



Differential COVID-19 Pandemic Impacts on Community College and University Student Experiences

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Master's Thesis Spring 2023

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Abstract

The COVID-19 pandemic changed the lives of many college students by affecting their academic, social, and well-being experiences. These experiences vary widely between different higher education institutions and structures, such as between two-year community colleges and four-year universities. This study aims to understand how the pandemic differentially impacted the academic, social, and well-being experiences of community college and university students by identifying significant qualitative themes recurring across these experiences. The present study uses qualitative content analysis to analyze the open-ended responses of 357 college students from higher education institutions in the California Bay Area. The results suggest that the pandemic had an impact on the following domains of academic life: academic performance, focus and attention, motivation, technical difficulties, adjustment to the learning environment, social connection, and mental health. Further, the pandemic had an impact on the following domains of social life: ability to maintain existing relationships, ability to form new relationships, perceived sense of social support, loneliness, social isolation, and mental health. Lastly, the results indicate that the pandemic had an impact on the following domains of well-being: depression, anxiety, stress, loneliness, and self-esteem. Our results demonstrate that the COVID-19 pandemic correlates with largely negative impacts to the academic, social, and well-being experiences of both community college and university students. Interestingly, community college and university students expressed different reasons for these impacts, raising noteworthy insights about the significant roles stable learning environments, social connection within academic spaces, and support systems that sustain student well-being can play in response to immense and traumatic change. Overall, the results of this study underscore the significance of identifying differential impacts between community college and university students as well as developing supportive educational, social, and psychological well-being resources that equitably assuage the negative effects of the pandemic.

Introduction

The COVID-19 pandemic brought immense change to the ways we exist in the world. The acute respiratory syndrome COVID-19, caused by the contagious coronavirus (SARS-CoV-2), brought the closure of most public spaces (Bendavid, Oh, & Ioannidis, 2021). This transition was defined by an extensive period of isolation and adjustment, bringing consequences on many groups. One group that experienced a great shift in environment, routine, and lifestyle during a critically transformative period of their lives was college students. The pandemic posed a great challenge to education systems that rely on in-person learning (Daniel, 2020), and the transition from the customary classroom to an online learning space came with both advantages and disadvantages. While online learning is more inclusive for transportation-restricted students, it may also diminish the academic, social, and well-being experiences of students enrolled in it.

The pandemic physically changed the classroom environment. Opportunities to socialize with peers and connect with instructors were dictated by the boundaries of digital platforms that replaced classrooms; social interaction was limited by the affordances of the new online environment as well as the technological literacy capacities of instructors. Minimized interaction, in turn, may have shaped student social connectedness, extraversion, and confidence in the classroom and in social spaces. Research has suggested that young adults who thrive in highly-collaborative environments struggled with heightened anxiety and depression during the pandemic (Robb et al., 2020).

Even prior to the pandemic, college student experiences vary widely in access to education, mental health resources, support, and social connection. Both university and community college students come from unique backgrounds. Research notes differences in

institutional support systems and resource access between community colleges and universities (Gibson et al., 2011). The pandemic, therefore, could potentially exacerbate these inequities for different student populations and ultimately shape their academic, social, and well-being lives (Marler et al., 2021). It is imperative that researchers devote study to exploring the depth of impacts on diverse college student populations.

Community College vs. University

It is necessary to understand the distinctions between community colleges and universities as higher education institutions when contextualizing the findings of this study. Community colleges are two-year junior college institutions that serve diverse populations of students and provide a wide variety of educational programs to receive continuing education and technical training, diplomas and associates degrees, and the opportunity to gain transfer credits for high school students or recent graduates (Clotfelter et al., 2013). They are oftentimes government-funded and offer “open enrollment” to high school graduates, making these institutions non-selective and accessible for many students. Attending community college before transferring to a university after earning an associate degree is widely considered to be a less costly pathway to higher education than going straight to a four-year university. Community colleges also boast of programs that accommodate non-traditional students, such as parents, people with full-time jobs, and commuter students. In contrast, universities are higher education institutions that offer four-year undergraduate and graduate degrees. Many universities offer a variety of opportunities for students beyond academic programs, such as extracurricular activities and athletics, robust social environments, and residential on-campus living options. Further, universities are more selective and can be much more exclusive and expensive than community colleges. Observing these crucial differences in higher education structures, scholars can explore

the starkly different academic, social, and well-being experiences of students that attend community colleges from those at universities. This research seeks to understand these differences and how they were uniquely impacted by the pandemic.

Academic Life

Because the pandemic closed campuses, many schools resorted to a distance learning format of instruction. These changes introduced students to new structures of synchronous and asynchronous online learning. Distance Learning Theory (DLT), developed by Desmond Keegan, states that “the distance learning system must artificially recreate the teaching-learning interaction and reintegrate it back into the instructional process” in order to sustain effective education (Sherry, 1995). This requires that high-quality distance learning environments incorporate elements of a real classroom experience– the exchange of course material from educator to student, opportunities to interact with others, social presence of peers, and ways to demonstrate learning through assignments and assessments (Gunawardena & McIsaac, 2013). When these critical classroom features are removed from the educational environment, as they were during the initial lockdown periods of the pandemic, DLT informs us that the quality of the educational experience (instruction, interaction, and assessment) could drop. Ever-advancing and expanding technology facilitates teaching and learning online; affordances of the distance learning structure and mediation influence how the learner is able to interact, engage, and experience within this digital environment. This consequently translates into how successful they perform academically. A study by Marler et al. (2021) found that both academic motivation and sense of belonging were negatively impacted by COVID-19-related distress. Still, there are many facets of the educational experience impacted by the pandemic that go missed in the scholarship, including the ability of students to adjust to changes in the learning environment (i.e. from

in-person to online learning) during a worldwide pandemic as well as academic-related causes for worsened mental health. The present research, which utilizes a methodology that addresses these gaps in the research by reporting on the student experiences directly from their perspectives, supports work filling this gap and helps us better understand the specific ways the pandemic has altered students' academic lives.

Social Connectedness

Social connectedness is defined by how connected people feel to others (Seppala, 2014). Studies have shown that lack of social connection can yield detrimental health outcomes, with social isolation being a major risk factor for mortality (House et al., 1988). The pandemic posed great risk of decreased social connectedness in college students by limiting opportunities for learners to engage with their social and academic communities. In one study, more than 60% of students indicated that they were “very much or extremely concerned about their social connections” (Birmingham et al., 2021). Poorer social ties associated with greater social isolation and negative quality of interactions have been found to exacerbate distress brought about by the COVID-19 pandemic (Birditt et al., 2021). However, social connectedness is multilayered and can involve both one's ability to form new relationships as well as maintaining their existing ones. While scholarship exploring the pandemic impact on social connection has found correlations of negative impact, it fails to address the various ways and approaches individuals use to seek social connection. Additionally, contextualizing these questions within college student populations experiencing a global pandemic raises even more nuanced inquiries about how this impact manifests in these vulnerable groups. The present research contributes novel insights to the fields of social psychology and communication research by extracting the various ways social connection can be impacted by the pandemic.

Well-being

The World Health Organization (WHO) defines mental health as the following:

“a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” (WHO, 2014).

For this study, mental well-being is defined by one’s realization of potential, ability to cope with stress, ability to perform productive and meaningful work, and ability to contribute. Low measures of stress, depression, and anxiety, and high measures of social connectedness are factors that contribute to healthy well-being (Karademas, 2007).

Multiple factors can prevent students from understanding material, reaching out for help, or connecting socially with their peers. Several studies explored pandemic impact on well-being at the intersection of academic and social impacts. One study measuring levels of depression, anxiety, and stress among dental students enrolled in distance learning programs during the COVID-19 pandemic found that the learners experienced high levels of depression, anxiety, and stress during the COVID-19 pandemic; less than half of students were satisfied with distance learning and the severity of depression and stress was negatively correlated with satisfaction with remote teaching (Limeira et al., 2022). The study additionally concluded that heightened depression, anxiety, and stress levels were also significantly associated with gender, fear of contracting COVID-19, and if the student had a family member who had contracted COVID-19 recently. These confounding variables play a role in understanding student well-being during the pandemic.

Beck’s cognitive theory of depression states that depression is negatively correlated with academic performance, self-esteem, and perceived sense of self, the world, and the future (Beck, 1976). Additionally, the consequences of anxiety can introduce great difficulties into the lives of

students who may find it difficult to engage fully with course material, pay adequate attention, or feel emotionally capable to endure strenuous learning situations such as testing. While experiencing mild feelings of anxiety is quite typical and represents natural biological responses to new or challenging situations, intense anxiety can be overwhelming and inhibit student learning.

Additionally, feelings of anxiety may compound other feelings of distress, such as depression (Stavrakaki & Vargo, 1986). One study found that students experienced spiked anxiety levels during the start of distance learning when the shift to isolation took place (Hapsari, 2021). Much of the anxiety reported in the study was derived from worry about students' inability to keep up with the fast-paced learning environment of the virtual classroom. Other students cited difficulties with technology, challenges related to understanding the virtual delivery of material, and their own personal readiness for online learning, which incorporated more direct assessments of students in front of their peers.

College academic experiences during the pandemic in particular could involve heightened levels of stress due to the unfamiliar learning environment and style. One study found that the transition to distance learning styles of education increased stress levels from moderate to high by introducing challenges of heavy and unorganized workloads, poor or lack of standardized distance learning strategies, limited resources, and distracting study environments (Masha'al & Shahrour, 2020). A global pandemic may heighten stress for college students by reinforcing the stakes of academic performance or muddying the understanding of what is expected of students. Lack of communication, connection, or organization within a distance learning platform might peak worry about grades; studies have shown that receiving lower grades than anticipated contribute to students' stress levels (Parveen & Inayat, 2017). In addition

to academic stressors, college students undergo external pressures from a variety of sources, such as intrapersonal or environmental ones (Pfeiffer, 2001). The present research continues to explore these questions of pandemic impacts on student well-being through the qualitative accounts of student experiences.

The Present Research

Current scholarship is advancing our understanding of the degree to which the COVID-19 pandemic impacted college students. Additional research is necessary to provide grounding for the development and implementation of resources, support systems, and structures for students as they navigate a world adapting to great change. Moreover, identifying what ways the pandemic has differentially affected community college students from university students reveals any gaps of need between the two groups.

The results of this study contribute to the growing conversation and literature on pandemic impact on certain community groups. By doing this research, we can begin to understand what resources are necessary to aid students on different higher educational pathways and ensure they have equitable access to success. This informs the first research question:

RQ1: How did the COVID-19 pandemic impact college students and their college experience in terms of students' (a) academic life? (b) social life? and (c) well-being?

In asking this question, we aimed to understand the specific areas of impact college students experienced due to the COVID-19 pandemic. The academic, social, and well-being states of college students play significant roles in the overall livelihood of emerging adults pursuing higher education, and are thus worthy of research focus. Once the intensity of the pandemic impact is measured across both community college and university students, these

measures can then be compared in order to find differences in the scale of impact at these different higher education institutional levels. This develops the second research question:

RQ2: How did the COVID-19 pandemic differentially impact (a) community college students and (b) university students?

Method

Participants and Procedure

Participants were students enrolled at one university and two community colleges in the Western United States. Convenience sampling was employed via flyering and email recruitment on university and community college campuses. Participants were also recruited through their respective university and community college student research participation pools. The same survey was administered to both the university and community college students between April and October 2022 and was conducted online using the Qualtrics software. Overall, a total sample size of 357 respondents was obtained from the survey.

Two-Year Community College Students. Two-hundred and seventy-four of these respondents were in the community college student group. The mean age of respondents in the community college group was about 22 ($M = 21.94$, $SD = 5.59$). The participant population in this group was also majority female (66.8%), while males comprised 28.1% of the sample and 5.08% identified as non-binary, transgender, or other. In the community college group, 94 cases were removed from the dataset because they were incomplete.

Four-Year University Students. Eighty-five of the respondents were in the university student group. The mean age of respondents in this group was about 20 ($M = 20.35$, $SD = 1.44$). The participant population in this group was majority female (75.64%), while males comprised

24.36% of the sample. In the university group, 12 cases were removed from the dataset because they were incomplete.

After data cleaning, the total sample size for analysis was 251 participants: 71 participants in the university group, 180 participants in the community college group.

Measures

Demographics. Data were collected on a number of demographic variables including gender, age, race, socio-economic status, and academic classification year.

COVID-19 Pandemic Impacts. Participants were asked how the COVID-19 pandemic impacted them and their college experiences in terms of their: Academic life (e.g., your classes, coursework, major, GPA); Social life (e.g., your relationships, social support, sense of community; and Well-being (e.g., depression, anxiety, stress, loneliness, happiness). Participants responded to these questions in an open-response format, where they submitted their answers via text box.

Qualitative Content Analysis Strategy

This study used the qualitative content analysis method to analyze the open-ended responses included in a larger quantitative study. Qualitative content analysis is defined as the process of organizing qualitative data in efforts to identify emerging categories, concepts, and themes. The research team manually annotated all open-ended responses collected. All responses were de-identified and were extracted, read, and initially categorized via inductive processes. This open coding approach afforded the opportunity to create our own coding classifications based directly on the open-ended responses. A unique thematic coding scheme was developed for each of the three open-ended questions by organizing the data set into patterns observed in the responses, creating an initial codebook of classifications. The researchers held several

meetings to discuss the themes, collapse infrequent categories by combining related topics, remove duplicate topics, evaluate thematic concurrence by reviewing the responses a second-time, and operationalize and finalize the codebook (Table 1). The author and two research assistants in the Stanford University Media and Personality Lab independently manually annotated all responses collected in the study and categorized them into identified topics in the thematic coding scheme. Discrepancies were resolved via prolonged discussions.

Data identified using the overall impact scheme were coded into one or two of the three categories. Since several individuals noted both positive and negative impacts, coding of an individual's response into the thematic pattern scheme was not restricted to one code. The open-ended responses from the aforementioned overall impact scheme and the thematic patterns scheme were subsequently collapsed into the three domains addressed by the question: (1) academic life, (2) social life, and (3) well-being. To reflect the experiences of college students by their nuanced identities, parentheses that follow quotations denote the respondent's gender and age.

Interrater Reliability

Interrater reliability (average pairwise percent agreement, Fleiss' Kappa, expected agreement, average pairwise Cohen's Kappa, and Krippendorff's Alpha) was calculated computationally. Table 3 reports interrater reliability for each variable coded across the data set. For the university participant data, the average pairwise percent agreement across all of the codes was 92.04%. For the community college participant data set, the average pairwise percent agreement across all of the codes was 90.23%. These average measures indicate high interrater reliability amongst the three raters analyzing and coding the qualitative data comprising the data set used in this study. Therefore, in order to have a single data set available for analysis, the

discussion of these results utilizes the mode (i.e. the most repeated value in the observed data set) for each of the raters' coding. Each text entry was coded as either 1 (yes) or 0 (no) in regards to whether an impact was present or not.

Additionally, the computation of interrater reliability included the calculation of Fleiss' Kappa and average pairwise Cohen's Kappa. Across the variables, a large portion of calculated kappa values are significantly low, indicating low interrater reliability despite the same variables possessing high average pairwise percent agreement. This is caused by the kappa paradox. The kappa paradox occurs when the prevalence of a rating in the population is very high or low (Cunningham, 2009). As one can see in this particular data set, the rating of 0 (no) was coded for many of the categories. This led to the values of kappa for several of the variables indicating poor reliability even with a high observed proportion of agreement amongst the three raters. Researchers recommend reporting several other values that illustrate interrater reliability in addition to the kappa to address this paradox. As a result, Table 3 reports average pairwise percent agreement, expected agreement, and Krippendorff's alpha in addition to the Fleiss' kappa values (for reliability measures for more than two raters) and the average pairwise Cohen's kappa values.

Results

The qualitative content analysis sought to identify themes across college students' academic experiences, social experiences, and well-being due to the pandemic. This involves two levels of analysis: identifying (1) whether the *overall impact* was positive, negative, or neutral/unclear, and (2) the *thematic patterns* observed within this impact.

RQ1: How did the COVID-19 pandemic impact college students and their college experience in terms of students': (a) academic life? (b) social life? and (c) well-being?

COVID-19 Pandemic Impact on College Students' Academic Lives

The qualitative content analysis of responses addressing the COVID-19 pandemic impact on the academic lives of college students revealed the following seven reemerging thematic areas of impact: academic performance, focus/attention, motivation, technical difficulties, adjustment to the learning environment, social connection, and mental health. Each of these themes is listed and operationalized in Table 1. Table 2 lists the overall impacts of the pandemic on the academic lives of both community college and university students.

Overall Impact

Overall, for both the community college students and the university students, the pandemic had an overall negative impact on the academic lives of college students. The percent reported shows the frequency of the overall impact scheme codes within the data for the community college students: (1) positive impact (18.33%), (2) negative impact (46.67%), and (3) neutral, unclear, or N/A impact (36.11%). 84 total participants in the community college group discussed negative impacts of the pandemic on their academic lives. Additionally, the percent reported shows the frequency of the overall impact scheme codes within the data for the university students: (1) positive impact (14.09%), (2) negative impact (53.52%), and (3) neutral, unclear, or N/A impact (33.8%). 38 of the total university participants acknowledged the pandemic's negative impact on their academic lives.

Theme I: Academic Performance

The thematic area of impact coded for academic performance encompassed how the pandemic affected the students' academic achievement in coursework. Of the community college group, 24 of the respondents that reported negative impact (28.57%) cited academic performance

as an area of direct effect. According to one of the participants, staying on top of work proved to be an issue:

“It was difficult to keep up with the work and to maintain my GPA. It was also challenging to stay on task and motivated during the pandemic.” (Female, 21)

For the university group, only 7 participants of those that experienced negative impact (18.42%) stated the pandemic affected their academic performance. One participant noted the differences in coursework quality between in-person and distance learning:

“My GPA took a major hit, I felt that I got way less from my classes, and I felt that the course work was not as good as in person.” (Female, 23)

Theme II: Focus and Attention

Responses that explored changes in a student’s ability to concentrate on the completion of tasks were coded as impact to focus and attention. For the community college group, 19 respondents that experienced negative impact (22.61%) indicated the pandemic affected their ability to focus or pay attention. One student explained how environment, comprehension, and engagement were intertwined:

“Difficulty concentrating on course work, trouble finding a quiet place to focus, difficulty learning the material, unable to have hands-on experiences.” (Female, 24)

Focus was the most common stated area of negative impact for the university students, with 9 of the 38 participants (23.68%) citing negative consequences affecting their ability to focus. One participant discussed how simultaneous changes to their academic planning, mental health, and isolation confounded difficulty in focusing:

“My major/course plan had to undergo drastic changes because many of the classes I had originally planned on taking were canceled. My mental health suffered as a result of extreme isolation, and this manifested as a loss of motivation and focus on my schoolwork. My GPA suffered as a result.” (Female, 21)

Theme III: Motivation

In contrast to one's ability to pay attention to finishing a certain task, impact to motivation was coded as a change in student's motivation to pursue plans, tasks, or future goals. For the community college students, 11 participants of the total that reported negative impact (13.1%) experienced a decrease in motivation due to the pandemic. One student explained how lack of motivation slowed down their academic progress:

"I got unmotivated and dropped out for a couple of months and kept taking breaks when I could have finished earlier." (Female, 22)

Further, the university group had 14 participants out of the total that stated negative impact (36.84%) reported change in motivation. One respondent discussed how isolation discouraged their course engagement:

"My motivation to do well in academics took a slight dip since it was difficult to be engaged in coursework online when you feel so isolated from the others in your classes." (Female, 19)

Theme IV: Technological Difficulties

Only one student in the total university group stated that they experienced trouble with technological difficulties because of the pandemic. No students in the community college group cited any difficulties. Due to such little evidence, this theme will not be explored further.

Theme V: Adjustment to Learning Environment

Responses that pointed to difficulty adjusting to a new learning environment explored how well the student was able to adapt to changes in their environment, style of learning, or stage of education. This may include moving to an online format of learning after experiencing a period of time of in-person learning, moving offline after experiencing a period of time in distance learning, or taking steps to complete their education (such as signing up for classes). For the community college group, 24 of the number of respondents that expressed negative impact

(28.57%) acknowledged difficulty adjusting to a new learning environment. One participant stated that the shift from in-person to distance learning was particularly difficult:

“I had a hard time transitioning to online and remote classes, I am an in person hands on learner so that really affected me.” (Female, 19)

For the university group, only 8 of the portion of participants that demonstrated negative impact (21.05%) acknowledged difficulty with this adjustment. One participant explained how the transition back to in-person learning after distance learning presented some difficulty:

“The pandemic changed the way I engaged with coursework and the return to 'regular' has felt extremely difficult.” (Female, 20)

Theme VI: Social Connection

Responses coded for social connection changes within a student’s academic life explored changes in a student’s ability to interact or communicate with others in the classroom space. This may include with peers, projectmates, instructors, counselors, resources, or other individuals or systems of academic socialization. Within the community college group, 8 participants of the total that discussed negative impact (9.52%) mentioned changes in their social connectedness within academic spaces. One participant stated how loss of friends correlated with poorer academic performance:

“I lost most of my friends who we were with in the same class. This made me drop drastically in my school work.” (Female, 19)

Within the university group, only 4 respondents of those that indicated negative impact (10.53%) experienced decreased social connection within academic spaces. One participant discussed lack of personal connection impacting their academics:

“I felt a lack of personal connection with professors and classmates that made it hard to stay motivated for academics.” (Female, 19)

Theme VII: Mental Health

In addressing how the pandemic impacted their academic lives, responses that expressed a change in a student's self-perceived well-being (depression, anxiety, stress, etc.) due to their experience with education during the pandemic were coded as impacts to their mental health. Of the community college students, only 3 participants stated that the pandemic negatively impacted their mental health due to its effect on their academic lives. In contrast, 2 participants of the university group reported the same. Due to such little evidence, similarly to technological difficulty, this theme will not be explored further.

COVID-19 Pandemic Impact on College Students' Social Lives

The qualitative content analysis of responses addressing the COVID-19 pandemic impact on the social lives of college students revealed the following six reemerging thematic areas of impact: ability to maintain existing relationships, ability to form new relationships, perceived sense of social support, loneliness, social isolation, and mental health. Each of these themes is listed and operationalized in Table 1. Table 2 lists the overall impacts of the pandemic on the social lives of both community college and university students.

Overall Impact

In considering how the pandemic impacted their social lives overall, participant responses indicated either a positive, negative, or neutral impact. The percent reported shows the frequency of the overall impact scheme codes within the total data for the community college students: (1) positive impact (10.56%), (2) negative impact (62.78%), and (3) neutral, unclear, or N/A impact (35.56%). 113 of the 180 participants (62.78%) discussed how the pandemic negatively affected their social lives. In contrast, the percent reported shows the frequency of the overall impact scheme codes within the entire data set for the university students: (1) positive impact (16.9%),

(2) negative impact (61.97%), and (3) neutral, unclear, or N/A impact (16.9%). 44 of the total participants in this population identified a negative impact on their social lives due to the pandemic.

Theme I: Ability to Maintain Existing Relationships

Respondents that experienced an impact to their capacity to support or continue their prior or current relationships were coded under this theme. For the community college group, 42 of the portion of participants that indicated negative impact (37.17%) mentioned negative impact to their ability to maintain existing relationships. As an example, one respondent wrote:

“My social life had gotten worse as I stopped talking to quite a bit of people.” (Male, 19)

For the university group, 7 of those that admitted negative impact (15.91%) discussed challenges to their ability to maintain existing relationships. One participant acknowledged the difference between online and in-person interactions:

“I feel like during the quarantine period I spent most of my time alone and only really interacted with others through social media which made it difficult to uphold most of my relationships since things are different online than they are in person. Also I feel as though my social skills declined making it difficult to be comfortable interacting with others once things started opening up again.” (Female, 19)

Theme II: Ability to Form New Relationships

23 of those in the community college group that experienced negative impact (20.35%) expressed difficulty in forming new relationships as a result of the pandemic. One individual reflected on how the isolation of the pandemic inhibited their social skills:

“... Once at college, it was really hard to actually make friends since my social skills were already bad but with the pandemic, it got worse.” (Female, 18)

For those in the university group, 17 participants (38.64%) stated they experienced a negative impact on their ability to create new relationships. One respondent wrote about a change in their social nature:

“I have become very anti-social.” (Female, 20)

Theme III: Sense of Social Support

Respondents that stated a change in their perception of support provided by their social circles were coded as a thematic impact to their sense of social support. Of the community college group, 11 individuals out of those who indicated negative impact (9.74%) discussed decrease in their perceived sense of social support. One participant wrote about perceived loss of community:

“I became distant towards many people in my life, and lost all sense of community...”
(Female, 19)

As for the university group, 7 of the participants that experienced negative impacts (15.91%) mentioned perceived loss of social support. One respondent observed the confounding negative impacts of relationship formation and perceived sense of social support:

“It was difficult to create relationships, find social support, and have a sense of community.” (Female, 19)

Theme IV: Loneliness

Impact to loneliness was coded as any change in a student’s self-reported measures of loneliness. This theme was conceptualized solely within responses that addressed pandemic impact to respondents’ social lives. For those within the community college group, 40 respondents out of those who experienced overall negative impact (35.4%) pointed to increased loneliness. One participant shared how the pandemic has impacted not only their platonic relationships, but also their romantic pursuits as well:

“I stopped seeing a lot of my friends during the pandemic. I haven't dated at all since the pandemic started and I've been feeling lonelier. There are less opportunities to meet people.” (Male, 30)

For the university students, only 4 respondents out of those that indicated negative impact (9.1%) expressed increased loneliness as the cause for the negative impact on their social lives.

One participant wrote simply of their diminished social circle:

“Lost a lot of friends, I have been very lonely.” (Male, 20)

Theme V: Social Isolation

Responses that mentioned a change in their capacity to meet, see, be, or interact with other individuals meaningfully and intentionally in the same physical environment were coded as social isolation. Of the community college students that indicated negative impact, 35 (30.97%) reported social isolation as a cause. One respondent experienced the emotional impact of isolation:

“I felt trapped in my home.” (Female, 21)

For the university group, 16 of the total respondents that reported negative impact (36.36%) pointed to increased social isolation. One participant expressed:

“Social life declined. We were not allowed to see people for a long time.” (Female, 20)

Theme VI: Mental Health

Lastly, mental health was coded within responses that addressed pandemic impact on social lives as any change in one's self-perceived well-being (depression, anxiety, stress, etc.) due to their social experiences during the pandemic. Of the community college students that indicated overall negative impact, 6 (5.31%) mentioned a decrease in their mental health. One participant wrote about their experience with depression and fear:

“I got depressed when the pandemic first hit and felt very alone because I couldn't be around all my family members or friends. It was a scary time overall.” (Female, 22)

Of the university students that indicated overall negative impact, 5 (11.36%) reported worsening mental health. One respondent stated how their loss of social relationships worsened their mental health:

“I ended up having a quarter in which I was really struggling to keep up my mental health as most of my relationships disappeared.” (Male, 21)

COVID-19 Pandemic Impact on College Students’ Well-being

The qualitative content analysis of responses addressing the COVID-19 pandemic impact to the well-being of college students revealed the following five reemerging thematic areas of impact: depression, anxiety, stress, loneliness, and self esteem. Each of these variables is listed and operationalized in Table 1. Table 2 lists the overall impacts of the pandemic on the well-being of both community college and university students.

Overall Impact

The percent reported shows the frequency of the overall impact scheme codes within the data for the community college students: (1) positive impact (11.67%), (2) negative impact (71.67%), and (3) neutral, unclear, or N/A impact (20.56%). Notably, the pandemic gave rise to a significantly negative impact on the well-being of this population, with almost three-quarters of college students in this group discussing a decrease in psychological well-being.

The percent reported shows the frequency of the overall impact scheme codes within the data for the university students: (1) positive impact (14.09%), (2) negative impact (67.61%), and (3) neutral, unclear, or N/A impact (19.72%). Similar to the community college students, the university students also reported a highly negative impact to their well-being due to the pandemic.

Theme I: Depression

The most common well-being measure that was mentioned widely across the community college group responses that reported negative impact was depression, with 46 out of 129 (35.66%) participants citing increased depression due to the pandemic. One individual wrote about various stressors such as family health and financial stability as reasons for depression:

“I got really depressed and stressed. My family's being was my number one concern and for myself, it was a form of income because I still had bills and rent to pay.” (Female, 22)

For the university students, depression was mentioned by 14 of the total participants that demonstrated overall negative impact (29.17%). One participant stated:

“Was depressed for some portion of the pandemic.” (Female, 21)

Theme II: Anxiety

Of the community college group that indicated negative impact, 38 (29.46%) expressed increased anxiety during the pandemic. One participant wrote about their intersectional experience with depression, anxiety, sociability, and isolation:

“I was very depressed and anxious and started to lose my people skills and become more isolated.” (Female, 19)

The university group indicated a larger, negative impact to their self-reported measures of anxiety, with 21 of the 47 participants who mentioned negative impact (43.75%) stating that they experienced an increase in anxiety. One participant wrote about increased anxiety caused by unknown future stability:

“I sometimes feel very stressed and anxious to the extent that I feel like it's hard to breathe, especially when a deadline's coming up.” (Female, 21)

Theme III: Stress

Of the community college group that experienced overall negative impact, 44 (34.11%) mentioned increases in stress. One participant wrote about stress caused by the changing health and safety conditions of their environments:

“I was overwhelmed due to work and covid regulations.” (Female, 23)

For the university group, of those that demonstrated overall negative impact, only 9 (18.75%) reported stress as a reason for this impact. One respondent expressed:

“I felt stressed, depressed, and anxious about the whole world situation.” (Female, 21)

Theme IV: Loneliness

14 of those in the community college group mentioned loneliness as a reason for the overall negative pandemic impact on their well-being (10.85%). One participant stated:

“I definitely felt more lonely and a bit depressed since I could not meet up with friends. At the beginning of the pandemic, my self-esteem also lowered a lot.” (Female, 20)

For those in the university group, 15 respondents of the total that expressed an overall negative impact on their well-being caused by the pandemic (31.25%) mentioned increased loneliness. One respondent wrote about the worst time of their life:

“Felt more isolated, lonely. Covid made my entire freshman year online and it was the worst time of my life.” (Female, 20)

Theme V: Self-esteem

Lastly, 14 community college respondents (10.85%) indicated overall negative impact and decreased self-esteem during the pandemic. One individual wrote about loneliness and self-esteem:

“I have felt very lonely and my self-esteem has dropped very low.” (Female, 18)

Of the university students that experienced overall negative impact, 4 (8.33%) also expressed decreased self-esteem as a cause. One respondent explained how additional, external factors confounded worsened self-esteem:

“I lost confidence during the pandemic because I gained weight, lost friends, and didn't have access to many opportunities. I felt like a failure because I didn't have an internship, but COVID made that worse...” (Female, 21)

RQ2: How did the COVID-19 pandemic differentially impact (a) community college students and (b) university students?

Interestingly, though the community college and university groups mentioned many of the same recurring themes as areas of impact brought about by the pandemic in their academic lives, social lives, and well-being, on average, the two populations indicated different categories as highest impact areas. This informs us that the COVID-19 pandemic differentially impacted community college and university students.

The findings highlight how specifically this impact manifests for each of the groups in their academic lives, social lives, and well-being. For example, while the community college students stated that they experienced the largest negative impacts to their academic performance and ability to adjust to new learning environments, with 24 participants saying they experienced decreases in both these themes (13.33% of the total population), the university students most commonly mentioned negative impacts to their motivation (19.72% of the total population).

In regard to the pandemic's impact on students' social experiences, the community college students cited difficulty to maintain existing relationships as the most commonly shared cause of negative impact (23.33% of the total population). On the other hand, the university students most often identified difficulty forming new relationships due to the pandemic's social lockdowns as an area of significant negative impact (23.94% of the total population).

Across well-being impacts brought about by the pandemic, the community college group on average experienced the largest impact to self-reported measures of depression (25.56% of the total population). Meanwhile, the university group on average experienced the largest impact to self-reported measures of anxiety (29.58% of the total population).

Significant Overall Negative Impact to Well-being

Strikingly, across both community college and university groups, students reported significantly more overall negative impacts to their well-being than their academic and social lives. Specifically, while 46.67% of the community college students indicated negative impacts to their academic lives and 62.78% to their social lives, 71.67% indicated negative impacts to their well-being. Similarly, while 53.52% of the university students reported overall negative impact to their academic lives and 61.97% to their social lives, 67.61% reported overall negative impact to their well-being.

Further, many participants acknowledged several areas being negatively impacted together. Oftentimes, increases in one measure, such as depression, correlated with increases in others, such as anxiety, stress, and loneliness, as conveyed by one community college respondent:

“Loneliness, stress, anxiety, and depression were spiked high during this time because of isolation, home life, the fear of missing out, and such.” (Female, 20)

Another community college participant echoed similar sentiment:

“My well-being declined tremendously. Stress, happiness, anxiety, loneliness, depression, and self-esteem all got worse than they already were. Life just got a bit harder, but I am continuing my therapy so yeah.” (Female, 18)

Some students blatantly stated various areas of impact, like this university participant:

“Stress, loneliness, and depression felt for sure.” (Female, 20)

Overall Positive Impacts

Moreover, while both groups largely indicated overall negative impacts in academic, social, and well-being measures, a portion of respondents disclosed how the pandemic positively impacted their experiences. Of the community college group, 18.33% stated overall positive impacts to their academic lives, 10.56% to their social lives, and 11.67% to their well-being. Of the university group, 14.09% stated overall positive impacts to their academic lives, 16.9% to their social lives, and 14.09% to their well-being. For some individuals, the pandemic afforded the time and space outside of normal routine to reprioritize, cater to, or pay attention to other facets of life that might have been previously ignored. One community college participant explored how distance learning supported their academic performance and studying style:

“It helped me pace myself and learn a new way of studying. Helped me overall.” (Male, 18)

One university participant expressed that the conditions of the pandemic may have even contributed to increased sense of support and community during a time of distress, isolation, and struggle:

“I would say the COVID-19 pandemic strengthened the sense of support and community within my friends. Although physical meet-ups became less frequent, it became a test of creativity on how our friend groups could meet and spend virtual time together. Within the community in my home country, there was also a stronger sense of care and support for one another.” (Male, 24)

Lastly, one community college student explained that the pandemic provided space to explore themselves:

“I think COVID-19 has helped a lot in developing my personality and self-esteem. I feel more confident and in tune with myself.” (Female, 20)

Overall Neutral Impacts

Additionally, a significant portion of participants indicated neutral impacts. Of the community college group, 36.11% experienced neutral or unclear impacts to their academic lives, 35.56% to their social lives, and 20.56% to their well-being. Of the university group, 33.8% expressed they experienced neutral or unclear impacts to their academic lives, 16.9% to their social lives, and 19.72% to their well-being. This implies that the pandemic inflicted neither a positive nor a negative impact on the student. For example, one university student shared that, though there were moments that lacked enjoyment, they had access to opportunities to negotiate their well-being:

“There were no major implications of COVID-19 on my well-being. At times, there would be a feeling of fatigue and boredom, as opportunities to socialize were limited. However, I was able to pursue new interests (try new sports), and this helped alleviate feelings of boredom or stress from work.” (Male, 24)

When studying how drastic changes in our environments impact different groups of people, it is imperative to take into consideration how varying levels of privilege, access, and support mediate negative effects. Furthermore, these neutral findings may suggest how other factors can buffer negative impacts brought about by the pandemic.

Discussion

Understanding the COVID-19 impact on college students, at both the community college and university level can reveal important insight into the diverse ways impact manifests in uniquely different structures of higher education. Across both the community college and university groups, students disclosed various ways in which the pandemic had an overall negative impact on their academic, social, and well-being experiences. These findings align with current scholarship reporting similarly negative impacts on this population (Enriquez et al., 2021; Jones et al., 2021; Li et al., 2021; Son et al., 2020).

Academic, Social, and Well-being Experiences of Students

The pandemic negatively impacted the academic lives for nearly half of the group of community college and university students in this study. Community college students acknowledged the deepest negative impacts to their academic performance as well as their ability to adjust well to the new learning environment. The results indicate a unique difference in how academic performance may be negatively influenced at the community college level compared to the university level. Contributing factors to this difference may be differential access to academic support resources across community colleges and universities, lifestyle differences between student populations, institutional funding, classroom size, or coursework rigor. These differences between community colleges and universities ultimately shape how the educational pathway is experienced, particularly during a global pandemic.

Keegan's Distance Learning Theory can provide a framework for educators in community college spaces to navigate sudden shifts in environment and mitigate some of the negative impacts of global transformation, such as decreased academic performance in community college students (Sherry, 1995). Keegan emphasized the significance of high-quality recreations of the teaching-learning interaction in order to simulate the same transfer of learning that would occur within an in-person classroom. These findings reinforce the importance of the real classroom experience and the impact the stability of environments can have on the academic performance of community college students. Thus, distance learning platforms, materials, and curricula can prioritize elements of the educational experience that strive to facilitate teaching and learning online in the most authentic ways. This may involve introducing pedagogical strategies that embolden students' sense of belonging, incorporate face-to-face interaction, and implement collaborative or experiential learning strategies in the community college classroom.

Additionally, university students most commonly expressed negative impacts to their motivations as a result of the pandemic. This finding may suggest slight differences in how motivation and learning are differentially self-regulated among different types of college students. Exposure to a variety of cognitive and motivational strategies embedded within student culture across different community college and university institutions may differ. One study concluded that different aspects of students' motivational regulation were related positively to their goal orientation and that self-regulated learners adapt or modify their motivational strategies to fit situational demands (Wolters, 1998). For example, lifestyles of community college students can differ drastically from those of university students, implying differences in priorities, responsibilities, and experiences progressing through higher education and their motivations for doing so. These assumptions call for future research pursuing how students, a part of diverse college environments and communities, approach problem solving.

It is clear that the pandemic negatively impacted social connection by increasing isolation and decreasing the quality of interactions between people. Community college students stated that the most common area of negative impact was their difficulty maintaining existing relationships, while university students expressed the most common negative impact to their ability to create new relationships. Observing the ways this impact manifested in community college and university students raises questions about the role of community-based residential living settings at universities. The loss of academic classroom communities was accompanied by the loss of social residential communities, which may have exacerbated the difficulty of developing strong social ties that were already under strain.

One past study highlighted how, compared to students who live off campus, residential students have significantly higher levels of involvement in activities outside of class, interaction

with faculty and peers, and satisfaction and institutional commitment (Pike, 1999). For example, in a Mount Wachusett Community College blog post comparing the pros and cons of community colleges and universities, Carignan acknowledged how community college universities often cater to commuter students and do not typically offer on-campus housing (Carignan, 2021). One study exploring the social ecology of university student housing residential spaces concluded that the physical design features significantly affect the “degree of commitment students feel for one another, patterns of interaction and emotional support, and level of involvement in organizational functioning” (Wilcox & Holahan, 1976). Perhaps the sudden loss of these customary social spaces significantly impacted the ability of university students in a way to which community college students could not relate, not having experienced the social privilege of on-campus housing. These correlations between difficulty creating new relationships and interacting with new individuals on a daily basis through on-campus living for university students may not be seen in community college students since community colleges do not offer residential living spaces or the opportunities to become accustomed to the ease of forming and sustaining relationships within those communities. However, alongside this lack of experience can also be increased loneliness, as the findings of the present research indicated. Further isolation and absence of the valuable opportunities community college students did have to connect with other learners could have amplified the loss of social interaction and opportunity to maintain existing relationships.

Additionally, it is important to note that loneliness and isolation are not the same phenomenon; they individually capture unique occurrences of the human condition (Perissinotto et al., 2019). To contrast the subjective feeling of loneliness from the social experience of isolation, we have defined the former as one’s self-reported measures of loneliness mentioned

directly in response to how COVID-19 impacted their social life, and the latter as one's physical and social capacity to meet, see, be, and interact with other individuals in the same environment. In other words, it is possible to be lonely while not being socially isolated as well as to be isolated from others without feelings of lonesomeness.

Lastly, both community college and university students indicated negative impacts to their well-being, specifically their depression and anxiety levels. Beck's cognitive theory of depression illustrates the ways that depression can be correlated with a variety of factors (Beck, 1976). Stavrakaki and Vargo (1986), additionally, acknowledge correlations between depression and anxiety. For college students at both community colleges and university institutions, one's mental health can have a profound impact on all aspects of campus life and student experience, including their physical, emotional, cognitive, and interpersonal functioning (Kitzrow, 2003). These findings raise considerable concerns regarding how the pandemic has negatively affected the well-being of college students, regardless of their institution. Thankfully, scholarship has begun exploring the depth of this impact across students. One essay highlighted two urgent priorities for addressing current college mental health needs: the development of strategies that increase and conventionalize equitable and accessible mental health services as well as intentional outreach to students with special circumstances (Liu et al., 2022). The findings concluded in the present research continue to draw attention to the growing mental health crisis facing college students today as they adapt to a world after the pandemic.

This research outlines the interwoven web of impact the pandemic had, and continues to have, on college students and underscores the need for high-quality, accessible, inclusive, and diverse mental health and well-being resources for learners. Universities and colleges are highly encouraged to respond effectively to these challenges that drastically affect their students. This

can involve active support at the institutional level to provide adequate funding and to adopt philosophical attitudes that treat student mental health as valid and the responsibility of everyone involved in higher education. Mental health resources implemented in campus life can also educate administrators and instructors about the importance of connecting students to vital counseling services and resources. Lastly, it is critical that these resources and spaces are inclusive, diverse, and are performing outreach to become accessible to the most vulnerable populations of students, including those from marginalized communities. It is imperative that education policy, pandemic preparedness, and higher education institutions pay close attention to this need and develop protocol to address the obstacles that hinder students' learning and growth both inside and outside of the classroom.

Limitations and Implications for Future Work

Although the findings of this study offer important insights about the impacts of the COVID-19 pandemic on students' academic, social, and well-being experiences, there are several limitations. Notably, the study sample was unbalanced. There was a significantly higher number of community college participants (n=180) compared to university participants (n=71). Because the university participant pool was substantially smaller, it may not be fully representative of university participants. Additionally, students recruited for the university population attended a nationally elite institution with access to pedagogical and financial resources that may moderate the intensity of impact on this particular sample of university students. Further, the data collected is from two community college universities and one university in one region of California and does not allow for comparisons with other regions or countries, where educational structures, expectations, social norms, and approaches to well-being differ. Hence with these limitations, we suggest future researchers replicate this study with a

more diverse sample, from different higher education institutions across broader geographic regions, to increase generalizability.

It is clear that a common experience of negative impact can be confounded by multiple interacting thematic variables. For example, many students revealed increased mental health challenges to multiple well-being outcomes, such as depression, anxiety, and stress. Future research may be advised to adopt a more intersectional model of analysis that provides frameworks for understanding how unique contexts and integrative agents can intensify negative impacts.

It is also possible that data saturation was not entirely met because the parent study was not focused explicitly on COVID-19 pandemic impact on college students' academic, social, and well-being experiences. Information gathered may have been different if pandemic impact was the primary topic of inquiry for the parent study. Moreover, the open-ended response structure of the quantitative survey format did not allow for clarification or follow-up questions to be asked in order to accurately understand any confusions in the writing of one's response. Thus, the findings of our study can be used by other scholars to ground applications of additional exploratory or conclusive research. An amendment to this study would instead utilize a semi-structured interview method of analysis to capture the nuances of student experiences through storytelling. Finally, the themes observed across the open-ended responses were not verified by the participants themselves for confirmation of accuracy.

Conclusion

College students, both at the community college and university level, experienced incredible change to their academic lives, social lives, and well-being due to the COVID-19 pandemic. This qualitative content analysis revealed the various significant and direct ways the

pandemic impacted students. Further, the emergent themes across participant responses varied in intensity and thematic area of impact between community college and university students.

Overall, college students experienced negative impacts to their academic lives, social lives, and well-being experiences. While more community college students conveyed their academic performance, ability to adjust to new learning environments, ability to maintain existing relationships, and self-reported measures of depression were most negatively impacted by the pandemic, more university students expressed experiencing negative impacts to their motivation, ability to form new relationships, and self-reported measures of anxiety.

By disclosing the breadth and depth of these experiences in this study, college students have highlighted the exact areas where support and resources are needed in order to ameliorate the negative effects of the COVID-19 pandemic. Institutions, advocacy groups, community partners, educators, and more are able to observe these areas of need for this population and to provide the various systems of academic, social, and wellness support for college students navigating a world forever transformed by a pandemic. Qualitative research methods such as the qualitative content analysis affords the opportunity to explore the nuance of student experience through their very own words. Now, it is imperative that these academic, social, and well-being experiences are considered throughout the development and implementation of equitable resources, accessible support systems, and necessary structures addressing the needs of all students pursuing higher education.

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Appendix

Table 1 Qualitative Content Analysis Codebook

Category	Thematic Area of Impact	Operationalization
Overall Impact	Positive	Clear benefit or improvement
	Negative	Clear consequences or challenges
	Neutral	No benefits or consequences noted, remained same as before
Academic	Performance	Change in how the student performed academically
	Focus and Attention	Change in student's ability to concentrate on the completion of tasks
	Motivation	Change in student's motivation to pursue plans, tasks, or future goals
	Technical Difficulties	Change in how technologically accessible learning was for the student
	Adjustment to Learning Environment	Change in how well the student was able to adapt to changes in their environment, style of learning, or stage of education (i.e. moving online after experiencing a period of time of in-person learning; moving offline after experiencing a period of time in distance learning; pursuing next steps after completing their education; taking steps to complete their education (signing up for classes), etc.)
	Social Connection	Change in student's ability to interact or communicate with others in the classroom space (peers, projectmates, instructors, counselors, resources, etc.) (mentioned in response to how COVID-19 impacted their academic life)
	Mental Health	Change in student's self-perceived well-being (depression, anxiety, stress, etc.) due to their experience with education during the pandemic

		(mentioned in response to how COVID-19 impacted their academic life)
Social	Ability to Maintain Existing Relationships	Change in student's capacity to support or continue their current relationships or those formed prior to the time period indicated
	Ability to Form New Relationships	Change in student's ability to create new relationships
	Sense of Social Support	Change in student's perception of support provided by their social circle
	Loneliness	Change in student's self-reported measures of loneliness (mentioned in response to how COVID-19 impacted their <i>social life</i>)
	Social Isolation	Change in student's capacity to meet/see/be/interact with other individuals meaningfully and intentionally in the same physical environment
	Mental Health	Change in student's self-perceived well-being (depression, anxiety, stress, etc.) due to their social experiences during the pandemic (mentioned in response to how COVID-19 impacted their social life)
Well-being	Depression	Change in student's self-reported experiences of depression
	Anxiety	Change in student's self-reported experiences of anxiety
	Stress	Change in student's self-reported experiences of stress
	Loneliness	Change in student's self-reported experiences of loneliness (mentioned in response to how COVID-19 impacted their <i>well-being</i>)
	Self-esteem	Change in student's self-reported experiences of self-esteem

Table 2 Results

Table 2.1 Pandemic's Overall Impact in Each Domain for Both Two-year and Four-year University Student Groups

Pandemic's Overall Impact	Community college student group (n=180)	University student group (n=71)
Positive impact to academic life	18.33% (n=33)	14.09% (n=10)
Negative impact to academic life	47.22% (n=84)	53.52% (n=38)
Neutral impact to academic life	35% (n=65)	32.39% (n=24)
Positive impact to social life	10.56% (n=19)	16.90% (n=12)
Negative impact to social life	58.89% (n=113)	61.97% (n=44)
Neutral impact to social life	35.56% (n=64)	18.31% (n=12)
Positive impact to well-being	11.67% (n=21)	14.09% (n=10)
Negative impact to well-being	71.67% (n=129)	67.61% (n=48)
Neutral impact to well-being	20.56% (n=37)	19.72% (n=14)

Table 2.2: Thematic Patterns Observed in Overall Impacts Within the Academic Domain

POSITIVE Pandemic Impact: Thematic Patterns in Academic Life	Community college students expressing positive pandemic impact (n=33)	University students expressing positive pandemic impact (n=10)
Academic Performance	39.4% (n=13)	40% (n=4)
Focus and Attention	3.03% (n=1)	10% (n=1)
Motivation	18.2% (n=6)	0% (n=0)
Technical Difficulties	0% (n=0)	0% (n=0)
Adjustment to Learning Environment	12.12% (n=4)	10% (n=1)
Social Connection	3.03% (n=1)	0% (n=0)
Mental Health	0% (n=0)	0% (n=0)

<i>NEGATIVE</i> Pandemic Impact: Thematic Patterns in Academic Life	Community college students expressing negative pandemic impact (n=84)	University students expressing negative pandemic impact (n=38)
Academic Performance	28.57% (n=24)	18.42% (n=7)
Focus and Attention	22.61% (n=19)	23.68% (n=9)
Motivation	13.1% (n=11)	36.84% (n=14)
Technical Difficulties	0% (n=0)	2.63% (n=1)
Adjustment to Learning Environment	28.57% (n=24)	21.05% (n=8)
Social Connection	9.52% (n=8)	10.53% (n=4)
Mental Health	3.57% (n=3)	5.26% (n=2)
<i>NEUTRAL</i> Pandemic Impact: Thematic Patterns in Academic Life	Community college students expressing neutral pandemic impact (n=65)	University students expressing neutral pandemic impact (n=24)
Academic Performance	0% (n=0)	0% (n=0)
Focus and Attention	1.52% (n=1)	0% (n=0)
Motivation	0% (n=0)	8.33% (n=2)
Technical Difficulties	1.52% (n=1)	0% (n=0)
Adjustment to Learning Environment	1.52% (n=1)	0% (n=0)
Social Connection	0% (n=0)	0% (n=0)
Mental Health	0% (n=0)	0% (n=0)

Table 2.3: Thematic Patterns Observed in Overall Impacts Within the Social Domain

<i>POSITIVE</i> Pandemic Impact: Thematic Patterns in Social Life	Community college students expressing positive pandemic impact (n=19)	University students expressing positive pandemic impact (n=12)
Ability to Maintain Existing Relationships	42.11% (n=8)	33.33% (n=4)
Ability to Form New	21.05% (n=4)	25% (n=3)

Relationships		
Sense of Social Support	10.53% (n=2)	25% (n=3)
Loneliness	15.79% (n=3)	0% (n=0)
Social Isolation	10.53% (n=2)	0% (n=0)
Mental Health	0% (n=0)	0% (n=0)
<i>NEGATIVE Pandemic Impact: Thematic Patterns in Social Life</i>	Community college students expressing negative pandemic impact (n=113)	University students expressing negative pandemic impact (n=44)
Ability to Maintain Existing Relationships	37.17% (n=42)	15.91% (n=7)
Ability to Form New Relationships	20.35% (n=23)	38.64% (n=17)
Sense of Social Support	9.74% (n=11)	15.91% (n=7)
Loneliness	35.4% (n=40)	9.1% (n=4)
Social Isolation	30.97% (n=35)	36.36% (n=16)
Mental Health	5.31% (n=6)	11.36% (n=5)
<i>NEUTRAL Pandemic Impact: Thematic Patterns in Social Life</i>	Community college students expressing neutral pandemic impact (n=64)	University students expressing neutral pandemic impact (n=12)
Ability to Maintain Existing Relationships	1.56% (n=1)	0% (n=0)
Ability to Form New Relationships	1.56% (n=1)	0% (n=0)
Sense of Social Support	0% (n=0)	8.33% (n=1)
Loneliness	3.13% (n=2)	0% (n=0)
Social Isolation	3.13% (n=2)	8.33% (n=1)
Mental Health	0% (n=0)	0% (n=0)

Table 2.4: Thematic Patterns Observed in Overall Impacts Within the Well-being Domain

<i>POSITIVE Pandemic Impact: Thematic Patterns in Well-being</i>	Community college students expressing positive pandemic impact (n=21)	University students expressing positive pandemic impact (n=10)
Depression	4.76% (n=1)	10% (n=1)
Anxiety	4.76% (n=1)	0% (n=0)
Stress	4.76% (n=1)	0% (n=0)
Loneliness	19.05% (n=4)	0% (n=0)
Self-esteem	14.29% (n=3)	0% (n=0)
<i>NEGATIVE Pandemic Impact: Thematic Patterns in Well-being</i>	Community college students expressing negative pandemic impact (n=129)	University students expressing negative pandemic impact (n=48)
Depression	35.66% (n=46)	29.17% (n=14)
Anxiety	29.46% (n=38)	29.17% (n=14)
Stress	34.11% (n=44)	43.75% (n=21)
Loneliness	10.85% (n=14)	18.75% (n=9)
Self-esteem	10.85% (n=14)	31.25% (n=15)
<i>NEUTRAL Pandemic Impact: Thematic Patterns in Well-being</i>	Community college students expressing neutral pandemic impact (n=37)	University students expressing neutral pandemic impact (n=14)
Depression	0% (n=0)	0% (n=0)
Anxiety	0% (n=0)	0% (n=0)
Stress	0% (n=0)	0% (n=0)
Loneliness	0% (n=0)	0% (n=0)
Self-esteem	0% (n=0)	0% (n=0)

Table 3 Interrater reliability statistics*Table 3.1: Community college participants:*

Variable	Average Pairwise Percent Agreement	Fleiss' Kappa	Expected Agreement	Average Pairwise Cohen's Kappa	Krippendorff's Alpha (nominal)
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Pandemic Impact to Students' Academic Lives

Positive Impact	93.704%	0.805	0.678	0.805	0.805
Negative Impact	89.63%	0.792	0.502	0.792	0.792
Neutral Impact	87.04%	0.714	0.547	0.714	0.714
Academic Performance	84.815%	0.522	0.682	0.519	0.523
Focus and Attention	87.04%	0.411	0.78	0.416	0.412
Motivation	94.815%	0.752	0.791	0.761	0.752
Technical Difficulties	99.26%	0.33	0.989	0.221	0.331
Adjustment to Learning Environment	76.30%	0.232	0.691	0.234	0.234
Social Connection	95.19%	0.475	0.908	0.494	0.476
Mental Health	96.30%	0.314	0.946	0.33	0.316

Pandemic Impact to Students' Social Lives

Positive Impact	92.59%	0.582	0.823	0.577	0.582
Negative Impact	88.52%	0.763	0.516	0.763	0.763
Neutral Impact	85.93%	0.687	0.551	0.689	0.687
Ability to Maintain Existing Relationships	80.37%	0.463	0.634	0.467	0.464
Ability to Form New Relationships	91.85%	0.647	0.769	0.643	0.648
Sense of Social Support	93.70%	0.381	0.898	0.333	0.382
Social Isolation	77.41%	0.343	0.656	0.352	0.344
Loneliness	77.41%	0.343	0.656	0.352	0.344

Pandemic Impact to Students' Well-being

Positive Impact	92.59%	0.641	0.794	0.638	0.641
Negative Impact	91.48%	0.795	0.585	0.796	0.795
Neutral Impact	90.37%	0.715	0.663	0.715	0.715
Depression	97.41%	0.938	0.58	0.938	0.938
Anxiety	98.52%	0.96	0.627	0.96	0.96
Stress	95.19%	0.855	0.667	0.855	0.856

Loneliness	95.19%	0.865	0.642	0.865	0.866
Self-esteem	95.93%	0.733	0.847	0.73	0.734

Table 3.2: University participants:

Variable	Average Pairwise Percent Agreement	Fleiss' Kappa	Expected Agreement	Average Pairwise Cohen's Kappa	Krippendorff's Alpha (nominal)
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Pandemic Impact to Students' Academic Lives

Positive Impact	96.24%	0.845	0.758	0.845	0.846
Negative Impact	90.61%	0.811	0.504	0.811	0.812
Neutral Impact	88.73%	0.743	0.562	0.743	0.744
Academic Performance	83.10%	0.423	0.707	0.446	0.426
Focus and Attention	87.79%	0.556	0.725	0.559	0.558
Motivation	91.549%	0.754	0.656	0.754	0.755
Technical Difficulties	96.24%	0.181	0.954	0.129	0.185
Adjustment to Learning Environment	82.16%	0.365	0.719	0.379	0.368
Social Connection	94.37%	0.595	0.861	0.593	0.596
Mental Health	92.488%	0.294	0.894	0.299	0.297

Pandemic Impact to Students' Social Lives

Positive Impact	94.37%	0.79	0.732	0.784	0.791
Negative Impact	93.427%	0.857	0.541	0.855	0.857
Neutral Impact	89.671%	0.695	0.661	0.7	0.696
Ability to Maintain Existing Relationships	75.587%	0.434	0.569	0.443	0.437
Ability to Form New Relationships	91.55%	0.677	0.738	0.671	0.679
Sense of Social Support	85.92%	0.448	0.745	0.434	0.451
Social Isolation	78.40%	0.472	0.591	0.483	0.474
Loneliness	99.06%	0.904	0.902	0.9	0.905

Pandemic Impacts to Students' Well-being

Positive Impact	97.18%	0.88	0.765	0.88	0.881
Negative Impact	92.49%	0.834	0.547	0.834	0.835
Neutral Impact	90.61%	0.723	0.661	0.721	0.724
Depression	97.18%	0.914	0.672	0.913	0.914
Anxiety	98.12%	0.981	0.583	0.955	0.955

Stress	96.24%	0.805	0.807	0.798	0.806
Loneliness	95.31%	0.852	0.683	0.85	0.852
Self-esteem	97.18%	0.712	0.902	0.696	0.714

Qualitative Items Exploring COVID-19 Pandemic Impact within a Larger Quantitative Study Observing Media Use and Identity Development in Emerging Adults

How did the COVID-19 pandemic impact you and your college experience in terms of your:

- 1.) Academic life (e.g., your classes, coursework, major, GPA)?
(Text box response)
- 2.) Social life (e.g., your relationships, social support, sense of community)?
(Text box response)
- 3.) Well-being (e.g., your happiness, stress, anxiety, loneliness, depression, self-esteem)?
(Text box response)

