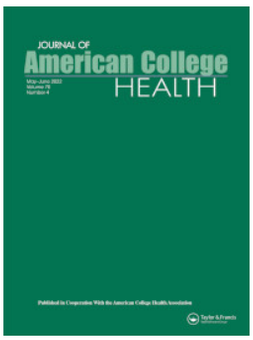

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College students' perceptions of telemental health to address their mental health needs

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ABSTRACT

Objective: To understand the feasibility of using telehealth for mental health services among college students. **Participants:** College students ($N=16$) attending a university in Southern California, 18 years or older, and living in the residential halls. **Methods:** Two face-to-face semi-structured focus groups were conducted using a semi-structured moderator guide. Written consent and a demographic survey were completed. Descriptive thematic analysis was conducted independently by members of the research team. **Results:** Participants reported mixed feelings about their level of comfort using technology to access mental health services. Some participants acknowledged the value of using technology, while many voiced issues of distrust and privacy, in addition to the loss of empathy and personal connection with the mental health practitioner. **Conclusion:** Offering a menu of telehealth options including a hybrid approach (in-person/telehealth) may be necessary to address the issues of comfort, privacy, and trust to effectively reach college students with technology-based mental health services.

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College students; mental health; technology acceptance; telehealth; university; young adults

Introduction

Young adults (ages 18–25) have the highest prevalence of mental illness compared to other adult age groups.[1] In 2018, 8.9 million young adults reported having a mental illness.[2] The proportion of students entering college with preexisting mental health conditions has also increased since 2007.[3] The 2019 Association for University and College Counseling Center Directors (AUCCCD) Annual Survey reported anxiety as the most frequent concern among college students, followed by depression, stress, family concerns, relationship problems, academic performance difficulties, and other items including sleep disturbance, social isolation, trauma, adjusting to a new environment, self-image concerns, and suicidal thoughts.[4] Further, college students have experienced increasing rates of depression and suicidality.[3]

Utilization of mental health services by college students also has increased steadily over recent years. Lipson et al. documented an increase of 15.1% in mental health service utilization between 2007 and 2017 in a sample of 155,026 college students across 196 campuses.[3] Colleges have increasingly used telemental health services to keep up with the increased demand for mental health services. During the 2018-2019 academic year, 47.8% of colleges who completed the AUCCCD Annual Survey reported having at least one service available via telehealth.[4] However, the primary telehealth service available to college students consisted of mental health screening (27.5%) followed by a small percentage of educational modules via Therapist Assisted Online (9.9%), telephone (7.6%) or video (3.4%) counseling sessions, online tools like WellTrack and SilverCloud (5.7%), and other online programs and after-hours services (12.4%). There was a 6811% increase in use of video sessions to provide mental health services on college campuses between March and June 2020 due to the pandemic.[5]

Technology-based mental health care (telemental health) is the use of a technological device to access mental health support services from a remote location rather than in-person/in-office. Digital platforms used for telemental health include mobile text messaging, smartphone applications, websites, computer software, and virtual reality.[6] Telemental health allows patients to receive timely medical advice, diagnosis, monitoring and encouragement, and it provides the equivalent of in-person care for a variety of mental health conditions.[7] Research has demonstrated effective prevention and treatment of psychological issues among young adults using telemental health including depression and anxiety among college students.[6,8,9] In one study, college students described telemental health as convenient, accessible, easy to use, and helpful.[10] However, other studies have concluded that college students prefer in-person/face-to-face services for mental health concerns versus online.[11–13] Issues of privacy, discomfort, and lack of personalized care are cited barriers to using online platforms for mental health care.[10]

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There is a dearth of qualitative data on college students' perceptions of utilizing telemental health. The increased demand for mental health services among college students and the push to utilize telemental health among this population, even prior to the COVID-19 pandemic when services quickly shifted to telehealth, warrants consideration and exploration of telehealth as a sustainable method among this population. This article presents findings on the perceptions of college students living in dormitories and their use of a technological device to access mental health services prior to COVID-19.

Materials and method

Study design

The aim of this qualitative study was to understand and describe the issues surrounding the use of technology to address college students' mental health needs. This study is part of a larger qualitative study conducted to explore the mental health needs of youth and young adults in Los Angeles and Orange County, California.[14] Findings from the larger study were used to inform the development of a pilot mental health training program using telemental health for psychiatric mental health nurse practitioner students. The current study includes analysis of two out of a total of six focus groups, which were conducted at a large 4-year university in Southern California with a diverse student population. The remaining four focus groups were conducted among non-college enrolled youth and young adults and therefore were excluded. The California State University, Long Beach (CSULB) Institutional Review Board (IRB) for the Protection of Human Subjects (IRB) approved all study procedures prior to implementation.

Sampling and participants

Purposive sampling methods were used to recruit students in collaboration with the university's campus housing office. Over 2,500 eligible students received an email from the Office of Housing and Residential Life with information on the study and a link to register if interested using Qualtrics software (Version April 2019, Copyright 2021 Qualtrics, Provo, UT, USA. https://www.qualtrics.com). A total of 90 students registered, providing their name, contact information, age, class standing, and name of their residential village in order to verify eligibility. Program staff verified potential participants' eligibility using the following criteria: (1) 18 years or older; (2) student actively enrolled at the large urban university; and (3) living in the residential halls. Two groups of 15 students were selected using the date and time stamp in the order they submitted their registration. A follow up email with focus group details was sent to eligible selected students by program staff prior to the scheduled date. Fifteen students per group were contacted to participate anticipating 50%–60% participation, which would allow for approximately 7 – 10 students per focus group. Those who registered and were not selected were thanked for their interest via email by program staff. One group of six and one group of ten students participated for a total of 16 college students (mean age = 20 years, 68.8% female).

Data collection

Written informed consent was obtained upon arrival to the scheduled focus group. The two focus groups took place concurrently April 2019 in two separate private conference rooms in the residential halls for ease of access and familiarity. Aliases and unique identification numbers were assigned to ensure confidentiality. Participants completed a brief demographic survey using Qualtrics software on project-owned and password-protected iPads. Two items were developed to measure participants' confidence in the use of a technological device for telehealth: (1) "How comfortable are you with live video-streaming?"; and (2) "How confident are you that you could use a phone or computer for two-way health services?" Response options ranged from 1 = *Not at all comfortable* to 10 = *Extremely comfortable*.

A semi structured focus group guide was designed as part of the larger qualitative study to understand the mental health needs of Hispanic/Latinx and other underserved youth and young adults. To gain college students' perception of using a technological device for mental health services, participants responded to the following: (1) "How would you feel about going to a professional for help?"; and (2) "How would you feel about using your phone or a computer to talk to someone?" Each focus group was conducted by trained research staff which included a moderator, two notetakers, and a board certified Psychiatric Mental Health Nurse Practitioner (PMHNP) to provide supplemental referrals and address any immediate mental health needs raised after the discussions were completed. Focus group discussions were digitally recorded and notetakers took handwritten notes to document nonverbal responses. The moderator, notetakers, and PMHNP debriefed privately at the end of each respective session and completed a debrief form to summarize the session and note key takeaways. Participants received a $20 gift card for their time.

Analysis

Descriptive statistics were analyzed using IBM SPSS (Version 26.0 IBM Corp. Released 2019, Armonk, NY) to report participant characteristics and confidence in the use of a technological device for telehealth. Qualitative data were analyzed using descriptive thematic coding to allow for a flexible approach to explore patterns across the data.[15] Focus group digital recordings were transcribed verbatim, coded and analyzed using Dedoose (Version 8.1.9, 2018, Los Angeles, CA: SocioCultural Research Consultants, LLC, www.dedoose.com) by three trained members of the research team. After each member independently read the transcripts, the team met to develop an initial coding scheme using the session debrief notes as base documents. The transcripts were then independently coded by each team member. Emerging themes within the data were identified. Team members met regularly to discuss and cross-validate codes

and prominent themes in an iterative process for consensus. Quotes which best illustrate prominent themes were selected.

Results

Participants reported an average of two devices for telehealth use. All reported having a smartphone, while 50% reported having a desktop/laptop as an additional device. It is unclear whether other students did not indicate a desktop/laptop because they did not own one, did not have a built-in camera, was not located in a location that provided privacy or whether they did not view it as a device that could be used for telehealth. Participants on average reported being comfortable with accessing live video-streaming and using a phone or computer for two-way health services. See Table 1 for participants' demographic characteristics.

Emerging themes from the qualitative analysis were categorized into three major topics: perceived comfort, perceived usefulness, and perceived barriers.

Perceived comfort

Participants expressed mixed feelings about their level of comfort using technology for mental health services. Some participants were not comfortable at all talking about personal or mental health problems using a technological device and preferred in-person conversations with a mental health professional. For example:

> I wouldn't personally feel very comfortable talking about my personal problems over phone because face to face conversation just has an aura to it that mobile or texting doesn't because their soothing voice…the voice of the other person talking might…the way they talk, the way they move could possibly put you at calm.

For those who were comfortable using a technological device, comfort varied by the type of engagement (e.g., online chat, texting, videoconferencing, phone call with no video). Some participants expressed comfort with seeking help via an online chat to maintain anonymity, but not through a phone or video call, as described by a participant.

> No, just the chat because for me, it's more like, okay, if they see my face, if they hear my voice that kind of takes away from my anonymity. Yeah, I'm not that anonymous anymore. So, just having the opportunity to be a 100% anonymous, kind of drives me toward it. And then once you're comfortable doing that, then I might be open to a phone call or a Skype, and then eventually doing it in person.

Others preferred a phone call without video over an online chat because it allows them to adequately talk about their issues while keeping their anonymity. One participant described their preference:

> But personally, I would prefer a phone call because if I was going to call a friend or a family member, I would go to a phone call first for a problem because especially when I'm talking about my mental health, there's a lot that I want to say and I get tired and lazy typing it all out so I like phone call the best.

Table 1. Sample characteristics ($N = 16$).

Demographic characteristics	*n*	%	SD	Range
Sex				
Male	5	31.3		
Female	11	68.8		
Age in Years*	20		±1.2	18 – 22
Hispanic or Latino	4	25.0		
Race/Ethnicity				
White	9	56.3		
Black	2	12.5		
American Indian/Alaska Native	1	6.3		
Asian/Pacific Islander	3	18.8		
Other	1	6.3		
Technology Access	*n*	%		Range
# of Devices for Telehealth Use*	2		±1.2	2 – 5
Devices for Telehealth Use**				
Smart Phone	16	100		
Tablet	5	31.3		
Computer (desktop or laptop)	8	50.0		
Smart Watch	1	6.3		
Comfort with Live Video-Streaming*	6.9		±3.2	1 – 10
Confidence Utilizing Device for Telehealth*	7.8		±2.2	4 – 10

*Mean and standard deviation.
**Not mutually exclusive.

Perceived usefulness

Some participants acknowledged the value of having the option to use technology to talk to someone about mental health issues; primarily for its ease of use and accessibility. Participants noted that it could help those who need immediate assistance when an in-person meeting is not feasible.

> I think just having that even an option to be available or accessible to certain people is actually really great. I think it's actually a really great idea. Because 9 times out of 10 you're not going to always be in someone's face or things can come at different points of time in a day. So, if it was 10 o'clock at night, you're having a hard time, of course, I'm not able to see somebody. So, I think that's a great alternative to not being able to talk to someone in person face to face.

> I feel like using a computer or when the other thing you said, would be a lot easier for a lot of students especially because like since it, when we always don't have time to go to [counseling center] and like sit down for an hour and talk. But like if we're in our room studying, we feel like we're having a stressful day, we just need to talk to someone right away and we're able to like call them up. I think it'd be so beneficial for people.

Participants also noted the benefit of having the option to choose telehealth or face-to-face based on preference and comfort. This would be particularly useful for college students who need flexibility given their busy schedules.

> "[…] And so, whether you're more comfortable doing it face-to-face or online, they have both options available. So, you don't really have to choose one or the other anymore. Like you can kind of do both or choose whatever works."

Additionally, participants expressed that the option to use technology to ask for help would be useful in combating self-stigma. Participants who internalize feelings of shame for needing mental health services would greatly benefit from an online option, as described by a participant:

> And for me, I've always had a big self-image problem. So, going to [counseling center] or putting yourself in that situation where, you have to admit to yourself you have a problem. When you want to be such a perfect person is really a big thing. I remember someone giving me knowledge about someone's not going to want to go get help, they're going to cover themselves up and wear a hoodie. And I don't wear hoodies, and I don't want to do that. I think that would help a lot of people who are definitely just afraid of like seeking help.

Perceived barriers

Stigma was described a barrier to seeking professional mental health services. Participants described seeking professional help as a last resort for serious mental health issues due to the judgment received from friends, family, and strangers as described by a participant:

> I definitely agree with [name] that there's most definitely a stigma behind it. […] there's a whole notion of if you go to a professional, there's something seriously wrong with you.

Participants agreed that having an online option would be beneficial if a person is hesitant to seek professional help. It could serve as a stepping stone for people to become comfortable expressing their feelings and getting their questions answered by a mental health professional.

> "Yeah, I agree with what [name] said. I kind of feel like online, it's like, if you're kind of hesitant about seeking help, it's a good gateway to get there."

Additionally, several barriers to using telemental health were described by participants. Lack of private space where young adults can have conversations using technology without others overhearing was an issue. This is especially problematic among college students who live on-campus in shared and confined spaces as described by a participant:

> […] But then you have the issue of somebody overhearing you. Most devices that we could Skype, FaceTime, text, email, whatever it is, they're mobile. And so, we don't have necessarily private place to do it. I live at [name] dorms. And I know I can hear every conversation that people across the hall are having.

Participants shared concerns regarding data privacy and security when using technological devices in general, but particularly when utilizing them to discuss personal problems with a mental health professional. For example:

> I don't like the whole communication over media because I am paranoid that somebody could follow it and see where I am, see what I'm saying. Even if it's typing, phone calls, whatever, everything's recorded. So, in therapy sessions, when you're sitting in the room, it's all private, because you turn off the phones, you're the…the person is writing. So no, I would not be okay with it. I would not be able to do it. I would just wait if I had to.

In addition, participants noted the need to educate the public on trusted online mental health tools (hotlines, chat, texting) to increase the use of existing resources. This highlights the need to move beyond just accessibility; and increase awareness of resources and how to use them as one participant described:

> But yeah, having a trusted source I think is a really key point because like I don't like to seek advice from, you know, some random nobodies, who aren't aware or aren't you know trained to handle certain issues.

Additionally, some participants expressed concern with not knowing with certainty who they are communicating with when using a device whether it be chat, phone or video call. Although most participants saw this as a barrier to using a device for mental health services, some saw it as a potential benefit on days when help is needed, but a person does not feel like talking to someone. For example, participants said:

> So then, you know, if you get a hold of their office or something then you can know for sure who you're talking to as opposed to the text option, which would, I think, a lot of people would think "that was really easy", but maybe not trusted.

> And if you're just talking to a screen, it's like, am I talking to a robot? Or who am I actually talking to, but then I also sometimes I just don't want to talk to anybody. Talking to that screen, could be very beneficial. So, it's kind of a mixed.

Despite participants acknowledging the benefits of technological devices and how they connect strangers, authenticity in a client/therapist relationship was highly regarded. Participants acknowledged the benefit of in-person conversations when seeking mental health services and having the ability to interface with a mental health professional, seeing their body language as they respond, and picking up on cues that a person would not be able to pick up on via telehealth. Participants perceived using a technological device would lead to a loss of empathy and connection between the client and professional. For example, participants said:

> "[…] I think there's something special about having an in-person conversation where people are fully present, as opposed to like the online split between multiple things."

> I've started using [counseling center] this semester and I'm really grateful for it. And the person that I'm speaking to, she really does a really good job of…feeling that empathy the way that I need her to…the emotion that I feel, she feels it. So, it really feels like okay, you actually feel me…I'd even argue that…when people do consider therapy as an option of like, on the road to healing and everything, that it's not so much the person that they want, but to actually have someone that feels what they're going through. So, I think that's a big part that you can easily lose when it's behind the screen or just over the telephone. I think like the technology part are great buffers, but if you don't have a follow up or an in-person. I don't really know how long it'll last or how real and genuine it'd feel. I think the convenience, that aspect is there, but in terms of like, the technology aspect, I don't really like and then I also think just in terms of like who else is listening?… I just get paranoid about that stuff, too. So yeah.

Still, some participants acknowledged that although using a device to communicate with a mental health professional can feel impersonal, it could be benefit those who need immediate assistance. Ultimately, a telehealth option is better than not being able to seek professional help at all.

> I do think over phone or other ways other than in person can be a bit impersonal, which can be a big problem. But I think overall, if someone's really down and out, they're going to call or whatever other means of way, which it is. I think you can have obstacles, but at the end of the day, if they need it, they are going to go.

Access

Some participants mentioned access as a potential barrier, acknowledging that not all students have access to a personal device and rely on computer labs on campus. For example, one participant described:

> Not everybody has access to these devices. Some people's only access to an electronic device is the computer lab. So, if maybe there was designated rooms, if you could go in and soundproofed I mean, relatively soundproofed and be able to talk or type with somebody, that would also be a benefit.

Discussion

This study highlights the perceived comfort, usefulness, and barriers of using a technological device to seek mental health services among college students living in dormitories. The qualitative approach provides insight to the variability in college students' preference of telemental health options. College students varied in their level of comfort to seek mental health services on an online platform and using a technological device. Their comfort may have been influenced by whether or not they had sought mental health services previously or their previous experience with a mental health practitioner. The variability in students' preferences (e.g., chat, phone call, or videoconferencing) suggests universities should consider offering a menu of options to allow students to choose the most appropriate modality based on their need and comfort. This would increase access to mental health services and cater to an increasingly diverse group of adults on college campuses. The latest data demonstrates the majority of undergraduate students (43% of full-time, 83% of part-time) are employed[16]; and 22% of college students (about one in five) are parents,[17] highlighting the various responsibilities outside of college coursework and thereby indicating that college students have a diverse set of needs.

Consistent with previous studies, participants expressed preference for in-person mental health services and will need time to increase comfort using telemental health.[12,13,18] For college students who prefer face-to-face mental health services and are not ready to utilize a telehealth option, a hybrid approach could provide a solution to introduce the modality, and increase comfort and trust between the mental health practitioner and this population. The hybrid approach could consist one to two initial in-person sessions followed by ongoing videoconferencing sessions with the flexibility to incorporate additional in-person sessions. A hybrid approach could also help address the issues regarding data privacy and security that are consistent with previous studies[19,20] by using an initial in-person session to inform students about the videoconferencing software or system that would be used and the measures that would be taken to keep their information private and secure once they transition to telemental health. In addition, a hybrid approach would help mitigate the loss of connection noted by participants with the use of technology. More than one in-person session may be considered before transitioning to telemental health to allow students to build a connection with their mental health professional and further develop the patient/practitioner relationship.

For some students, telemental health could mitigate issues related to internal feelings of shame when seeking mental health services and feeling prejudice from others for seeking professional help. Additionally, some participants in this study noted that they were feeling uncomfortable with the lack of anonymity. This supports a need for patients and providers to trust telehealth systems to keep personal information private and secure in order to utilize this platform to access health services.[20] Universities can provide a live chat or phone call option for those who would prefer to receive help using a chat feature or a phone call to remain anonymous. Still, valid concerns exist over privacy and data security.[20] There is a need to advocate for federal policy to address security safeguards and cover data collection, use, and disclosure, for both the intended purpose of the technology and any secondary data uses, such as for analytics as to the use, since telehealth continues to be utilized more frequently given the increasing need for mental health services.[21,22] Considerations for increasing access to private spaces on campus, especially in dormitories and on-campus housing, for students to participate in telemental health services are also needed.

Future research is needed to determine whether students' comfort with telemental health services has increased since 2019. The COVID-19 pandemic not only brought many activities online, including college classes and meetings with other university staff, it also accelerated the expansion and use of telehealth for mental health services.[23] It is possible this experience with online communication will increase their comfort with telemental health services. Conversely, students' craving for in-person interactions after COVID-19 could cause them to prefer in-person mental health care. From a policy perspective, as noted by Huilgol et al., ensuring provider compliance with ongoing changing government regulations and policies, and expanding licensure to increase accessibility will be key to the success and sustainability of telemental health. Finally, there is a need for modification of payment and reimbursement policies with government and private insurances for telemental health to remain at parity with in-person visits and fiscally sustainable.

Limitations

These findings represent a small sample size of college students consisting primarily of female students and those living on-campus. The majority (96%) of undergraduates enrolled at the university where the study took place are commuter students. Moreover, freshmen and sophomores make up the majority of students who live in the residential dormitories, thereby leaving out junior and senior level students who may differ in opinion. Future studies should include commuters and students from various class standings. Additionally, there are inherent biases with the use of focus group methodology. Participants may have altered their responses to conform to others' opinions as a means to fit in, avoid conflict, or to achieve a unified response. Moreover, the authors developed the focus group guide with the intent to develop a telehealth mental health service for college students, therefore seeking practical feedback from

students. Nonetheless, findings from these focus groups provide useful insights to inform the development and/or expansion of telemental health services for college students.

Conclusion

College students are vulnerable to stress and need accessible mental health services, but they often experience barriers to accessing services. It is expected that the need for additional mental health services will continue to grow given increased stress, anxiety, and depression among college students during the COVID-19 pandemic.[21,22] As society transitions back to in-person activities, it is imperative to consider how telemental health can be utilized as a permanent platform to provide mental health services to college students. This research provides baseline information to consider when exploring the expansion of telemental health services within a college setting. It suggests that telemental health can be effective with some students, but other students have concerns about quality of care, data security, and the need for a personal connection with the mental health professional. Further research is recommended to understand college students' lived experiences using telemental health to guide the tailoring of treatment to individuals' needs.

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Conflict of Interest Disclosure

The authors have no conflicts of interest to report. The authors confirm that the research presented in this article met the ethical guidelines, including adherence to the legal requirements, of the United States of America and received approval from the Institutional Review Board of California State University, Long Beach.

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