

**EMERGING ADULTS' PERCEPTIONS OF THE IMPACT OF COVID ON MENTAL
HEALTH: A MIXED METHODS STUDY**

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MENTAL HEALTH: A MIXED METHODS STUDY**

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ABSTRACT

The COVID-19 pandemic has had a significant impact on mental health of emerging adults, who must navigate the tasks of early adulthood. This mixed methods study used surveys and focus group interviews to examine emerging adults' perceptions about the effects of COVID-19 on their mental health and supports available to them during the pandemic.

Sixteen 18–25-year-old undergraduate and graduate level students attending a private university in southern United States participated in a study approved by the Institutional Review Board (IRB) at the authors university. Their survey responses indicated effects of COVID and thoughts of COVID on their sleep, appetite, and grades. They reported not feeling supported by their school during the lockdown. However, the majority feel happy at least sometimes with how things are currently going in their life. Themes from focus group responses shed light on negative effects of lockdown and non-optimal home life. They also highlighted unmet support needs and the extra steps participants had to take to access resources. In contrast, there were protective factors connections and supports, movement and exercise, resilience and positive relationships served as buffers for emerging adults and predicted positive outcomes.

Moving forward, it is crucial that we prioritize easy access to counseling and mental health services, breaking down barriers for students seeking support. Additionally, fostering collaboration between college campuses, professionals, and students can lead to the development of workshops, curricula, and programs aimed at promoting healthy coping skills and overall well-being of emerging adults.

Emerging Adults' Perceptions of the Impact of COVID on Mental Health

Emerging adulthood is a phase that uniquely defines the life course of young individuals in modernized societies. This unique transition, which takes place between the late teens and late twenties, is characterized by a range of changes and experiences as young people explore the enormous number of possibilities that exist for them in life and make enduring choices. While not all young people experience this phase in the same way, emerging adulthood is characterized by commonalities of change and exploration, distinguishing it as a remarkable and unique period in the life course of individuals in modernized societies, where personal freedom and exploration reach their peak, allowing for numerous potential futures (Arnett, 2000).

The theory of emerging adulthood highlights the importance of understanding the unique struggles faced by this population as they navigate the challenges of modern adulthood (Arnett, 2000). Emerging adults navigate the challenges and responsibilities related to higher education, personal development, and adulthood transition (Wood et al., 2017). Also, emerging adulthood is characterized by an increased prevalence of risk-taking behaviors, likely stemming from a longing for autonomy and identity exploration before taking on adult responsibilities (Arnett, 2000). Social support can be vital for emerging adults as they engage in activities to establish their autonomy and identity. Western cultures and developed economies, in particular, place more importance on independence and self-discovery in early adulthood relative to emerging economies and cultures that prioritize familial responsibilities over individual autonomy (Arnett, 2011). Therefore, in developed economies, which include the United States (U.S.), it has become increasingly common for emerging adults to be in higher education settings (Arnett, 2000).

Although this is a time of hope, exploration, and optimism, it is also a time of uncertainty and therefore vulnerability. This is particularly evident in the recent mental health statistics,

which show an increased prevalence of mental illness among emerging adults following a COVID diagnosis (National Alliance on Mental Illness, 2022). Additionally, 3.8 million emerging adults had serious thoughts of suicide during the pandemic. The pandemic also contributed to increased substance use. For example, among emerging adults who drink, 18% reported increased alcohol use. Similarly, among young adults who use drugs 19% reported increased drug use (NAMI, 2022). Considering these statistics, the current study explores 18-25-year-old college students' perceptions of the effects of COVID on their mental health, the factors that contributed to poor mental health, as well as the protective factors. The following sections provide a synthesis of what we know from past mental health research about COVID's impact on mental health, and the contributing and protective factors.

COVID's Impact on Mental Health of Emerging Adults

Several studies have looked at whether mental health concerns among emerging adults increased due to the COVID-19 pandemic and detected an upward trend. For example, Kujawa and colleagues (2020) implemented an online survey, and based on responses from 716 emerging adults, they found that exposure to pandemic-related stressors, including financial difficulties and social isolation, significantly increased depression, and anxiety in emerging adults, even after controlling for pre-pandemic levels. Similarly, Graupensperger and colleagues (2022) conducted an online study with 778 emerging adults' and results revealed COVID-19 increased depression, anxiety, stress, and PTSD symptoms in young adults, more than in other age groups. In another study, Liu, and colleagues (2020) also conducted an online survey and based on responses from 1,001 emerging adults they found that the COVID-19 had significantly and negatively impacted emerging adults with existing psychiatric diagnoses, causing higher psychiatric distress and lower sleep quality, and raising quality of life concerns. In Lui et al.'s

study, females, individuals from minoritized racial and, ethnic minority groups, and those with lower income and education levels also experienced higher distress levels. An additional example is Blanchflower and Bryson's (2022) study, which analyzed data from Census Household Pulse Survey and CDC (Centers for Disease Control) National Health Interview Survey from 2019-2020. Based on responses from over 3 million Americans during the COVID-19 pandemic, they found that COVID-19 negatively impacted mental health, with increased symptoms in emerging adults, women, and those with lower income and education, and these factors are also linked to economic hardship.

Collectively, these studies shed light on how the COVID-19 pandemic has affected emerging adults' mental health and provide crucial data for further investigation. Pandemic-related stressors, like financial issues and social isolation, have been associated with increased rates of anxiety and sadness, especially in people diagnosed with mental illnesses. The impact is seen across a number of demographic categories, such as women, individuals from racial and ethnic minority groups, those with lower incomes and educational levels, and emerging adults enrolled in college. These results highlight the significance of responding to emerging adults' mental health needs and conducting additional research to understand and reduce the pandemic's effects on emerging adults.

Contributing Factors

In addition to the prevalence of mental health challenges, recent findings also shed light on the factors that contributed to or exacerbated stress and mental health challenges among emerging adults during the pandemic. For example, Grelle and colleagues (2023) implemented an online survey that examined links among mental health, coping behaviors, pandemic stressors, and demographics for various generational cohorts. Responses from 2,696 U.S.

individuals were grouped by generations (Gen Z, Millennial, Gen X, and Baby Boomer) and results revealed generational inequalities in mental health, with Gen Z participants (ages 11-26) experiencing higher stress, anxiety, and depression relative to other cohorts. This age group was more likely to use unhealthy coping mechanisms like substance abuse and social media, and concerns about COVID-19 and money issues also contributed to worse mental health outcomes.

Additionally, Maly and colleagues (2022) conducted an online survey with 423 college students and measured the relationship between hostile home environments and mental health. Findings revealed emerging adults who encountered frequent violence and aggression in their homes were more likely to experience depression, anxiety, and PTSD, partly due to increased stress from the COVID-19 pandemic. Lisitsa and colleagues' study (2020) with 1,674 participants highlighted that emerging adult experienced higher loneliness during the COVID-19 pandemic, with higher social media use and lower social support seeking. Finally, Liu and colleagues (2020) implemented a cross-sectional online study with 898 participants and found that the COVID-19 pandemic significantly impacted emerging adults' psychiatric distress and lowered levels of sleep quality and quality of life. Demographic factors such as gender, race/ethnicity, and income also were found as contributors to poor mental health. Specifically, women, racial, ethnic minorities, and those with lower income and education levels experienced higher distress levels compared to other demographic groups (Liu et al., 2020). Factors contributing to mental health symptoms included loneliness, COVID-19-specific worry, and low distress tolerance.

Indeed, these studies provide valuable insights into factors that contributed to poor mental health of emerging adults during the pandemic. It is evident that generational differences, the unique stressors brought about by the pandemic, financial problems, home environments, and

the feelings of loneliness play a role in the mental health of emerging adults. Emerging adults, as a group, experienced an increase in mental health challenges and the adoption of unhealthy coping tools, a decreased ability to process distress, and the isolation that many have endured all might contribute to the increased levels of stress, anxiety, and depression. In essence, past findings highlight the connection of these factors in shaping mental health of emerging adults during this crisis (Grelle et al., 2023). This underscores the urgency of specific interventions and supports that address these very real, human struggles for emerging adults.

Protective Factors

Certainly, COVID-19 has shown many adverse effects on the mental health of emerging adults, and a number of factors have contributed to these negative effects, but a few studies highlight protective factors that promote resilience for this population. For example, Killgore and colleagues' (2020) study, conducted with 1,004 emerging adults who completed several self-report questionnaires, found that psychological resilience during the COVID-19 pandemic was predicted by higher levels of perceived social support, exercise, and self-rated health, and lower levels of anxiety, depression, and stress. Based on their online study with 778 emerging adults, Graupensperger and colleagues (2022) also found that social support, coping strategies, and optimism is protective against mental health challenges. Similarly, Liu and colleagues' (2020) cross-sectional online study with 898 emerging adults revealed that family social support and resilience were linked to lower levels of depression, PTSD (Post Traumatic Stress Disorder), anxiety, and PTSD symptoms. Additionally, Lisitsa and colleagues' study (2020), which used a cross-sectional online survey of 1,674 emerging adults, found that seeking social support from others is an effective way to reduce psychological distress. Together, these findings highlight

several factors that promote resilience, and notably all three studies underscore the vital role of social support in promoting mental health resilience.

Though previous research on the impacts of COVID-19 has provided valuable insights into the challenges faced by individuals across various age groups and backgrounds, there is a notable gap in the literature concerning a comprehensive, mixed-methods approach to explore the experiences of emerging adult college students during the pandemic, since not all college students are “emerging adults”. Existing studies have primarily relied on quantitative surveys to identify the psychological and emotional effects of COVID-19; few have qualitatively explored the experiences of this specific population. To address this gap, my study adopts a mixed methods approach, incorporating both quantitative and qualitative data collection methods with college students. By doing so, it aimed to provide a more holistic understanding of the perceived impact of the pandemic on this population. Our research questions were: (1) How do emerging adults perceive the impact of COVID on their mental health? and (2) What mental health supports and services were available to them during and since COVID? By asking these questions, we sought to understand this group’s lived experience of COVID-19 and their perceptions of how COVID impacted their mental health as well as the supports they found useful during this challenging time. Findings from this study could serve to provide evidence-based support and services to buffer the impact of COVID on college students and help to advocate for college-based services to better serve the student population.

Methods

Participants

Participants were recruited from the undergraduate and graduate programs at the author’s university through flier placement and campus advertisements in classroom buildings and two

locations – the Intercultural Center and Student Support Services office – which are frequented by students from minoritized and underrepresented groups. The flier included a description of the study and contact information for any questions. Participants were asked to scan the QR code or visit the link on the flier to sign up for the study. Additionally, students interested in participating in the study completed the Qualtrics survey linked to the recruitment flier, where they provided their name, email, and preferred time for a focus group session. The researcher sent an informational email to interested participants that outlined the research procedures. Participants were given the option to cancel their signup if they changed their mind without affecting their student status at the university.

Sixteen participants between the ages of 18 and 25 signed up and then participated in the study. 44% self-identified as Hispanic, 13% self-identified as Black, 13% self-identified as Asian, and 31% self-identified as White. Out of the 16 participants, 81.3% identified as female, and 6.3% identified as male, 6.3% nonbinary, or 6.3% transgender. Additional participant information is included in Table 1.

Table 1
Participant Characteristic:

Descriptor	Total (N = 16)	Valid Percent
Gender Identity		
Male	1	6.3
Female	13	81.3
Non-binary/ non-conforming	1	6.3
Transgender	1	6.3
Race		
Asian	2	12.5
Black	2	12.5

Hispanic	7	43.8
White	5	31.3
Depend on own income for college expenses		
Somewhat	4	25
Significantly	7	43.8
Not at all	5	31.3
Depend on financial aid and scholarships		
Somewhat	7	43.8
Significantly	9	56.3

Procedure

The study used a mixed-methods approach, including focus groups and surveys, to gather data on emerging adults' perceptions of COVID-19's impact on their mental health. As mentioned previously, interested students could express their intent to participate by scanning the QR code or using the sign-up link on the recruitment flyer. The researcher contacted the students that completed the survey and provided them with detailed information about the data collection session, which included the date, time, location, and the agenda. A week before the scheduled focus group, the researcher sent a reminder email and a final email reminder on the day of the data collection session. Out of the 20 participants that initially signed up for the data collection session, only 16 attended and participated in the sessions. Ten students participated in the first session, and six students participated in the second session.

The two sessions were held on a Tuesday, 6-7 p.m. and Wednesday, 12-1 p.m. to allow students with varying schedules to participate. They were conducted in a conference room, which is on the second floor of a centrally located classroom and office building and has a

seating capacity of 12 people. The conference room provided a comfortable and private environment, and the researcher provided a snack and bottled water to the participants. After participants arrived at the research location, the researcher went over the study's purpose, informed consent form, and had the participants sign a physical copy of the consent form. After obtaining participant consent, the researcher provides a copy of the focus group questions to the participants, and then started the focus group by asking the participants to introduce themselves. The focus group questions are included as Appendix A. The two focus groups lasted for 50.44 minutes and 37.06 minutes respectively and were audio-recorded for subsequent transcription of analyses. Following the focus group session, participants were provided with 15 minutes to complete a survey on demographic information and quality of life, providing additional quantitative data. Participants who completed both the focus group and survey received a \$20 gift card as a thank you for their time. All participants (N = 16) completed both components.

At the end of the session, participants were provided with informational flyers on mental health resources and support services, which emphasized the importance of seeking help if needed, both within and outside the university. Protocols were also in place to remove any data from the analyses if a participant decided to withdraw from the study.

Measures

Focus Group

The study included focus groups surveys to gather information on participants' perceptions of the impact of COVID-19 on their mental health and supports available to them during this time. The focus group guide was developed by the researcher and included 22 questions about participants' initial reactions, daily life changes, societal restrictions, and overall mental health. See Appendix A for guide.

Survey

The survey included 21 multiple-choice items, which included questions on demographics, stress levels, perceptions of support, and overall health.

Demographic Questions.

The demographic section of the survey included four questions and asked participants about participants' gender identity, race/ethnicity, and financial support .

Perceived Impact on Mental Health.

This section included questions from the Coronavirus Anxiety Scale (CAS; Lee, 2020) and Generalized Anxiety Disorder 7 (GAD-7; Spitzer et al., 2017). Overall, the scale included five questions; questions from CAS asked participants about their reactions to COVID (e.g., I had trouble falling or staying asleep because I was thinking about COVID-19), and participants responded to the questions with 'yes,' 'no,' or 'unsure.' The survey included only one question from GAD (I have something to look forward to when I wake up), and participants responded to the question with 'yes,' 'no,' or 'sometimes.' The researcher created nine additional questions to gauge participants' mental health due to being inspired by other measurements (e.g., I lost interest in eating when I thought about not seeing my friends are going to school). To respond to these questions, participants selected from responses 'rare, less than a day or two,' 'several days,' 'more than 7 days,' and 'nearly every day.'

Perceived Support.

To gauge how supported the participants felt, the survey included questions from COVID Stress Scale (CSS; Taylor et al., 2020) and the Patient Health Questionnaire-9 (PHQ-9; Spitzer et al., 2017). Two questions were included from CSS (E.g., I felt supported by my school and

community during the lockdown), and participants responded to the questions with rare, less than a day or no, several days, more than 7 days or nearly every day. Survey included three questions from PHQ-9 (E.g., I have at least one adult I trust and can talk to about anything and feel supported) and participants responded to the questions with 'not at all,' 'several days,' 'more than half the day,' or 'nearly every day.'

Data Analysis

The survey data was entered into IBM SPSS (Statistical Package for the Social Sciences) and analyzed using frequency statistics. After the data was analyzed, a table was created that reflects frequency data for each survey item (see Table 2).

The focus group recordings were sent to REV, a transcribing company, to be transcribed. After the transcripts were received from both focus groups, they were uploaded to Dedoose, a qualitative analysis platform. The transcripts were analyzed using a constant comparative analytic approach. Often used in Grounded Theory methodology, this approach involves an inductive and systematic approach to analyzing data without preconceived ideas, allowing patterns to emerge from the data itself (Chun Tie, Birks, & Francis, 2019). In line with constant comparative approach, I first utilized open coding, a crucial step in the process, where I systematically broke down each section of the data and analyzed it line by line. This process allowed me to create codes for various aspects of data, aiding in the identification of initial categories. A total of 33 open codes were identified during this process. A few codes included "awareness to challenges and needed supports," "disconnection/isolation," "healthy coping," "unhealthy coping," "negative impact on grades," "negative effects of the lockdown," and "negative emotional health."

Following that, I engaged in axial coding, which aided the exploration of relationships between the various categories and subcategories identified during open coding. There were 13 axial codes. By examining how each code interacted with one another, I gained a deeper understanding of the connections within the data. Finally, through selective coding, I refined the identified themes and categories within the codes, developing a holistic approach that explained the relationships and patterns found in the data. I focused on the frequency of each code to outline the qualitative data, ultimately creating a clear and meaningful representation of the developing themes within the data. There were three selective codes: contributing factors to poor mental health, protective factors, and the effects of COVID on mental health. Table 3 located in the appendix includes the themes and illustrative excerpts.

Results

The quantitative table discloses the diverse impact of the COVID-19 pandemic on participants' lives. Notably, a significant 81% of participants expressed feeling unprepared when first hearing about COVID, highlighting the initial shock and uncertainty. The table also reveals that 50% of participants struggled with daily challenges related to eating, highlighting the intensity of stressors. Additionally, the findings indicate that 75% of participants experienced a change in grades since the onset of the pandemic, shedding light on the academic consequences. Sleep disturbances were prevalent, with 44% reporting trouble falling or staying asleep, reflecting the serious psychological impact of the crisis. In contrast, the majority of participants (75%) did not report conflict within their families. However, feelings of support from school or the community were limited, as 62% rarely felt supported during lockdown. The table also reveals the emotional toll, with 56% sometimes or never having something to look forward to upon waking up. Lastly, only one participant reported getting 30 minutes of movement each

week, and six reported sometimes getting 30 minutes of movement weekly highlighting the challenges of maintaining a healthy lifestyle during these unforeseen times. Please refer Table 2 for the remaining item level statistics.

Table 2. Item-level Frequency Data

Scale	Item	Frequency Distribution			
Perceived Impact of COVID-19					
		No	Sometimes	Yes	
Coronavirus Anxiety Scale	Felt unprepared and worried when I first found out about COVID-19 (CAS)	1 (6.3%)	12 (12.5%)	13 (81.3%)	
		Rare	Several days	More than 7 days	Everyday
	Felt dizzy, lightheaded, or faint when I read or listened to news about COVID-19 (CAS)	12 (75%)	0	2 (12.5%)	2 (12.5%)
	Trouble falling or staying asleep because I was thinking about COVID-19	9 (56.3%)	3 (18.8%)	2 (12.5%)	2 (12.5%)
	Felt paralyzed or frozen when I thought about being exposed or exposing my family or friends to COVID-19	4 (25%)	7 (43.8%)	1 (6.3%)	4 (25%)

	Lost interest in eating when I thought about not seeing my friends going to school.	8 (50%)	6 (37.5%)	0	2 (12.5%)
Generalized Anxiety Disorder		No	Sometimes	Yes	
	Feel like I have something to look forward to when I wake up.	0	9 (56.3%)	7 (43.8%)	
Perceived Support and Wellbeing					
COVID stress scale		Rare	Several days	More than 7 days	Everyday
	Felt supported by my school and community during the lockdown.	10 (62.5%)	3 (18.8%)	3 (18.8%)	0
		Yes, Lower	Yes, Higher	No Change	
	Noticed a change in my grades since COVID-19	9 (56.3%)	3 (18.8%)	4 (25%)	
Patient Health Questionnaire		No	Sometimes	Yes	
	In general, I feel happy with the way things are going in my life.	2 (12.5%)	6 (37.5%)	8 (50%)	
	At least one trusted peer who can talk with	0	3 (18.8%)	13 (81.3%)	
	At least one trusted adult who can talk with	2 (12.5%)	3 (18.8%)	11 (68.8%)	
Developed by Researcher	Get along with my family members.	1 (6.3%)	7 (43.8%)	8 (50%)	

	I have missed more than 7 days of school this year.	9 (56.3%)	1 (6.3)	6 (37.5%)	
	I get at least 30 minutes of movement 3 times a week.	1 (6.3%)	7 (43.8%)	8 (50%)	
	Get enough rest at night.	8 (50%)	4 (25%)	4 (25%)	

Qualitative Findings

Through open, axial, and selective coding processes, I derived three final themes. The first theme, '*Effects of COVID*,' focused on the impact of the COVID-19 pandemic on participants' lives, encompassing their mental health, excessive technology, academic performance, health, and social relationships. Excerpts coded under this theme revealed changes in college students' daily routines and perceptions of the world around them. One concern highlighted was the excessive use of technology, which was perceived as both a necessity for staying connected and a challenge for mental health. As one participant expressed, "I think it's changed a lot how our world operates, and it's kind of changed us. We are a lot more on our phones, which is not good for mental health. Social media, we relied on social media a lot." Another concern was the impact on grades, which reflects the struggles students faced in adapting to remote learning and maintaining their grades. One participant expressed, "I am trying to integrate back into college; I mean, I was still in college, but I guess back into what we call a normal college, it's kind of hard because I already had a rough start with COVID. Things weren't really looking too well, and so it kind of translated into my grades and my academic performance. So that part was tough." An additional concern was health concerns, which captured the anxiety and fear participants experienced regarding their health and the well-being of their loved ones. A participant stated, "I just had a lot of anxiety about the whole thing. Is this

ever going to end? If I get sick, I'm going to kill my family and get them sick. And it is just, I think for me, just, will this ever-going world go back to normal?" A final concern was the impact on relationships, which explored the changes in social interactions and personal growth resulting from the pandemic. Participants noted a transition from being more social to a more introverted state. One participant reflected, "I feel like I'm still; I didn't have a chance to really finish growing up. I feel like I am still struggling to be an adult or even a functional human being in general. I also feel like I have not recovered my social skills, but I also think it's because COVID changed me a lot as a person." Overall, the effects of the COVID-19 pandemic on college students' lives highlight the challenges and changes they faced in various aspects of their daily experiences.

The second theme, entitled '*Exacerbating Factors*', encompassed subthemes relating to the factors that exacerbated the effects of COVID on participants' mental health. The theme included subthemes such as avoidance or escape, an unsupportive environment, unhealthy coping, and a non-optimal home life. One prevalent issue that emerged was the struggle to cope with the demands of remote learning and the emotional toll it took on students. As one participant expressed, "Emotional discomfort for sure... Sitting here on a laptop all day was horrible for me. And so, I just stayed isolated most of the time." Moreover, students shared how the relentless focus on academic pursuits as a coping mechanism exacerbated feelings of stress and sadness. Reflecting on their experiences, one student remarked, "I was frustrated, and just keeping school as my focus... me focusing on it 24/7 and being in my room all the time just kicked off the depression because I was like, oh my gosh, I'm not capable of doing these things." The lack of support systems and resources further amplified students' struggles. Many felt isolated and unsupported, with limited resources for seeking assistance. As one student stated,

"When it came to resources and stuff like that, I didn't even know TCU (Texas Christian University) had mental health things coming in. I think that was told to us when we were on campus doing activities. I just didn't feel supported in the first two years of college." Students also struggled with unhealthy coping mechanisms as they attempted to navigate the challenges presented by the pandemic. For some, excessive alcohol consumption and partying served as a means of escape from the overwhelming stress and isolation. As one participant confessed, "I got into partying. It was like I was just stuck.....And so I spent Thursday, Friday, Saturday, and Sunday at the bars because I had nothing else to do." Furthermore, students highlighted the strain placed on their family relationships and home environments during the pandemic. For some, home was not a safe place but rather a source of emotional distress, leading to further isolation and feelings of loneliness. As one participant shared, "I wasn't someone who felt safe in my home—not physical harm, just emotional harm all the time.... During COVID, I did everything I could to avoid going home, being home, or being locked in my room all the time. It was a very isolated and lonely feeling. And I think it strained my relationship with my family more than it already had." Overall, the pandemic exacerbated students' existing challenges and introduced new emotional obstacles, causing them to struggle with various emotions and seek ways to cope with the global health crisis.

Finally, the last theme, *'Protective Factors'*, included subthemes that highlighted factors that buffered the impact of COVID on participants' mental health. While many students shared about the negative impacts of COVID and exacerbating factors, a few expressed their experiences with protective factors such as connections and supports, movement and exercise, resilience, and positive relationships; these factors helped protected the participants' mental health during the pandemic. The qualitative analysis of protective factors sheds light on the

various coping mechanisms and sources of resilience from a student's perspective during the pandemic. For many students, the presence of connections and support played a crucial role in navigating the challenges they faced. These connections provided a sense of comfort and understanding during uncertain times. One participant highlighted the feeling of support when therapy sessions were available online. "My group therapy sessions went online, so that was helpful." However, there was a recognition of the disparity in experiences, acknowledging that not everyone had access to such support systems. Movement and exercise emerged as another key coping skill among students. A student shared that engaging in regular walks, particularly with family members, became a cherished activity that not only promoted physical health but also served as a means of emotional bonding. "I really turned into a walker because me and my mom would take five-mile walks almost every day... I just have not stopped. And we just love going for walks. So that's what I've done in the past three years."

Resilience was another theme among students, with many attributing their ability to endure the challenges of the pandemic to their inner strength and determination. Despite facing adversity, students found silver linings in their experiences, viewing the pandemic as a catalyst for personal growth and self-discovery. A participant mentioned that "COVID positively affected my mental health because it showed me that even though I lived through the toughest times, I'm still here.... I got through it.... It taught me a lot about who I am as a person." Moreover, positive relationships within the family unit also emerged as significant sources of support for students. A student shared that "...In my house, my mom and I, honestly, really liked it at the beginning because we just love, we are very many homebodies. We honestly really loved it.....And we did a lot of things, like my mom bought indoor trampolines, small little trampolines, and so on, to work out on, to jump on them.....we would cook dinner and listen to music." Overall, this theme

highlights the crucial role of social connections, physical activity, and familial bonds in students' resilience, determination, and well-being during the pandemic.

Table 3. Participants' Perceptions of the Impact of COVID on Mental Health

Effects of COVID	Interview excerpts
Excessive technology use	- I think it is changed a lot how our world operates, and it is kind of each changed us. We are a lot more on our phones, which is not good for mental health, social media, we relied on social media a lot.
Grades	- I am trying to integrate back into college, I mean I was still in college, but I guess back into what we call a normal college, it is kind of hard because I already had a rough start with COVID. Things weren't really looking too well and so it kind of translated into my grades and my academic performance. So that part was tough.
Health	- I just had a lot of anxiety about the whole thing. Is this ever going to end, if I get sick, I am going to kill my family and get them sick. And it is just, I think for me also just the will this ever will world go back to normal? - I was super angry too just because my dad, he went through this phase of like, "Oh I'm not going to wear a mask, it bothers me, blah blah blah blah." Not knowing he is exposing himself to other kids in this house and very angry at people like that. It was very resentful of that kind of community as well.
Relationships	- I felt that kind of shift from being more socialized and then coming into this more introverted state after the lockdown. - I feel like I am still, I did not have a chance to really finish growing up. I feel like I am still struggling to just be an adult or even a functional human being in general. I also feel like I have not recovered my social skills, but I also think it is because Covid changed me a lot as a person.
Exacerbating Factors	Interview excerpts
Avoidance or Escape	- Emotional discomfort for sure. So also, I was very focused just doing my school stuff, which was stressful too because I was like, I cannot do this. Sitting here on a laptop all day was horrible for me. And so, I just stayed isolated most of the time. - I was frustrated and just kept school as my focus, just using it as an excuse to just stay busy all the time. And so, I was always in my room studying and things like that, but then nursing school's hard, so I was really struggling through that. And so, me focusing on it 24 7 and being

	<p>in my room all the time just kicked off the depression because I was like, oh my gosh, I am not capable of doing these things and I am studying all the time. So that kicked off.</p>
Unsupportive environment	<ul style="list-style-type: none"> - When it came to resources and stuff like that, I did not even know TCU had mental health things coming in. That was told to us when we were on campus doing activities. Yeah, I just did not feel like the support in the first two years of college. - No support during Covid. I was on campus, and I felt like we were always given a lot of instructions to follow, and it was like, she cannot do this. There will be consequences like that. But I never read anywhere that, oh, you know, can reach out to this group for support or you can go to this person for support, or you can reach out to your RA for support. I did not see anything like that. I wish there were something like that.
Unhealthy Coping	<ul style="list-style-type: none"> - Mental health affected me, I got into partying. Anyone who knows me knows I am not; I am like a homebody. I hate partying, I hate drinking, I hate anything to do with that. But it was freshman year of college, everything was online. It was like I was just stuck with my roommates and the only way that I could get interaction was by going to the bars. And so, I spent Thursday, Friday, Saturday, Sunday at the bars because I had nothing else to do. And I have just noticed it was a coping skill that I used, and it helped take away some of the depression and the struggling with Covid because I would just be using drinking and partying with the coping skill. - I stayed in bed the entire time and if I weren't in bed I would work out and then maybe go out of my room to eat. But I stayed in my room most of the time. I was never anywhere else, was not in the dining room, was not in the living room, I was just always in my room.
Non-optimal home life	<ul style="list-style-type: none"> - At that time, I was also concerned, oh my gosh, I need to go to therapy. Because I was starting to go into the depression of being isolated all the time. But my parents were never against that. It is just that they were the type of parents that are like, you are fine, just be strong and get over it, type thing. So that was hard for me not being able to have access to any type of resources. - I was not someone who felt safe in my home, not harm, physical harm, just emotional harm all the time. And so, during Covid, I did everything I could to avoid going home or being home or locked in my room all the time. It was a very isolated and lonely feeling. And I think it strengthened my relationship with my family more than it already was.
Protective Factors	Interview excerpts
Connections and supports	<ul style="list-style-type: none"> - I will say that I did feel supported. I mean, I was dating someone at the time, I was still on campus for nursing school. My best friend lives 20 minutes away, so I will say yes, but it is sad that not everyone has that same story, which is inevitable.

	- My group therapy sessions went online so that was helpful.
Movement and Exercise	- I really turned into a walker because my mom and I would take five-mile walks almost every day and then I just have not stopped. And we just love going for walks. So that has, I've, in the past three years, that's when I started walking the most and then it just stuck with me.
Resilience	- Covid positively affected my mental health because it showed me that even though I lived through the toughest times, I am still here. I mean, I got through it, so I would not want to go back and live with that. But it taught me a lot about who I am as a person. - I was able to graduate early with all the credits that I had. So, I was very proud of myself at the end of COVID.
Positive Relationships	- I was spending a lot more time with my family just at home and I was able to do it, I had so much extra time because I was not commuting to different places that I was able to do more with my time, which was nice. But then at the same time I also just kind of self-isolated with my family a lot and I barely saw people for the most part. And I was online in school until April of 2022, so I was isolated for that whole time. But I still loved being able to spend time with my family. - I guess in my house, my mom and I, honestly, really liked it at the beginning because we just love, we are very much home bodies. We love going and picking up dinner and then going back home and doing everything at home. And so, we honestly really loved it. And we did a lot of things like my mom bought indoor, small little trampolines and so to work out on, to jump on it. And so, we were doing that before we would cook dinner and listen to music.

Discussion

The study aimed to explore the question “How do emerging adults perceive the impact of COVID on their mental health and what mental health supports and services were available to them during and since COVID.” It sought to identify the perceived effects of COVID-19 on emerging adults’ mental health and their access to support. Through survey and focus group, our study yielded several important findings. These findings align with past literature and contribute new insights to our understanding of the impact of COVID-19 on the emerging adults’ mental health.

The survey data indicated that the majority of the participants felt unprepared when they first learned about COVID-19. Additionally, 75% of participants reported a lower grade change since COVID and 62% participants reported rarely feeling supported by school or community during lockdown. These findings are similar to what others have found in looking at the ways that young adults were affected by COVID-19 (Marzilli et al., 2022, Grelle et al., 2023). This consistency reaffirms the significance of understanding how emerging adults are affected by the pandemic. Our survey findings also indicated the impact of COVID-19 on participants' appetite and sleep. Considering that 50% of our participants struggled with daily challenges related to eating and 44% reporting trouble falling or staying asleep both reiterates past findings as well as raises concerns, especially because the allostatic load during emerging adulthood can have long lasting effects on health outcomes (Graupensperger et al., 2022, Maly et al., 2022, Liu et al., 2020).

The effects of COVID were compounded by the fact that the emerging adults in our study faced various obstacles impeding their access to mental health services. These challenges align with existing literature that has identified barriers such as lack of health insurance, stigma, limited access, fear of labeling, and competing life responsibilities (Salaheddin & Mason, 2016). Additionally, the pandemic amplified these barriers with factors such as lack of awareness, mistrust of healthcare systems, and fear of judgment (Lind et al., 2022).

The qualitative data, and resulting themes, shed light on several unique factors and led to a more nuanced understanding of the impact of COVID-19. For example, participant responses during the focus group provided more context around the issues of access. Despite students being required to carry insurance, there was a hindrance in accessing in-state mental health services due to long wait times and unavailability of competent care. Consequently, participants had to

seek out-of-state assistance. Thus, even when insurance (or lack thereof) is not a barrier, emerging adults, especially college students, can experience barriers in availing mental health support and services.

Furthermore, the qualitative themes highlighted the perceived effects of COVID-19 on relationships, academic achievement, health, and unhealthy technology use. Interruptions in traditional methods of learning likely led to declines in participants' academic grades. Similarly, excessive technology use and the potential adverse impacts on health. Factors such as a non-optimal home life, an overall unsupportive environment, and unhealthy coping mechanisms exacerbated these factors. Although these themes are consistent with what has been observed in other studies (Liu et al., 2020, Lisitsa et al., 2020, Blanchflower and Bryson, 2022), the qualitative responses provide a more in-depth and holistic understanding of the impact as well as contributing factors.

Along with the negative factors, the qualitative findings also highlighted the importance of protective factors like healthy relationships, exercise, and psychological resilience in buffering the effects. During challenging circumstances, solid relationships that are defined by trust, empathy, and understanding provide emotional and social support. Support systems, including emotional, educational and community support, help individuals cope with stress and adversity effectively (Graupensperger et al., 2022). As well, overall wellbeing can also be improved by health-promoting habits including regular physical activity and a balanced lifestyle (Killgore et al., 2020).

The findings of this study should be considered with limitations in mind. The sample size was small, and it does not accurately reflect the diversity of the student population. The gender breakdown was 81.3% female, 6.3% male, transgender, and/or gender nonbinary. Thus, similar

to most mental health research, men, transgender, and nonbinary individuals were underrepresented in the sample (Knox et al., 2022). Also, close to half the sample identified as Hispanic. Although this strong representation of a minoritized population can be viewed as a positive, more research needs to be conducted to include voices of other minoritized groups such as Black, Indigenous, and Asian college students.

Moreover, the research design employed short interview times and was limited to one interview per participant, potentially hindering a deeper exploration of the participants' experiences. A group interview approach, while providing a broader perspective, might have prevented participants from being fully transparent due to social dynamics and peer influence. The short time frame of the study raises concerns about the depth of data collected, the possibility of missing details, and the long-term effects of the variables within the study. Lastly, the study was conducted at a small, private university, and although a large proportion of the sample reportedly depended on financial aid or their own income to support their education, the sample is not representative of students at larger public universities. Hence, our findings may not be generalizable to students in other college settings. Similarly, emerging adults are perhaps the most demographically diverse age group (Arnett, 2000) whereas our study included only college students. Future research should certainly examine similar topics with emerging adults in non—college settings such as employment, trade schools, and the military.

Despite limitations, our study has important implications and applications. Findings about dissatisfaction with support structures for mental health point to a need for structural change. Specifically, 100% of the participants felt that the college could have better ensured students felt secure, safe, and heard regarding their mental health needs. Other reports highlighted that during the lockdown students had insufficient support from the school and unmet mental health needs,

necessitating additional steps to access resources (NAMI, 2022). The transition to online learning and telemedical appointments posed significant barriers and challenges, a sentiment echoed by our participants. They shared how the COVID-19 lockdown altered their student experience, with several participants feeling behind in various areas due to this unforeseen pandemic. x Cumulatively, these findings underscore the need for greater mental health support systems that specifically address the needs of emerging adults.

Conclusion

The COVID-19 pandemic has led to a substantial rise in depression and anxiety rates among college students, with one in three individuals reporting symptoms of mental health struggles (Druckenmiller, 2022). The pandemic-induced stressors, encompassing social isolation, financial strain, health anxieties, and disruptions to daily routines, profoundly affect mental health and well-being. Given this mental health crisis, understanding the lived experiences of emerging adults during this period is crucial. We found similar impacts on mental health, but also found that participants had protective factors, including connections and supports, healthy relationships and resilience and were hopeful about their futures. Understanding the ways in which young adults are impacted by COVID-19 is crucial for informing targeted interventions and support systems that address their unique needs during these challenging times.

Despite its limitations, this research holds significant strengths. It offers a unique perspective on the lived experiences of emerging adults during and after COVID-19, capturing the lasting impact of this life altering event. The mixed-methods approach, including semi-structured interviews, provided a depth of data not found in previous research. The study highlights the importance of accessible mental health support for college students and emphasizes the need for collaborative efforts between academic institutions and mental health

professionals to enhance resilience and coping skills among emerging adults. This study offers a significant contribution to existing research on how emerging adults' mental health has shifted in the aftermath of the pandemic. Moving forward, it is crucial that we prioritize easy access to counseling and mental health services, breaking down barriers for students seeking support. Additionally, fostering collaboration between college campuses, professionals, and students can lead to the development of workshops, supportive student organizations, curricula, and programs aimed at promoting healthy coping skills and overall well-being among college students.

Appendix A

Focus Group Questions

1. What grade were you in, in Spring 2020?
2. Do you remember your first reaction to COVID?
3. What did your school ask you to do?
4. How did your life change?
5. What would you like to share about those 2 years?
6. Now that you look back, how do you think COVID has affected your overall mental health?
7. If you recall, we had to stay indoors for a few months and outdoor activities were very restricted. How do you think that impacted you?
8. How did you feel at the time?
9. Since you could not meet your friends and classmates, how did you feel?
10. What are your experiences during and after the isolation?
11. What common concerns have you heard from your peers in the past 2 years?
12. Did you feel connected to supports during COVID lockdown? If so, what were the supports?
13. Have you felt the need for any mental health resources?
 - a. Which ones are available?
 - b. Which ones are you using?
 - c. What mental health resources do you wish you had more of?
 - d. What obstacles or barriers have you encountered in accessing mental health resources?
 - e. Do you believe you have support in overcoming these obstacles and barriers?
14. Do you talk about mental health in school and at home?
15. What conversations have you had around mental health at school and at home?
16. What conversations have you had about COVID at school and at home?
17. Is there anything else you would like us to know or anything that we did not ask about that you want to share?
18. Now that you look back, how do you think COVID has affected your overall mental health?
19. Did you feel connected to supports during COVID lockdown? If so, what were the supports?
20. Do you talk about mental health in school and at home?

Appendix B
Survey Packet

Teen and Emerging Adult Mental Health Survey

Q1. My assigned research ID.

Q2. Age

Q3. Gender

- Male
- Female
- Transgender
- Non-binary/third gender
- Prefer not to say

Q4. Race (check all that apply)

- American Indian or Alaskan Native
- Asian
- Black or African American
- Hispanic
- Native Hawaiian or Other Pacific Islander
- White
- Other
- Prefer not to say

Q5. Depend on own income for college expenses

- Somewhat
- Significantly
- Not at all

Q6. Depend on financial aid and scholarships

- Somewhat
- Significantly
- Not at all

Q7. I felt unprepared and worried when I first found out about COVID-19

- Yes
- No
- Unsure
- Prefer not to say

Q8. I felt dizzy, lightheaded, or faint when I read or listened to news about COVID-19

- Rare, less than a day or two
- Several days
- More than 7 days
- Nearly every day

Q9. I had trouble falling or staying asleep because I was thinking about COVID-19

- Rare, less than a day or two
- Several days
- More than 7 days
- Nearly every day

Q10. I felt paralyzed or frozen when I thought about being exposed or exposing my family or friends to COVID-19

- Rare, less than a day or two
- Several days
- More than 7 days
- Nearly every day

Q11. I lost interest in eating when I thought about not seeing my friends going to school.

- Rare, less than a day or two
- Several days
- More than 7 days
- Nearly every day

Q12. I feel like I have something to look forward to when I wake up.

- Yes
- Sometimes
- No

Q13. I felt supported by my school and community during the lockdown.

- Rare, less than a day or two
- Several days
- More than 7 days
- Nearly every day

Q14. I have noticed a change in my grades since COVID-19

- Yes, lower
- Yes, higher
- No change

Q15. In general, I feel happy with the way things are going in my life.

- Yes
- Sometimes
- No

Q16. I have at least one trusted peer that I can talk to about anything and feel supported.

- Yes
- Sometimes
- NO

Q17. I have at least one adult I trust and can talk to about anything and feel supported.

- Yes
- Sometimes
- No

Q18. Overall, I get along with my family members.

- Yes
- Sometimes
- No

Q19. I have missed more than 7 days of school this year.

- Yes
- Sometimes
- No

Q20. I get at least 30 minutes of movement 3 times a week.

- Yes
- No
- Sometimes

Q21. I feel like I get enough rest at night.

- Yes
- Sometimes
- No

Q22. Is there anything else you would like to share?

Q23. Please share your feedback from your experience with participating in the focus group.

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