychological well-being. We then discuss participants' experiences during the Fall 2020 semester, focusing on challenges they encountered and ways they navigated these challenges.

#### Participants' Social-Psychological Well-Being in the Fall 2020 Semester

We conducted repeated measures ANOVAs to examine changes in participants' well-being (see Table 3). Participants of the first survey reported significantly lower levels of well-being at the beginning of the Fall 2020 semester than pre-pandemic. The difference in scores had a large practical significance. To better understand how participants' well-being changed during the Fall 2020 semester, we conducted a repeated measures ANOVA analysis, comparing participants' Flourishing Scales at three time points (pre-pandemic, early Fall 2020 semester, late Fall 2020 semester). This analysis highlighted that social-psychological well-being significantly differed at each of the three time points. However, while the improvement of participants' social-psychological well-being from the beginning to the end of the Fall 2020 semester was statistically significant, the practical significance of this change was small ( $\eta^2_p = .004$ ). Participants' Flourishing Scale scores did not reach pre-pandemic levels by the end of the Fall 2020 semester and the difference between pre-pandemic and late fall scores had a large practical significance ( $\eta^2_p = .204$ ). In other words, there was little improvement in participants' well-being during the Fall 2020 semester.

**Table 3.** *Repeated Measures ANOVA.*

	Mean	SD	F	$\eta^2_p$
<b>Initial Survey Sample (n=1,267)</b>				
Pre-pandemic Flourishing Scale Score	48.5	6.05	508.13*	.286
Flourishing Scale Score, early Fall 2020 semester	43.4	7.92		

	Mean	SD	F	$\eta^2_p$
<b>Follow-up Survey Sample (n=415)</b>				
Pre-pandemic Flourishing Scale Score	48.4	6.26	114.24*	.216
Flourishing Scale Score, early Fall 2020 semester	42.9	7.84		
Flourishing Scale Score, late Fall 2020 semester	44.5	8.16		

\* $p < .001$ .

### Participants' Experiences During the Fall 2020 Semester

Participants reported encountering a variety of challenges during the Fall 2020 semester that led to the decrease in mental well-being (see Table 4). Interviews not only provided further insights into these challenges but also highlighted the negative impacts of these challenges as well as ways in which participants navigated these challenges and how institutional agents supported them in doing so. Our analysis of survey and interview data led to the following four themes: (a) participants struggled with a lack of social connections in- and outside the classroom; (b) participants encountered challenges in adjusting to the primarily online learning environment; (c) participants were aware of and concerned about the decrease in their mental health but were hesitant to seek out mental health resources. We discuss each of these themes next, highlighting not only the challenges participants encountered but also ways they navigated these challenges and institutional actions that fostered their mental well-being.

**Table 4.** *Challenges Participants Encountered.*

Challenge	N	%
Social isolation	268	66.0
Academic struggles due to new learning environment (online/hybrid)	263	64.8
Lack of motivation to complete my degree	211	52.0
Lack of opportunities for involvement	208	51.2
Financial challenges	173	42.6
Concerns about family members' health and safety	171	42.1
Disappointment as college isn't what I expected it to be	170	41.9
Technology issues	158	38.9
Other	15	3.7
I have not experienced any challenges as a student at [institution name] this fall.	16	3.9

Note.  $n = 406$ .

### **Social Connections**

Participants highlighted not being able to connect socially with others, whether in- or outside of the classroom, as one of the biggest challenges they encountered during the Fall 2020 semester. Social isolation was the most commonly selected challenge by survey participants (66.0% of participants) and more than half (51%) reported struggling due to a lack of opportunities for involvement. Sixty-three percent of participants in the initial survey indicated that they were concerned about their social well-being as the academic year started. Nearly 60% indicated in the follow-up survey that their social well-being decreased during the Fall 2020 semester. Interview responses reinforced the challenge of social isolation, while highlighting where and how social isolation occurred, ways participants navigated this challenge and actions by faculty and staff that participants perceived as helpful in addressing this challenge.

**Specific Challenges Students Encountered.** Interview participants noted that they lacked social connections in and outside of class. They further highlighted that the lack of informal conversations before or after class further amplified their social isolation.

**Lack of In-Class Engagement with Peers.** Participants noted a lack of social engagement with peers in class, which they perceived as hindering their academic success because they learned better with peers than alone. For example, Elena, a Latina upperclass student, appreciated that her professor did not require much group work, as she found working with peers was difficult in the online environment. At the same time, she missed being able to learn from her peers. She explained, "The extroverted part of me really enjoys getting to pick people's brains and learn from other people who are my peers". Not being able to engage in conversations with peers, Elena felt that she not only got less of an in-depth understanding of course material but also missed out on hearing others' perspectives and gaining insights into how people think. Elena considered learning about others a valuable part of her college education and was disappointed that she missed out on this aspect of her education during the pandemic.

**Lack of Social Engagement Before and After Class.** Interview participants further discussed how, in the online environment, there were little or no informal interactions with peers before or after class, which negatively influenced their ability to connect with peers. For example, Danielle, a White woman who was a returning upperclass student during the Fall 2020 semester, shared:

I would definitely say it's been a lot harder keeping up those relationships. Normally the people who I was friends with, I'd just see them before classes. I'd sit with them for maybe 15 minutes, talk to them about their day, and now I don't have that natural interaction with them.

Participants like Danielle missed the opportunity to interact with peers throughout the day. Having to intentionally schedule time with friends along with worries about health and safety led to many participants having limited social interactions.

**Lack of Out-of-Class Engagement with Peers.** Several interview participants indicated that they struggled to connect with peers outside of class, a challenge that was particularly

pronounced for students new to the institution. For example, Barbara, a White upperclass woman who had transferred to the institution half-way through the 2019-2020 academic year, explained, "Transferring to a new school, I'm not able to connect with that new school and that new community. It's left me feeling more isolated." Barbara did not have connections to campus or peers pre-COVID and was unable to create such relationships or get to know campus once the institution had moved to remote learning.

**Strategies for Navigating Social Isolation.** Interview participants noted how they tried to move social engagement with peers to online platforms, which allowed them to reduce some of the social isolation they experienced and improved their mental well-being. For example, Beth, a White upperclass woman, shared how regular online interactions with a tight-knit group of friends from home via a Snapchat group fostered her mental well-being during the pandemic:

I think it's very much shaped [my mental well-being] positively just because it is very much a group where we all go in and talk about our problems. If something happens, we'll go into the chat and be like, "Hey, do you guys want to hear about this thing that just happened?", and they'll be like, "Sure." We'll usually end up being able to offer each other advice.

Having an outlet to talk about problems she was facing helped Beth find ways to better manage the stressors she encountered. Another participant, Jamie, a White upperclass student, shared how involvement in an online *Dungeons and Dragons* role-playing group provided opportunities to connect:

My D&D group for Fridays, we are very active. We never shut up. I think I sent over 45,000 messages in that chat alone. We never shut up.... If I didn't have the access to things like that, I don't think I would be doing nearly as well with the quarantine and everything as I am.

Participants like Jamie and Beth found ways to move their out-of-class social interactions to online platforms, which allowed them to still feel connected to others during the pandemic.

**Actions By Faculty That Reduced Social Isolation.** Participants appreciated opportunities for engagement via courses, whether online or in-person. For example, Tara, a White upperclass woman, shared how one professor provided a venue for social interactions in an online course. She said, "We had a kind of mini social media thing where students would just post or they were required to post things like questions or status updates and reply to each other. So that was nice for socializing." Tara valued the ability to connect with her classmates via discussion boards. Similarly, Susan, a Latina woman who was a new transfer student in fall 2020, appreciated the opportunity to engage with peers in break-out groups during synchronous class meetings:

[The professor] makes us divide into small groups every week and we have to talk to them every week on Monday at 6. That's the only class where I've gotten to know students like on a little bit more of a deeper level. Like what are you studying, what are your interests.

Being a new transfer student, Susan appreciated the opportunity to talk to other students, even if it was only online. Other participants, who felt comfortable with in-person interactions given strict safety requirements, appreciated opportunities to have in-person courses or at least occasional in-person activities. For example, Leann, a White upperclass woman, explained, "I have some studio classes where we can go in every now and then. So once or twice a week I'll be in the art building. And that has been so nice to just go and be there." For Leann, being able to go to an in-person class provided a much-needed outlet to interact and socialize with others.

### **Online Learning Environment**

Adjustment to the online learning environment was another challenge many participants encountered. Sixty-five percent of survey participants indicated that they encountered academic challenges due to the new learning environment. Some of these challenges may be due to a lack of motivation to complete their degree, a challenge over half of survey respondents (52%) noted, as well as disappointment in the way their college experience turned out (41%), and/or technology issues (38.9%). Interview participants reinforced the finding of challenges with adjustment to the online environment while providing more insights into what specifically they struggled with as well as highlighting strategies they used to navigate these challenges and ways that faculty supported them in that adjustment.

**Specific Challenges Students Encountered.** Interview participants highlighted that they struggled to stay focused and manage their time. They felt unmotivated and worried that they were not getting the education they needed to be successful in future careers.

**Time Management and Focus.** The online environment created new challenges related to time management and paying attention for participants, which negatively impacted their academic success. For example, Jamie, who had synchronous online sessions for some classes, shared:

I have trouble focusing with online classes, because it's so easy to get distracted. Because the internet is right there, and there's not other people around me, not peer pressure per se, but peer pressure into paying attention, if that makes sense. So it's become a lot harder for me to focus on stuff.

In the online environment, participants like Jamie easily got distracted and stopped paying attention. Others like Tara, who had primarily online courses, struggled to stay on top of assignments. She explained, "I was not able to keep up with my assignments as well last semester...weekly assignments and stuff that I usually remember, I just kept forgetting they exist." For participants like Tara, the online environment made it more difficult to stay organized and manage her time well.

**Monotonous Environments and Daily Routines.** Interview participants highlighted how monotonous environments and daily routines made it difficult to stay motivated. For example, Leann, who was taking all online courses, shared:

Every day felt the same.... It was hard to distinguish the days from each other, because I was sitting in front of my laptop every single day and it felt like exactly the same.... So

I would say motivation was really difficult last semester, because it was really hard to feel things mattered.

Days seemed to blend into each other, which made it difficult for Leann to stay motivated.

Another participant, Tara, struggled not only with motivation but also frequently felt overwhelmed with her academics, something she believed was due to the monotony. Tara did not do well academically in the fall; however, when she compared her workload between previous semesters and the fall semester, she noticed that there was no difference. She said:

Well, I actually looked at... I keep my folders separated between semesters and it looks like my workload was about the same. I don't know. Maybe it was just being in the same environment the whole time. I actually started to hate my living room a little bit.

For participants like Tara, it was not just the monotonous daily routines but also being in the same environment each day, which made them feel unmotivated and overwhelmed.

**Limited Learning.** Some participants worried that they were not getting the education they needed to be prepared for their future careers. For example, Barbara, an elementary education major, explained, "A lot of what I need to learn is by doing. And with COVID, we had to go fully remotely and so a lot of the learning and the practicing and the doing got cut out." Barbara was worried that due to the lack of practice, she would not be prepared when starting her first position after graduation.

**Strategies for Navigating Academic Challenges in the Online Environment.** Interview participants shared that, over time, they developed new strategies to address the academic challenges they faced. These strategies helped them improve not only their academic performance but also their mental well-being. For example, Beth found new strategies to keep herself organized, which lessened her stress and improved her well-being. She explained:

I've gotten myself an actual physical calendar. I went through all the syllabuses that my professor gave me and wrote down all the dates, and so I have everything marked out of when they're due. That's definitely helped me better organize my time since last semester, since now I can actually physically see, Okay, what's due on this day? What's due on this day?, and know, Okay, then I have to work on it during this period or I have to do it this part of the week because I have something else due another day and I need to give myself more time for that assignment.

Being more organized allowed Beth to stay on top of her responsibilities for her courses, particularly in the online modality. This strategy made her feel less stressed about school and thus positively influenced her well-being.

Other participants found ways to connect with peers and support each other, even in an online environment. For example, Danielle, who learned best when studying with friends shared:

That one semester where we split halfway through, I definitely stopped reaching out with my friends and I stopped asking them for help, but then the next semester I was actually reached out to, for a part of a study group. So I was able to talk with other people who were in a couple of my classes with me, and that definitely helped. I think once we all figured out what it was like being online, making study groups and all that really helped.

Having interactive learning opportunities via a study group helped Danielle do better in her classes, lessened some of her stress, and made her feel less isolated.

**Actions By Faculty That Supported Academic Success and Well-Being.** When faculty were flexible and supportive, it lessened participants' academic stress and fostered their well-being. For example, Tara said, "I have had very nice teachers, especially my German teacher who was very understanding when I told him that I was going through something and that a lot of my assignments were going to be late." Tara appreciated her professors' flexibility regarding deadlines, when she encountered personal challenges during the pandemic. Similarly, Kendra, a White woman who was a new undergraduate student in fall 2020, shared:

All of my professors, I feel like, have done a good job of reaching out to everyone in their class and telling them that this is such a big change that they're fine with making exceptions based on whether or not you can get something done. They're very understanding of everyone's situation.

Like Tara, Kendra appreciated her professors' understanding that personal stressors may interfere with academic performance and their flexibility regarding due dates.

Other participants appreciated professors' flexibility in how they chose to participate in synchronous class sessions. Beth explained:

I know this is maybe a weird thing, but I know in a lot of my classes, we have our cameras turned off and it's just the professor's camera. I feel like that's just helped a little bit in terms of wellbeing for me just because I feel like nobody ever really looks good on these webcams and stuff. For me, it's kind of a self-esteem thing, but not having to stare at myself or know that other people are going to be able to look at me in a very large group has been nice.

Beth felt self-conscious when her camera was on in synchronous class sessions; she, thus, appreciated when faculty allowed students to choose whether they wanted to turn on cameras.

### **Concerns about Mental Health But Limited Health Seeking**

Participants were aware and concerned about the decrease in their mental well-being. Specifically, 67.4% of respondents indicated that they were concerned about their emotional well-being at the start of the academic year. Reflecting on the Fall 2020 semester when completing the follow-up survey, 64.6% of participants reported having experienced a decrease in their emotional well-being. These responses further supported the decrease found in participants' social-psychological well-being, based on the Flourishing Scale, but also highlighted that participants recognized the decrease in their



mental health. Despite participants' awareness of their low mental well-being, only 19.3% of survey respondents indicated that they had taken part in individual or group counseling during the semester; a percentage well below the national average of 27.7%, as reported by the American College Health Association (2021). Among our survey respondents, 6.7% reported receiving counseling through the institution's counseling center and 12.6% through another provider; which supports findings by the American College Health Association (2021) that more undergraduate students participate in counseling with providers off campus. Interview responses shed lights on the challenges participants encountered when seeking out mental health resources.

**Specific Challenges Students Encountered.** Interview participants were aware of mental health resources on campus but several encountered barriers when trying to seek help. Specifically, participants noted challenges with availability and accessibility of counseling on campus.

**Lack of Availability.** Several participants indicated that the counseling services on campus were not adequate to address the demand. For example, Danielle who considered setting up a counseling appointment gave up after seeing a note on the website about limited availability. She explained:

It just seemed busy, so I didn't want to sign up for it ... I just saw something on their website that said they had a lot of people trying to sign up for counseling. So I was like, okay, I'm good then.

Danielle did not think that her needs were dire enough to warrant taking advantage of the limited available time slots. Thus, while Danielle may have been able to get an appointment, she chose not to pursue the option further after learning about the limited availability of counseling on campus.

**Concerns about Quality of Counseling.** Other participants had concerns about the quality of the counseling they would receive, particularly as it relates to the openness and understanding of counselors regarding their social identities. For example, Beth, who identified as part of the LGBTQ+ community, was hesitant to seek counseling, whether on- or off-campus because of stories she heard from friends. She explained:

A lot of the counselors did mention that they're LGBTQ+ friendly, but at the same time, as somebody who's part of that community, I know that that doesn't always mean that they're really supportive, if that makes sense. Again, speaking from other people I know, they've mentioned that they've seen therapists who say that they're friendly to that community, only to get there and have them either not understand their issues or shut them down on their issues, or even in a couple cases, try and convince them that they're not LGBTQ+.

Hearing about her friends' negative experience with counselors made Beth hesitant to seek help herself. While she recognized that counseling could be a helpful strategy to address her mental health concerns during the COVID-19 pandemic, she opted to not even try counseling.

**Strategies for Navigating Mental Health Concerns.** Participants who took advantage of counseling on campus found that counseling services played an important role in fostering their well-being during the pandemic. For example, Elena had seen a counselor at the on-campus counseling center prior to the pandemic and returned to counseling during the pandemic. She shared:

I think talking with a counselor is really helpful because it is that exchange of ideas but this person is completely separate from my life. My counselor is actually really instrumental in me trying to figure out if I should stay at [name of institution] or if I should live with my parents for my last semester. That was really hard for me to decide because all my friends were over there, but at the same time, was I seeing my friends? That's debatable. So I think that seeing my counselor had a really positive effect on me.

Elena appreciated being able to talk to someone outside her close circle. Her counselor helped her work through difficult decisions such as whether to return to the residence halls for the spring semester. Counseling may, thus, be an effective resource when students are able to overcome the barriers in accessing counseling services.

Other participants opted to find their own strategies to foster their mental health, often related to prioritizing self-care. For example, Leann explained, "I think last semester [fall 2020] is when I really realized how much stress I was really under." Due to this recognition, Leann decided to prioritize self-care. She shared:

Before this semester I've always kind of meditated intermittently. But this semester, I have tried to do that more and create more time for myself in doing that. So I've been trying to meditate pretty much every day, at least during the week, at least for 10, 15 minutes a day, just to have that kind of time to not think about anything else.

Prioritizing her self-care by setting aside time for meditation each day seemed to positively influence Leann's well-being and allowed her to better manage the stressors and challenges of the pandemic.

**Institutional Actions That Reduced Mental Health Concerns.** Participants had mixed feelings about institutional actions intended to spread awareness about mental health resources. The institution sent frequent COVID-related email messages and had a website with COVID-related information. Emails and the website included information about mental health resources, including counseling as well as workshops and other activities intended to foster mental well-being. Some participants appreciated the information shared by the institution. For example, Kendra explained, "Well, I've noticed all the mass emails that go out. I can tell that they're really putting the students first and care about their well-being, obviously." Kendra perceived the emails as showing that the institution cared about students. Other participants, however, wished there had been more than just emails. Leann explained, "But I just feel everything is just been constant emails for a year, and no feeling of real support. I don't know what's going on behind the scenes." Participants like Leann did not feel supported by the emails and instead wondered what she was not told about. Leann was one of the participants who opted not to take advantage of counseling services or other campus resources related to fostering mental well-being; instead she developed

her own strategies like meditation to deal with her low mental well-being. Leann's skepticism about the information shared via email may have contributed to her hesitancy to seek out campus resources.

### **Discussion and Implications for Practice**

Our findings highlight the significant impact the COVID-19 pandemic had on undergraduate students' social-psychological well-being during the Fall 2020 semester. Our study adds and expands on previous research, which highlighted the decrease in mental well-being during the early months of the pandemic (e.g., Charles et al., 2021; Huckins et al., 2020; The Healthy Minds Network & American College Health Association, 2020; Wang et al., 2020; Zhai & Du, 2020). Our findings indicate that students continued to have low mental well-being throughout the Fall 2020 semester.

Similar to previous studies, our participants highlighted that they struggled in particular with social isolation and academic challenges due to the online learning environment (Aguilera-Hermida, 2020; Gonzalez-Ramirez, 2021 et al.; The Healthy Minds Network & American College Health Association, 2020). These challenges negatively impacted their well-being (Salimi et al., 2021). In addition, our participants indicated that the monotonous environment and daily routines made it difficult for them to stay motivated and engaged in their academic work.

Our findings highlight that Baik et al.'s (2016) Framework for Promoting Student Mental Wellbeing in Universities is applicable to the U.S. higher education context and could be used to foster students' mental health during and beyond the COVID-19 pandemic. Our findings point to several implications for practice, many of which are connected to action areas from the framework. First, regarding offering engaging curricula and learning experiences, our participants noted how the lack of such curricula led to academic challenges and monotony, which negatively impacted their well-being. Having flexible faculty and opportunities for social connections in and outside of the classroom fostered their well-being. Creating opportunities for engagement and connection may be particularly important in online learning environments (Khan et al., 2021) but also fosters student learning in traditional face-to-face classroom settings.

Second, our findings support the action area of developing inclusive and supportive social, physical, and online environments. In particular, our participants who were new transfer students struggled to find a welcoming community on campus during the COVID-19 pandemic. Previous research, unrelated to the pandemic, has similarly highlighted barriers to transfer student adjustment and success (Santos Lanaan, 2001; Umbach et al., 2019). Our findings underline the importance of proactive outreach in supporting students and creating inclusive communities as participants, who struggle academically or feel isolated, may be hesitant to reach out to faculty, staff, or peers.

Third, our findings highlight positive improvements in community awareness and action related to mental health but also a need for continued education in this area. Our participants seemed comfortable sharing their mental health struggles. Interviews showed that more students may have considered seeking help but encountered barriers. The

willingness to discuss their mental health challenges and seek help may be a sign of increased community awareness and a decrease in stigma related to mental health (Lipson et al., 2019). However, considering that some participants chose not to participate in mental health services due to negative perceptions about the quality of mental health care they may receive indicates a need for further community awareness, particularly geared toward marginalized populations.

Fourth, our findings support the need for institutions to develop students' mental health knowledge and self-regulatory behaviors. Many of our participants shared that they developed their own strategies to foster their mental health. Participants likely would have benefitted from having learned these behaviors prior to the pandemic. Thus, to foster students' well-being, institutions should proactively develop students' self-regulatory behaviors and mental health knowledge.

Fifth, our findings underscore the importance of effective access to mental health services. Institutions need to continue working on removing barriers to care. Counseling centers at higher education institutions have struggled for decades to provide adequate services to meet increasing demands (Hardy et al., 2011; Sapadin & Hollander, 2021). The COVID-19 pandemic has highlighted the importance of such services. Removing barriers should focus not only on increasing access but also providing adequate training for counselors to serve an increasingly diverse student body (Koo & Nyunt, 2020; Ridley et al., 2021).

Finally, our last implication for practice is unrelated to Baik and colleagues' (2016) framework and may constitute an addition to the framework. Participants in our study had mixed feelings about the way in which information about mental health resources was shared. Our findings point to the importance of personal outreach, as some participants questioned the authenticity of mass emails, and such communication did not seem to lead to student buy-in. Faculty and staff could play an important role in reinforcing institutional messages as well as providing individualized attention and personal referrals to mental health resources. Such personal outreach may be more effective in overcoming preconceived notions students may hold about the availability or accessibility of mental health resources and reinforce a sense of care about students' well-being by institutional agents.

### **Conclusion**

The COVID-19 pandemic negatively impacted the well-being of undergraduate students at U.S. higher education institutions. Our study highlighted not only the decrease in social-psychological well-being but, more importantly, the unique challenges students encountered and how students navigated these challenges. This information provides insights into ways that institutions can foster students' well-being during and beyond the COVID-19 pandemic. While challenges students encountered related to academics, social isolation, and monotony were exacerbated due to the pandemic, many students encounter these barriers during other times as well. Strategies learned from experiences during the COVID-19 pandemic can help institutions be more proactive in fostering students' mental health.

Our findings also indicate that Baik and colleagues' (2016) Framework for Promoting Student Mental Wellbeing in Universities may be an effective tool for institutions striving to proactively foster student mental well-being. Institutions should consider adopting this framework as they evaluate how to utilize what we learned from the COVID-19 pandemic. By fostering students' well-being, institutions will not only promote student retention and success but can also promote mental health awareness in society at large.

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