

EVALUATING USE OF TELEMENTAL HEALTH BY CAMPUS COUNSELING CENTERS
DURING COVID-19

By

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Abstract

It is well-established that the reported rates of mental health difficulties among undergraduate students in the United States have noticeably increased since the mid-2000s. There are a variety of theories as to why this is occurring, but as a result campus counseling centers are overwhelmed with the number of students in need of mental health services. With the onset of coronavirus disease 2019 (COVID-19), mental health became a growing concern worldwide for individuals of all ages. When most institutions of higher education (IHE) sent students home and moved to virtual instruction in the spring semester of 2020, counseling centers had to quickly adopt some form of telemental health (TMH) in order to continue to serve students remotely.

The purpose of this study was to determine how the mental health needs of students were addressed by counseling centers during COVID-19. A survey instrument was created and distributed to counseling center directors, with a goal of determining how TMH was implemented by these centers. All survey participants in this study were using at least one form of telehealth services (videoconferencing) and most were using more than one form. The participants recognized some challenges to the implementation of services, notably technology, licensure, and privacy barriers, but largely suggested that they will continue use of TMH in some form moving forward. They also indicated great comfort with telehealth and a belief in its efficacy compared to in-person services.

Dedication

This dissertation is dedicated to my daughters, Greta and Elsie, both of whom were born during this program. They will not remember the late nights it took to get here, but I hope to instill in them a desire to always be ask questions, to speak up and express their opinions, and to love learning for the sake of learning.

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Introduction

Mental Health of College Students

There is a considerable amount of research to suggest that rates of reported mental health challenges among college students have been increasing rapidly over the last 10-15 years (Dallo, 2018; Duffy et al., 2019; Eisenberg et al., 2011; Lipson et al., 2015; Lipson et al., 2019; Oswalt et al., 2019; Zivin et al., 2009). Most commonly, students are presenting with symptoms of anxiety and depression. While not all students receive a clinical diagnosis, there is evidence that these symptoms can interfere with their schoolwork and their ability to thrive as part of the campus community (Beiter et al., 2015; Canto et al., 2017; Eisenberg et al., 2009; English & Campbell, 2019; Lipson et al., 2015; Kitzrow, 2003; Jones et al., 2018).

This drastic increase in reported mental health difficulties has been attributed to several different factors including differences in parenting (Barton & Hirsch, 2016; Greenberger et al., 2008; Lukianoff & Haidt, 2018) and increased use of social media resulting in unhealthy ideals and self-image (Griffin, 2015; Mills, 2016; Lattie, Lipson & Eisenberg, 2019; Rasmussen, 2020; Tandoc et al., 2015; Twenge, 2017; Twenge et al., 2018). Other researchers speculate, positively, that a reduction in the stigma surrounding mental illness is resulting in more people being open about their struggles, rather than an actual increase in affected persons (Active Minds, 2020; Duffy, Twenge & Joiner, 2019; Lukianoff & Haidt, 2018; Twenge, 2017; Xiao et al., 2018). Whatever the cause, studies looking at the mental health of the general population show that this dramatic increase in reported symptoms appears to be exclusive to the college-aged population rather than a global increase across all generations.

COVID-19 and Mental Health

With the onset of coronavirus disease 2019 (COVID-19) in the spring of 2020, concerns about mental health in the face of a pandemic and ensuing quarantine were present worldwide (Hamza et al., 2020; Rajkumar, 2020; Shuja et al., 2020; Vasan, 2020; Wang et al., 2020; Zhu et al., 2021). Data collected looking specifically at the impact of COVID on mental health consistently found that the college-age group (18 years through 25 years) were more likely to report symptoms of anxiety and depression than any other age group (CDC, 2019; Hamza et al., 2020; MHA, 2022; Sahu, 2020; SAMHSA, 2020). This is despite the generally lower physiological risk of severe COVID symptoms and the likely absence of some financial, occupational, or childcare-related concerns faced by older adults.

Counseling Center Transition to TMH

Counseling centers at most IHEs, who were already under-resourced prior to the pandemic (LeViness et al., 2020), were suddenly forced to transition all services to a telehealth model when students were sent home in the spring semester of 2020 and moved to virtual instruction. While telehealth is not a new concept, it was not widely used in healthcare and especially not by counseling centers prior to COVID (LeViness et al., 2020). There is good evidence to support the efficacy of telehealth, and specifically telemental health (TMH), for certain patient populations and diagnoses (Davies, Morriss & Glazebrook, 2014; Farrer et al., 2013; Spek et al., 2007; Travers & Benton, 2014). There are a variety of modalities of TMH including video, phone, asynchronous or synchronous messaging, and app-based modules to promote mental wellness. Students, who are well-versed in technology, have generally shown good acceptance of (and occasionally a preference for) telehealth over in-person services (Dunbar et al., 2018; Gibbons et al., 2019; Nobleza et al., 2019; Williams et al., 2014).

That said, the speed at which these centers had to begin offering services, ideally in a HIPAA-compliant manner, was quite challenging. Technology infrastructure had to be built, professional and administrative staff members needed to be trained, and there was a heavy reliance on a stable internet connection and the creation of safe and private space by the student in their home environment.

Theoretical Framework

This study was designed under the framework of change theory. Outlined by Lewin in 1947, change theory underpins what is colloquially referred to today as the “new normal.” It involves a three-stage process: unfreezing, change, and refreezing. COVID presented a need for a rapid unfreezing, or restructuring, of existing protocols. This survey sought to uncover more details about the unfreezing and change phases of the implementation of TMH by counseling centers, and then distribute this data to ensure that professionals would be further informed by the experience of others when refreezing.

Purpose of Study

The purpose of this study was to determine what TMH models were implemented at different IHEs, the providers’ impressions of TMH, and their outlook on whether it will remain a part of their service offerings even though students have largely returned to their residential campuses. Because of the novelty of these systems and the rapidity of their implementation, it was likely that there was some degree of variability in what counseling centers chose to offer, and likewise some degree of variability in their success in doing so. By gathering information on the systems of multiple institutions and the providers’ impressions of those systems, there can be some clarity as to what was offered and what providers may or may not continue to use even though students have largely returned to residential campus life and in-person instruction. It is

valuable to obtain this quantitative data as well as some qualitative impressions of the professionals who are using TMH routinely.

Research Questions

The main question in this study was: How was students' mental health addressed by institutions of higher education (IHE) during the COVID-19 pandemic? Sub-questions included: What were the barriers and challenges to offering TMH services? How likely are counseling centers to continue using TMH in some form, even with students primarily on campus? Are there certain institutional factors correlated with intention to continue remote services long term?

Significance of the Study

This study was conducted at a very specific moment in history where the status quo was challenged across all healthcare fields. Telehealth was forced upon patients and providers worldwide, but there is good evidence to show that it is efficacious and can expand access to care for many individuals. Now that the infrastructure has been built, professionals are trained, and patients have some exposure, it is likely that it will persevere in some form across multiple fields. Looking at the use of telehealth at campus counseling centers is only a small piece of this phenomenon but has the potential to be highly influential because of the percentage of this population affected by mental health struggles.

Review of Literature

Mental Health of College Students

Students entering institutions of higher education (IHE) since the mid-2000s are the most psychologically distressed generation to ever arrive on campus (Canto et al., 2017; National Council on Disability, 2017). Some students begin college with pre-existing mental health conditions, while others develop symptoms when faced with the added stress and pressures of the college experience (Canto et al., 2017; Griffin, 2015; Parker & Dickson, 2020; Ryan et al., 2010). Approximately half of mental illnesses have first onset in the early twenties (Active Minds, 2020; Lipson et al., 2015; Oswalt et al., 2019).

General Student Population

The American College Health Association (ACHA) National College Health Assessment (NCHA) and the Healthy Minds Study (HMS) are two large-scale survey studies often referenced in relation to studying the mental health of undergraduate students. The NCHA is administered in the Fall and Spring semesters to undergraduate and graduate students to inquire about their physical and mental health behaviors (ACHA, 2021).

The most recently available NCHA dataset is from Fall of 2021 and included responses from 23,600 undergraduate students at 41 IHEs (ACHA, 2021). When asked about factors impeding academic performance, the most reported in the Spring 2021 dataset were anxiety (33.7%), depression (24.6%) and stress (42.4%) (ACHA, 2021). It is important to note that there are several options listed (i.e., injury, short-term illness and sleep difficulties) but the most reported are all mental health difficulties. Additionally, these are based on self-report and therefore there may be some overlap or differing definitions of “stress” versus “anxiety” among students. When asked about stress level, 49.2 percent reported moderate stress and 30.9 percent

reported high stress over the last 30 days. Additionally, 27.3 percent reported receiving an official diagnosis of anxiety and 21.5 percent with depression, 18 percent reporting both. Almost one third (29.6%) reported receiving psychological or mental health services within the last year (ACHA, 2021).

The HMS is administered online to undergraduate and graduate students on an annual basis and includes several standardized instruments, including the Patient Health Questionnaire (PHQ-9) for depression and the General Anxiety Disorder (GAD-7) instrument for anxiety (Healthy Minds Network, 2020a). The Winter/Spring 2021 survey included 103,478 responses from students attending 102 IHEs (Healthy Minds Network, 2021). Based on PHQ-9 and GAD-7 results, 41 percent of students scored in the moderate and major categories for depression, and 34 percent had GAD-7 results consistent with moderate or severe anxiety. When asked if they currently needed help for emotional or mental health problems, 78 percent provided affirmative responses (“strongly agree,” “agree,” and “somewhat agree”) and yet only 30 percent reported receiving mental health services. The Flourishing Scale is used to measure the student’s own perception of their success; in this dataset only 38 percent of participating students scored in a range indicative of positive mental health (Healthy Minds Network, 2021).

These publicly available datasets have been utilized in several cohort analysis studies performed by analyzing trends in the NCHA and/or HMS data over time (Dallo, 2018; Duffy et al., 2019; Eisenberg et al., 2011; Lipson et al., 2015; Lipson et al., 2019; Oswalt et al., 2019; Zivin et al., 2009). All have shown alarming increases in reported mental health issues among students since the mid-2000s. One study found that all assessed variables (anger, depression, anxiety, low flourishing, non-suicidal self-injury, suicidal ideation, suicide plans, and suicide attempts) increased significantly from the mid-2000s to 2018 (Duffy et al., 2019). Examination

of the NCHA data showed depression and anxiety increased by 34 percent and 24 percent, respectively, between 2011 and 2018. For HMS data, reports of moderate or severe depression increased by 77 percent from 2007 to 2017, and moderate or severe anxiety by 92 percent from 2013-2017 (Duffy et al., 2019). The increase in reported mental health issues is not exclusive to one racial or ethnic group, gender group, or sexual orientation; it is pervasive across all types of students and IHEs (Eisenberg et al., 2011; Lipson et al., 2015; Twenge, 2017). Data from both the NCHA and HMS provides a strong foundation for concern about the mental health of undergraduate students.

Students Seeking Services

The Center for Collegiate Mental Health (CCMH) publishes an annual report specifically about college students who are receiving mental health services (not the general student population) by utilizing information obtained from campus counseling centers (CCMH, 2022). In the report for the 2020-2021 academic year, de-identified data from 153,233 college students attending 180 IHEs in the United States, Canada, and the United Kingdom were aggregated from their respective campus counseling centers and analyzed. Anxiety, stress and depression are shown to be the most common concerns presented by students to their counseling centers, with general upward trends in all three each year since data collection began in 2013. This report also showed notable increases in eating disorders, family distress, and academic distress since 2013 (CCMH, 2022).

One study examined CCMH data from 2010-2015 and found significant increases in reports of anxiety and depression and increases in more severe signs of mental illness such as suicidal thoughts and injurious behavior (Xiao et al., 2017). Unlike many researchers looking at this data, these authors assert that the classification of a mental health “crisis” is overblown,

because not all reported symptoms of mental illness (such as substance abuse and eating disorders) have increased over time. However, research has shown that anxiety specifically results in lower academic performance and higher dropout rates (Beiter et al., 2015; Eisenberg et al., 2009; Lipson et al., 2015; Kitzrow, 2003; Jones et al., 2018), an increase in risky behaviors such as substance abuse and even suicide attempts (Beiter et al., 2015; Canto et al., 2017; Jones et al., 2018), and that mental health concerns such as depression account for approximately half of withdrawals from IHEs (English & Campbell, 2019). College students who screen positively for depression are almost two times more likely to drop out than those who do not (Lipson et al., 2015). A diagnosis of depression is also associated with increased alcohol consumption, risk of eating disorders, suicidal tendencies, and poorer overall physical health (Williams et al., 2014). Like the NCHA and HMS, CCMH data consistently shows that students of all races, ethnicities, genders, and sexual orientation are experiencing similar levels of mental health issues, so all students are at risk (CCMH, 2020; Jones et al., 2018). Even if not all reported mental health difficulties have increased in the last decade, the extreme growth in reports of anxiety and depression among students is concerning to IHEs.

Conclusions about rates of mental health difficulties are limited by self-report bias inherent in survey data. Some would argue that students who are experiencing mental health concerns would be more likely to complete the survey than those who are not (Healthy Minds Network, 2020a). It is important to note that the opposite could also be true: students who are experiencing mental health concerns may not participate because of the energy or effort involved in survey completion, or because doing so is triggering. That said, research has routinely shown that survey studies of this nature do not put individuals at risk for worsening existing symptoms of mental illness (Hamza et al., 2020). Other researchers state that students are likely to

exaggerate their symptoms and classify themselves as having anxiety when they may be simply experiencing healthy stress and not something pathological (Saide & McCaffree, 2019). In this way, the percentage of students with reported mental health concerns could be inflated. But when students feel that they are in crisis, it interferes not only with schoolwork but their general ability to meet their own needs, solve problems, and remain organized (Canto et al., 2017). The ability of a student to learn independence in managing their schoolwork, social life, finances, and overall wellness is critical to their success and development of a solid foundation in young adulthood (Parker & Dickson, 2020). Therefore, determining whether these students would meet diagnostic criteria for anxiety or depression seems less urgent than addressing their immediate symptoms to support their success in school.

Comparison to Mental Health in General Population

A rise in mental health symptoms among college students since the mid-2000s is well-documented, but is this a generational, context-specific issue or is it pervasive across individuals of all ages in this time period? The Substance Abuse and Mental Health Services Administration (SAMHSA), a division of the U.S. Department of Health and Human Services, conducts the annual National Survey on Drug Use and Health (NSDUH) to examine tobacco, alcohol, and drug use as well as mental health and other health-related issues among the general population in the United States. This is a household survey, and does not capture individuals who are incarcerated, hospitalized, in nursing homes, or homeless (SAMHSA, 2020). This survey provides estimates of “any mental illness” (AMI) among adults aged 18 or older, and this data was examined over time since initial collection in 2008; the 2019 dataset included 50,731 adult participants. Among the total group of adults, the prevalence of AMI increased from 17.7 percent in 2008 to 20.6 percent in 2019. When broken down by age group, AMI among 18-25-year-olds

increased from 18.5 percent in 2008 to 29.4 percent in 2019; statistically significant increases were noted each year from 2008 to 2019. AMI among 26-49-year-olds increased from 20.7 percent in 2008 to 25 percent in 2019. Statistically significant increases were noted each year from 2008 to 2019. In contrast, the percentage of AMI among adults over 50 has remained relatively stable from 2008 to 2019, with 14.1 percent reported in 2019. The same is true for reports of serious mental illness, though at a much lower prevalence overall (SAMHSA, 2020). These data would show that 18-25-year-olds are the most affected by mental illness, or the most likely age group to report symptoms of AMI. One limitation of this data is that it is not broken down by diagnosis.

The Centers for Disease Control and Prevention (CDC) also conducts an annual survey on a similar topic entitled the Behavioral Risk Factor Surveillance System (BRFSS). This survey is conducted via phone among individuals 18 years and older. Like the SAMHSA data, this methodology excludes incarcerated, hospitalized, and homeless individuals as well as those in long-term care facilities. The 2019 dataset includes over 400,000 individuals; of those who participated, only 0.43 percent stated that they lived in college housing, so it is reasonable to assume that the data reflects the general adult population (CDC, 2019). Questions in this survey pertaining to mental health include “How many days during the past 30 days was your mental health not good?” Approximately 24 percent stated between 1 and 13 days, 13 percent said between 14-30 days, and just over 60 percent said none (CDC, 2019). This question was first added to the survey in 2011, at which time 35 percent of respondents reported between 1 and 30 days were “not good” (the data from that year was not categorized to offer 1-13 or 13+ days), and 63 percent said none (CDC, 2011). The other questions in the BRFSS are phrased in a way that makes it difficult to extract mental health issues specifically, because they include mental

and physical health. For example: “Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?” There are not follow-up questions to specify what symptoms, specifically, are contributing to these feelings, so it would be impossible to say for certain what percentage provided an affirmative answer due to mental health concerns (CDC, 2019). The one question regarding poor mental health days suggests reflect a relatively stable percentage of the general adult population having mental health challenges between 2011 and 2019, though the lack of specificity differing mental health symptoms makes it difficult to draw firm conclusions.

Mental Health America (MHA) is a community-based nonprofit organization which offers information regarding mental health to the general public and online screening programs for common mental health concerns such as anxiety and depression. Between 2014 and September of 2020, over 6 million people took a screen with 1.5 million of those individuals screening between January of 2020 and September of 2020 (MHA, 2020a). This makes it a very large dataset; however, it is important to note that this is a help-seeking population rather than the general population. This means that individuals are more likely to screen positive for mental health conditions than the general population. Additionally, it does not reflect individuals without internet access such as those who are homeless or incarcerated. MHA uses the data collected from their screeners in combination with publicly available, longitudinal survey data such as the NSDUH and BRFSS, as well as the National Survey of Children’s Health (NSCH) to present prevalence estimates of mental illness across all states. The data is separated by youth (12-17 years) and adults (18 years and older) (MHA, 2020b). The most recent report available reflects data collected through 2019, at which time the prevalence of any mental illness among those over age 18 was 19.86 percent, compared to 18.12 percent in 2012 (MHA, 2022). This

specific metric is not provided for those aged 12-17, however the report states that the incidence of at least one major depressive episode for the youth age group within the last year was 15.08 percent (MHA, 2022). This is a noticeable increase compared to the first publication of this report in 2015, when only 8.66 percent of youth reported at least one major depressive episode (MHA, 2015). The year(s) of data collection are not specified in this report; however, it is reasonable to assume that this figure was generated sometime between 2010-2014 based on the publication time frame of later reports (MHA, 2015). The increase in reported major depressive episodes among youth is in good agreement with earlier data: individuals who were in the 12-17 age group between 2010 and 2014 are the age of current college students or recent college graduates in 2022.

Looking more closely at youth data, the Monitoring the Future (MtF) and Youth Risk Behavior Surveillance System (YRBSS) are survey models comparable to the NCHA and HMS, but for younger students (13-18 years) (Twenge et al., 2018). A cohort analysis study was performed using data from these survey studies from 1991-2016, and a significant increase in reported mental health symptoms was noted beginning in 2012. Self-esteem, life satisfaction, and happiness were all ranked lower by Generation Z adolescents (born after 1995) than Millennial (born 1981-1994) and Generation X (born 1965-1980) adolescents did at the same age, and more of them committed suicide. In contrast, the researchers note that when this survey was completed by Generation X and Millennial adolescents between 1991-2011, results showed stable or even improving psychological well-being (Twenge et al., 2018).

Collectively, these datasets reflect a general stability in reported mental health challenges among American adults, and those including youth data show a marked increase in mental health challenges among younger respondents since the mid 2000s. With the broad categorization of

“adults” as 18 and older, it can be difficult to separate college students from the general adult population. Additionally, most of these surveys generalize “mental illness” rather than providing specific diagnoses such as anxiety and depression. That said, these data would suggest that the marked increases in reported mental illness among college students are not paralleled in the general population.

Some have attributed the explosion of reports of mental health difficulties among younger individuals to pervasive use of social media (Griffin, 2015; Mills, 2016; Lattie, Lipson & Eisenberg, 2019; Rasmussen, 2020; Tandoc et al., 2015; Twenge, 2017; Twenge et al., 2018), changes in parenting styles (Barton & Hirsch, 2016; Greenberger et al., 2008; Lukianoff & Haidt, 2018), or a reduction in the stigma surrounding mental illness (Active Minds, 2020; Duffy, Twenge & Joiner, 2019; Lukianoff & Haidt, 2018; Twenge, 2017; Xiao et al., 2018), among other possible factors. It is difficult to truly isolate and study any one factor and how it could be contributing to the mental health status of college students (Dubner & Duckworth, 2020), and it is outside the scope of this project to delve too deeply into these issues. Whether or not mental health issues are more prevalent among college students than other age groups and regardless of cause, IHEs have a unique opportunity to address mental health issues among the student body before they enter “the real world.” The goal of this research is to address how counseling centers are managing to treat the growing number of students in need, particularly in the face of a global pandemic.

Impact of COVID-19

Influence of Global Pandemic on Mental Health

Many researchers and mental health professionals have raised red flags about the potential implications of the coronavirus disease 2019 (COVID-19) pandemic on the mental

health of the general population (Hamza et al., 2020; Rajkumar, 2020; Shuja et al., 2020; Vasan, 2020; Wang et al., 2020; Zhu et al., 2021). The social isolation, uncertainty about physical health, financial concerns, and reduced access to supports are factors affecting individuals worldwide (Hamza et al., 2020). It is challenging to truly isolate the effect of COVID-19 on the mental health of individuals, because in many cases there is a lack of pre-COVID-19 data for comparison (Hamza et al., 2020).

U.S. data. The CDC initiated the Household Pulse Survey as a collaboration between the National Center for Health Statistics and the Census Bureau (U.S. Census Bureau, 2021). This 20-minute online survey began in April of 2020 shortly following the onset of the pandemic and collects data regarding anxiety and depression symptoms using the Patient Health Questionnaire (PHQ-2) and two-item Generalized Anxiety Disorder survey (GAD-2). The sample sizes for each phase range from about 40,000 individuals to almost 120,000 individuals, and the intention was to use clinically validated tools which can be easily disseminated via web to participants, and the results could be quickly and easily disseminated as well. Both the mean percentages for each one- or two-week phase and 95 percent confidence intervals are reported. An additional benefit of this data is that it is broken down by age group, sex, gender identity, sexual orientation, ethnicity, education, disability status, and state. Indicators of anxiety and depression are consistently highest among 18-29-year-olds, compared to older age groups broken down by decade. For example, data collected one year after the onset of the COVID-19 quarantine (March 17-March 29, 2021) showed 50.7 percent of 18-29-year-olds were exhibiting symptoms of anxiety or depression, compared to the prevalence of the general population at 35.1 percent. There was a general trend of decreasing prevalence of symptoms as age increased, with the

lowest prevalence at 20.9 percent for 70-79-year-olds and 22.5 percent for those 80 years and older (U.S. Census Bureau, 2021).

In June of 2020, the CDC performed a much smaller-scale study, surveying 5,412 individuals over the age of 18 regarding their mental health specifically related to COVID-19 (Czeisler et al, 2020). The survey utilized clinically validated screening tools for anxiety, depression, trauma- and stressor-related disease (TSRD), and suicidal ideation. The researchers compared these results to the National Health Interview Survey (NHIS) data from Spring of 2019, though they acknowledge that these are not identical instruments and therefore not directly comparable. The prevalence of symptoms of anxiety disorder was three times greater in 2020 than in 2019, and the prevalence of symptoms of depression was four times greater in 2020 than in 2019. When the 2020 data was broken down by age group, individuals in the 18-24-year-old age group had significantly higher reported symptoms of anxiety and depression, COVID-related TSRD, use of substances to cope with COVID-related stress, and serious suicidal ideation than any other age group. In this dataset, 74.9 percent of the 731 respondents in the 18-24 age group reported one or more adverse mental or behavioral health symptoms (Czeisler et al., 2020).

The 2020 data collection methods for the SAMHSA National Survey on Drug Use and Health (NSDUH) were adjusted due to COVID: rather than in-person interviews, most questionnaires were obtained via an online survey beginning in October of 2020, without any data collection at all occurring from March to September of 2020 (SAMHSA, 2021). The researchers stress that data obtained in 2020 cannot be directly compared to prior years, nor can any noticeable change be attributed directly to COVID. It is possible that the pandemic and quarantine were responsible for a change in mental health, but it is also possible that the change in measurement techniques was more or less sensitive than prior years. There were some

additional questions specifically related to COVID in this dataset. Participants were asked how much of a negative effect the pandemic had on their emotional or mental health. Of the individuals who reported they did not have any degree of diagnosable mental illness, 57.6 percent reported the pandemic had some effect on their emotional or mental health, and 10.8 percent reported “quite a bit or a lot.” Among those who reported some pre-existing degree of any mental illness, 44.5 percent reported COVID had some effect on their emotional or mental health, and 45.2 percent reported a large effect. Access to mental health care was also reportedly impacted, with 58.3 percent of adults with any mental illness reporting that their appointments were moved to telehealth, 38.7 percent reporting delays or cancelled appointments, and 10.7 percent reporting they were unable to access the care they needed which resulted in negative impacts on their mental health (SAMHSA, 2021).

Mental Health America (MHA) provides online screening tools for anxiety and depression (MHA, 2021). In 2020, there was a 93 percent increase in the number of people who took an anxiety screening compared to 2019, and a 62 percent increase in the number of people who took a depression screen compared to 2019. In September of 2020, over 80 percent of individuals taking a screen were scoring in the moderate to severe ranges for both anxiety and depression, which is a gradual increase from January of 2020. In 2020, 38 percent of screens were taken by 11-17-year-olds and 32 percent were taken by 18-24-year-olds. Approximately 83 percent of 11-17-year-olds screened positive for anxiety and 90 percent positive for depression, and approximately 80 percent of 18-24-year-olds screened positive for anxiety and 86 percent for depression. It is important to reiterate that this is a help-seeking population and therefore prevalence is expected to be higher than the general population. It is also important to note that

there could be factors other than the pandemic contributing to the rise in mental health symptoms in 2020, but these numbers are alarming nonetheless (MHA, 2021).

The American Psychological Association (APA) conducts an annual survey study entitled “Stress in America”. This looks specifically at societal factors contributing to general stress in the population, such as mass shootings, racial discrimination, and the Presidential election (APA, 2019). The sample size is considerably smaller than the above-mentioned surveys: 3,617 adults completed the online survey in 2019 and 3,409 in 2020. In 2020, COVID-19 was a main source of stress worldwide. One unique feature of this survey is that the results are broken down by generation. Interestingly, Americans categorized as Generation Z (born between 1995 and 2012, which includes today’s college students) were the most likely to report that their mental health is worse than this time last year; 34 percent of respondents in Generation Z reported worse mental health, while only 19 percent of Millennials (born 1981-1994) reported worse mental health (APA, 2020). One would think that the population most vulnerable to serious complications from COVID-19 (older adults) would experience the highest levels of stress. But according to this data, only 12 percent of Baby Boomers (born 1946-1964) and 8 percent of older adults (born before 1946) reported worse mental health in 2020 than in 2019 (APA, 2020). In 2021, individuals responded to a Likert-scale question stating, “Sometimes I am so stressed about the coronavirus pandemic that I struggle to even make basic decisions” (APA, 2021a). Again, younger respondents were the most likely to report they “strongly agree” or “somewhat agree” with the statement, with 37 percent of Generation Z adults and 48 percent of Millennials responding affirmatively, compared to only 14 percent of Baby Boomers and 3 percent of older adults (APA, 2021a).

Global data. These results are not exclusive to the United States. A similar study was performed in Italy in mid-March of 2020; 2,766 individuals over the age of 18 completed an online survey which included the Depression, Anxiety and Stress Scale (DASS-21) as well as sociodemographic variables and questions specific to their quarantine situation (Mazza et al., 2020). Like the CDC data, the youngest respondents had the highest reported levels of stress and anxiety on the DASS-21. The researchers venture that this could be related to greater social media use by this population, which can trigger stress. There was no significant association found between age and depression in this sample. One limitation of this study was the lack of pre-pandemic results for comparison (Mazza et al., 2020).

Researchers in China also utilized the DASS-21 in an online survey distributed to individuals located in 194 Chinese cities in February of 2020 (Wang et al., 2020). The survey was initially distributed to university students, and they were encouraged to pass it on to others via a snowball sampling strategy; the researchers acknowledge that the lack of random sampling limits the generalizability of results. The final response group included 1,210 individuals aged 12-59 years. “Student status” was associated with higher stress and anxiety scores, though the researchers do not specify whether this also included middle school and high school students in addition to university students. The youngest age group used for analysis was 12-21 years, which would presumably include all types of traditional students (Wang et al., 2020).

When all individuals are faced with the same stressor, a global pandemic, are college-age individuals the most likely to experience a negative impact on their mental health, or the most likely to report it? This trend is exhibited not just in the United States but in other countries around the world.

Mental Health of Undergraduate Students During COVID-19

College students have specific fears related to the impact of COVID-19, including transition to virtual learning, loss of independence with campus closures, and delay in graduation and entry into the workforce (Hamza et al., 2020; Sahu, 2020). As of March 25, 2020, 150 countries had closed educational institutions due to the outbreak of COVID-19, leaving over 80 percent of the world's students relying on virtual instruction (Sahu, 2020). By April 2020, this increased to 194 countries and over 91 percent of students worldwide (Hamza et al., 2020). Specifically in the United States, over 1,100 IHEs had closed as of March 26, 2020 (CNBC, 2020).

There have been some preliminary studies completed on the mental health impacts of COVID-19 on college students, specifically. The Healthy Minds Network and ACHA collaborated on a set of survey questions specifically related to students' experiences with COVID-19 and administered them to students at 14 IHEs (Healthy Minds Network & ACHA, 2020). Of specific interest, it asked about access to mental health care in addition to mental health symptoms. The survey was completed by 18,764 students from late March through May of 2020. The responses were compared to Fall 2019 data from the HMS and NCHA; the rates of depression and impaired academics due to mental health concerns were higher from March-May of 2020 than in 2019 for the HMS. Reports of anxiety were stable, while reports of binge drinking and illicit substance use were lower. Comparison to the NCHA data from 2019 regarding impediments to academic performance showed increases in both anxiety (31.1% in 2020 and 27.8% in 2019) and depression (24.4% in 2020 and 22.1% in 2019). Approximately 42 percent of students reported seeking mental health care within the last 12 months; of those, 60

percent reported it was more difficult to access care than pre-COVID (Healthy Minds Network & ACHA, 2020).

One university in North Carolina collected mental health data on a group of 419 first-year students in October of 2019 and January of 2020, and were able to collect comparison data after the onset of the pandemic and ensuing quarantine (Fruehwirth, Biswas, & Perreira, 2021). An advantage to this methodology, aside from participants serving as their own pre-COVID controls, is the lack of reliance on recall of mental health state at an earlier point in time. The Patient Health Questionnaire Depression Scale (PHQ-8) and Generalized Anxiety Disorder scale (GAD-7) were used in addition to questions related to educational and economic stressors, psychosocial resources, and demographic information. There was a 39.8 percent increase in moderate-severe anxiety and a 47.9 percent increase in moderate-severe depression. The results showed that students who were already exhibiting symptoms of anxiety and depression pre-pandemic were more likely to experience severe symptoms during the pandemic. The most significant increases in symptoms occurred for students reporting a sexual or gender minority (SGM), while Hispanic, first-generation, and SGM students reported the greatest difficulties with distance learning. There are limitations to this study, most notably that it is only one university and only first year students. Additionally, the researchers acknowledge that the police killings and general threats to the Black community was a significant factor in the mental health status of minority students aside from COVID-19 (Fruehwirth, Biswas, & Perreira, 2021).

A nearly identical methodology was used at another institution with 371 first-year students completing self-report measures regarding their mental and physical health at two intervals prior to the onset of the pandemic, and again in April of 2020 (Zimmerman, Bledsoe, & Papa, 2021). Like the sample described above, students exhibited increased reports of anxiety

and depression, particularly among those who had reported these symptoms pre-pandemic. In this sample, women and Latinx students displayed the largest increases in symptoms of anxiety and depression following the onset of the pandemic (Zimmerman, Bledsoe, & Papa, 2021).

In a third study comparing the mental health of first year students before and after the onset of COVID-19, researchers were able to also examine the effect of a voluntary wellness program instituted by the university (Copeland et al., 2021). Approximately 70 percent of the students in the study had enrolled in this app-based program to promote healthy decision-making and mood regulation. The researchers found that participation in the program mitigated some of the mental health effects of COVID, specifically internalizing symptoms like depression and anxiety, as well as attention. They acknowledged that students who choose to enroll may have a greater interest in preserving their emotional wellness but were encouraged that all students exhibited general hopefulness for the future. They urge other institutions to track and promote the emotional and mental health of their students with the same seriousness that they track their physical health (Copeland et al., 2021).

One group of researchers surveyed 733 students at one Canadian IHE in May of 2019 and May of 2020 (Hamza et al., 2020). In 2020, they were not specifically asked about the impact of COVID-19 for the purposes of measure continuity. The results showed that students with pre-existing mental health challenges in May of 2019 had relatively stable or even improved results in May of 2020, while students without any mental health challenges in May of 2019 were more likely to demonstrate new psychological distress in May of 2020. These results were surprising to the researchers, who had hypothesized that those who were struggling prior to the pandemic would be experiencing increased levels of distress. However, they speculate that perhaps those students with pre-existing diagnoses were accustomed to feeling somewhat isolated, whereas

students who did not previously feel this way were having greater difficulty adjusting to social distancing. Additionally, those with pre-existing diagnoses may have had established services and supports. The researchers also acknowledged that, though the sample size was large, all the respondents were students at one institution and therefore results may not be generalizable to the entire population of university students (Hamza et al., 2020). Additionally, it is possible that students who were already experiencing distress returned to living situations which offered support, or that those who were struggling with living independently found it easier to return home. This would not apply to any students who had to return to an unsafe or unstable home following campus closures, though many campuses made exceptions for students in this situation or those who were international (Hamza et al., 2020).

These results were echoed by CCMH, who published a brief comparison of psychological distress among students who had been seen by their counseling center during the 2018-2019 academic year to determine whether there had been a significant increase in their symptoms following shutdowns in March of 2020 (Janis, 2020). These data do not show significant differences from 2019 to 2020, except for slightly higher reports of academic and family distress. Specifically, students reported more difficulty staying motivated for classes, and more frequently agreed with the statement “my family gets on my nerves” (Janis, 2020). A British therapist commented on the generally positive or neutral response from individuals with pre-existing mental health conditions prior to COVID-19, stating that many of these patients no longer feel alone in their depression and anxiety, and/or that the pandemic has put some of their struggles into perspective (Brown, 2020). While individuals with pre-existing mental health difficulties may not necessarily be experiencing an increase in suffering, there is a large population of people who are newly reporting anxiety and depression since the pandemic began (Brown,

2020). Counseling center directors have reported that they were overwhelmed with new students seeking services at the onset of COVID (Anderson, 2020b).

Though in many ways it may seem the height of the pandemic is over, there are important things for counseling centers, and IHEs in general, to consider in moving forward. As stated by Lederer and colleagues (2021): “Historically, college students have been overlooked as a primary population for health initiatives due to misconceptions that they are a privileged, resourced, and healthy group when in fact they are a sizeable population with distinct health needs” (p. 15). There are some who might have felt that the transition to online learning for college students was a small price to pay in the grand scheme of the disastrous effects of COVID-19. However, missing the milestones and social interaction expected with college life is not inconsequential. A sense of belonging is directly related to the social, psychological, and academic outcomes for a college student (Lederer et al., 2021). The abrupt removal of these opportunities for engagement with other students and connection with the greater campus community could have lasting consequences on the mental health of college students for this reason. In the 2021 CCMH annual report, 72.4 percent of students reported their mental health was negatively impacted by COVID-19. More than half of the students also reported that the pandemic negatively affected their motivation, academics, experiences or opportunities, and their sense of loneliness and isolation (CCMH, 2022).

Many college students faced food and/or housing insecurities as a result of being sent home in March of 2020 (Lederer et al., 2021). Others had to return to a home environment that may have lacked reliable internet or other resources needed to continue their course of study, such as quiet or private rooms. Additionally, because this shift to online learning had to occur so quickly, universal design was not always considered which could have limited learning outcomes

for many students (Lederer et al., 2021). The Centers for Collegiate Mental Health (CCMH) data from the 2020-2021 academic year showed a significant increase in reports of academic distress by students seeking services from the counseling center, which was timed with the shift to online learning (CCMH, 2022).

Furthermore, students of Asian descent faced higher rates of discrimination and xenophobia, which put added stress on those individuals. The structural racism of the healthcare system left a disproportionate number of Black, Latinx, and Pacific Islander communities impacted by COVID, meaning that these students were more likely to be dealing with illness or the death of a loved one during the pandemic. Approximately 40 percent of the U.S. population of 18-24-year-olds are college students, and there is an increasing number of “non-traditional” college students, typically meaning they are over the age of 25. Almost half of this group are students of color, and a third are first-generation college students (Lederer et al., 2021). The pandemic was a cause for poorer mental health for many people for a variety of reasons, and institutions should be aware of the specific effects it could have had on their students.

Challenges Faced by Campus Counseling Centers

Counseling Center Operations

The operations of campus counseling centers are highly variable. Factors like the size and type (public vs. private) of institution, the geographic location, the financial status and funding sources, student demographics, historical or religious foundations, and philosophical approaches by counseling center staff can all influence the mission and day-to-day operation of the center (Bishop, 2006). The majority of two- and four-year colleges offer some form of mental health services on campus (Kwai, 2016). These centers are staffed by a range of different professionals including clinical psychologists, licensed clinical social workers, mental health counselors, and

nurses or nurse practitioners who deal with mental health (Bishop, 2006). Just over half of four-year schools also offer psychiatric services; psychiatrists are medical doctors who can prescribe medication in addition to providing talk therapy or other forms of counseling (Kwai, 2016, LeViness, 2020). The International Accreditation of Counseling Services (IACS) (2016) offers some guidance on standards specifically for counselors working with college students. A counseling center should offer one-on-one therapy for students who are experiencing mental health crises, initiate educational and preventative campaigns to students and staff, engage in research, and endorse overall campus safety. The ultimate goal of counseling services on a campus is to promote mental wellness for all students (IACS, 2016).

Pre-COVID data. The Association for University and College Counseling Center Directors (AUCCCD) conducts an annual survey, administered in September with a reporting period of July-June for the prior academic year. For the July 2018-June 2019 interval, the survey was sent to 930 counseling center directors, of which 562 completed it for an overall response rate of about 60 percent (LeViness et al., 2020). The survey gathers information about the services offered by the centers, the student population they are seeing, and details about the counseling center staff including demographics, education level, and salaries. The clear majority of counseling center directors (87.3%) reported an increase in demand for counseling services. Compared to the data from July 2017-June 2018, centers saw approximately 12 percent more students in the 2018-2019 academic year. The average wait time for an appointment was 6.1 business days, with a maximum wait time at larger IHEs as high as 54 business days. Consistent with other survey studies, students most frequently presented with anxiety (60.7%), depression (48.6%) and stress (47%) (LeViness et al., 2020).

One study which examined CCMH data from 2010-2015 found that the rate of students seeking counseling center services was more than four times the rate of institutional enrollment, and the rate of counseling center appointments was more than six times the rate of institutional enrollment (Xiao et al., 2017). Clearly, counseling centers lack the resources to address all students who are seeking help, let alone those who are not, and operating budgets for most counseling centers have remained essentially unchanged over the last 10 years (Gibbons et al., 2019).

It is also important to recognize that many students who need services do not seek them out. One study which examined data from the HMS from 2007-2009 found that only one in three students with apparent mental health problems had received any treatment in the previous year, and only one in five was currently receiving treatment (Eisenberg et al., 2011). Stigma surrounding mental health is still a barrier for many students to seek help from their counseling center (Eisenberg et al., 2011; Gibson et al., 2019; Lipson et al., 2019). The HMS asks questions about stigma and other barriers to help seeking. In the Fall 2020 Data Report, 45 percent of students agreed with the statement “Most people would think less of someone who has received mental health treatment.” However, only 6 percent of students agreed with the statement “I would think less of someone who has received mental health treatment.” So, it seems that there may have been a reduction in the intrinsic stereotype against mental illness, but the extrinsic perception of stigma remains (Healthy Minds Network, 2020a). A study looking at HMS data from 2007-2017 confirmed this: the levels of personal stigma have decreased over the past decade, but perceived stigma remains much higher than personal stigma (Lipson et al., 2019).

Managing increased demand. It is critical to note the impact of the increased demand for services on the counseling center providers. Professionals are more likely to report an

increase in stress as they manage more students on their caseloads with limited resources (CCMH, 2020). Some strategies mentioned for managing the increase in demand for services come at the expense of the providers: cancelling non-essential meetings, skipping lunch breaks, and coming in early or leaving late to accommodate more appointments (LeViness et al., 2020). There is evidence of poorer outcomes from therapy when the counselor or psychologist spends more than 24 hours per week providing services (Travers & Benton, 2014).

The most common strategies used by counseling centers to manage the increase in demand were triaging by urgency (60.6%) referring off campus (51.3%) and reducing outreach efforts (41.3%). Approximately 31 percent reported they spaced out their appointments to every two weeks, and another 31 percent reported spacing appointments to three or more weeks (LeViness et al., 2020). Research shows poorer outcomes with reduced frequency of sessions or reducing the total number of sessions offered (Travers & Benton, 2014). Some counseling centers use a stepped care model, meaning that students are first served with the least resource-demanding approach, and “step up” to greater services depending on their need (Cornish et al., 2017). This is one way to manage demand for services, and 37.2 percent of counseling center directors reported using some version of this approach; it is more commonly used by counseling centers at large IHEs (LeViness et al., 2020). Only 16 percent reported they could fund additional permanent staff for their center. Of note, telehealth was not an option mentioned in the 2019 AUCCCD survey as a way to manage increasing demand for services (LeViness et al., 2020).

Implementation of Telehealth

Defining Telemental Health

Broadly, telehealth is the remote delivery of services by a provider for the purpose of expanding access to care (Becevic et al., 2015; Winkelmann et al., 2020). Historically, this has primarily taken place in rural areas where a patient can travel to a local clinic or other location and be seen by a provider located elsewhere via video conferencing (Simms et al., 2011), however “telehealth” can include phone visits, asynchronous messaging or email, or any other method of distance care delivered via technology (Winkelmann et al., 2020).

In the field of mental health, this delivery model is sometimes referred to as telemental health (TMH). The Higher Education Mental Health Alliance (HEMHA) published a guide to providing TMH health in 2019. TMH can include distance counseling via video, text, email, phone, or chat tools and can be delivered synchronously or asynchronously. There are several benefits to TMH, including increased access, convenience, cost savings, and the avoidance of stigma associated with help-seeking (HEMHA, 2019; Nobleza et al., 2019; Rochlen et al., 2004). People with certain mental health conditions may feel anxious traveling to receive care or being out in public, which is another reason to offer services from the comfort of one’s home (Backhaus et al., 2012). Some potential obstacles to implementation of TMH are cost of technology (software, equipment, IT support), resistance by staff, and concerns about the ability to establish a therapeutic alliance in a virtual setting (Nobleza et al., 2019).

There is a brief section in AUCCCD survey regarding telehealth: in 2019, just over half of the schools surveyed were not using any form of telehealth services. Of those that were, most offerings were asynchronous tools such as screenings and trackers, with only 3.4 percent offering video counseling sessions and 7.6 percent offering phone sessions (LeViness et al., 2020).

Private programs such as Talkspace, Better Help and TAO Connect offer video, phone, and messaging services to the general public, and some IHEs are referring students out to these types of services or incorporating them into their service model (D’Orio, 2019). One major advantage of these outside services is more potential diversity in providers; over 70 percent of counseling center staff are white, and many students are seeking a provider who represents them (LeViness et al., 2020; NCD, 2017). One service, TimelyMD, has grown their enrollment from 15 IHEs to 50 IHEs since the onset of the pandemic in March of 2020 (Anderson, 2020b). One advantage of this service cited by Johns Hopkins University is the ability for students to utilize counseling services outside of normal operational hours for the counseling center. They report many students who have utilized this service had not previously been seen by the counseling center, so it is possible that a remote platform is more attractive to certain students. Platforms vary as far as their communication level with counseling center staff; some will provide a summary report without any identifying information, while others allow for direct conversations to monitor individual students (Anderson, 2020a).

Efficacy of Telemental Health

Meta analyses. Many researchers have looked specifically at the efficacy of TMH interventions, though there is wide variability in methodology (Davies, Morriss & Glazebrook, 2014; Farrer et al., 2013; Spek et al., 2007; Travers & Benton, 2014). Farrer and colleagues (2013) sought to examine efficacy of web-based interventions for college students via meta-analysis of published trials. They asserted that use of the internet is a natural approach for this population, as many students already seek information and support online. Study criteria for meta-analysis included: randomized trials which included an outcome measurement related to anxiety and/or depression, studies in which the intervention or some portion of it was delivered

by or accessed using the internet, telephone, or video, and interventions which utilized a university setting or young people (18-25 years old). Twenty-seven studies met the inclusion criteria and were categorized based on the proportion of self-administered therapy to therapist-supported intervention. For example, interventions in which the therapist simply performed the initial assessment and outcome measures but the intervention itself was self-guided, versus those in which treatment was administered by the therapist but supplemented by a self-help tool via some form of technology. The authors acknowledge that there are some methodological challenges with technology-based interventions, namely the inherent self-report bias associated with outcome assessments in mental health. They also acknowledge that some interventions in their meta-analysis were developed specifically for university students, while others were standard interventions applied to a student population. Less than half of the interventions studied were found to have at least one positive outcome compared to controls, and 29 percent found no significant effect. Those with higher degrees of therapist involvement were more likely to show positive outcomes, and therefore they concluded that this type of intervention could be promising among the university population. They asserted that more research is needed to determine the cost-effectiveness of remote interventions, and that studies looking specifically at the efficacy of interventions for specific diagnoses are warranted (Farrer et al., 2013).

Davies and colleagues (2014) performed a similar meta-analysis of studies on remote interventions which specifically involved little to no “human support,” which means that the only human interaction was from a layperson and not from a therapist or other healthcare professional. Examples such minimal human support would include initial scheduling or email reminders to complete the intervention. The remaining criteria were otherwise similar to the previous study: randomized controlled trial, use of undergraduate student population, and

interventions delivered via technology. These interventions ($n = 17$) were completely standardized and asynchronous. Most of the individuals who engaged with these interventions for anxiety, depression, and stress had better outcomes than inactive controls, but these interventions did not show comparable efficacy compared with traditional interventions (Davies, Morriss & Glazebrook, 2014). In comparing this meta-analysis to Farrer and colleagues (2013), it would appear that the differentiating factor in efficacy was the support of a therapist or counselor, even if that support was offered remotely via phone, video, or email.

More recently, a meta-analysis was conducted to examine efficacy and outcomes of mobile application (“app”) based telehealth interventions (Lui et al., 2017). The authors echo many of the aforementioned benefits of TMH, specifically its convenience, portability, and immediacy of access. They examined 21 studies which looked specifically at outcome measures with use of mental health treatment delivered via a mobile app. They found positive outcomes, particularly for treatment of anxiety, mood disorders, and substance abuse. That said, the studies varied widely in sample size and demographics, and many did not include a comparison group. Some of the apps were designed to be used entirely in lieu of in-person treatment, while others were designed to accompany traditional methods. These researchers also excluded from their analysis studies which focused on the feasibility, acceptability, and cost-effectiveness of these interventions, though they acknowledge these are important considerations. Further research is needed to examine how the efficacy of individual apps is influenced by demographics and diagnoses (Liu et al., 2017).

Video conferencing. The opposite end of the telehealth spectrum from asynchronous methods would be videoconferencing, or “synchronous chat using video and audio” (Kozlowski & Holmes, 2014, p. 278). Video counseling sessions are essentially the same as in-person talk

therapy, but done over a secure video connection (Cole, 2020). Individual, couples, or group therapy can be done by video and, while it may not have some of the time-saving advantages of asynchronous forms of TMH, it has been shown to be as effective as in-person counseling across several populations (Backhaus et al., 2012; Hilty et al., 2013). It is particularly advantageous in situations where patients lack convenient access to a provider, whether the patient lives in a rural area or is quarantined during a pandemic.

A systematic review of articles was performed to identify strengths and gaps in the literature on videoconferencing (Backhaus et al., 2012). The authors sought to perform an updated review of literature with a specific focus on psychotherapy provided via videoconferencing to answer ten research questions related to the types of publications, populations studied, feasibility, and overall satisfaction by both patients and providers. Sixty-five articles met the inclusion criteria: published in English, focused on psychotherapy, focused on telemedicine, peer reviewed, and contained an abstract. The most common type of therapy used in these studies was cognitive behavioral therapy (CBT), used to address a wide range of clinical problems including trauma disorders, eating disorders, and substance abuse problems. Some of the studies examined the therapeutic relationship between provider and patient via videoconferencing and found mixed results; the researchers posit that this would differ based on the patient population. For example, studies of individuals with eating disorders showed a stronger therapeutic alliance with videoconferencing compared to in-person, while studies with older male veterans showed weaker therapeutic alliance with video than in-person. Others revealed no significant difference in the therapeutic alliance between modalities. This is an important factor to consider, as therapeutic alliance has been predictive of success of treatment outcomes. While this systematic review included many studies which utilized a wide range of

patient populations, the authors acknowledge that further research is needed to make firm conclusions about the efficacy of videoconferencing compared to in-person therapy, because it is variable depending on the patient population. Specifically, the authors assert that more research is needed on the efficacy of videoconferencing for treatment of generalized anxiety disorder, phobias, and personality disorders. Additionally, more research is needed to examine how race, ethnicity, and culture influence efficacy of videoconferencing. That said, there was general agreement across the studies that videoconferencing is a feasible method of delivering psychotherapy and will only improve as technology improves (Backhaus et al., 2012). Surely the technology being used a decade after this study's publication has come a long way.

Most of the literature seems to suggest that TMH can be effective, and outcomes are better with active involvement from a therapist as compared to asynchronous tools. Videoconferencing, specifically, appears to have good efficacy as the form of TMH which bears the closest resemblance to traditional in-person therapy. Some noted challenges of offering TMH include creating trust with a provider remotely, security and privacy of the session, and reliability and ease of use of the technology being used to offer services (Nobleza et al., 2019; Traube et al., 2020). The technology barrier is one that does not seem to be as applicable with younger populations, as they are accustomed to using the internet on a regular basis (Grist & Cavanagh, 2013).

Acceptability of Telemental Health by Students

In a survey study of community college students, approximately half of the participants agreed that online services would be more convenient so that they would not have to travel and would offer greater flexibility in appointment times (Dunbar et al., 2018). Those who had prior experience of receiving mental health services were more likely express a preference for in-

person services, whereas students who had no prior experience were more open to receiving services online. The researchers assert that an online model could be an effective first step to address concerns remotely and begin to close the gap of unmet needs (Dunbar et al., 2018).

This openness to receiving services online was echoed by Gibbons and colleagues (2019). Undergraduate students surveyed at a large university expressed an interest in learning more about balancing their academic and social lives, stress management, depression and anxiety, coping strategies, and how to support a friend who is experiencing mental health issues. The most preferred methods for receiving this learning material were via email and social media. It is encouraging that these students were interested in proactively seeking information about mental health, rather than considering the counseling center only when in a crisis (Gibbons et al., 2019). University students in Australia were similarly open to seeking help online, and the researchers assert that the internet would be an ideal place to promote “universal interventions” for the overall well-being of all students (Ryan et al., 2010). Travers and Benton (2014) found that while most students surveyed expressed a preference for in-person counseling, they confirmed video counseling would be acceptable and acknowledged the unique benefits of receiving services remotely.

One group of researchers advertised a depression screen (PHQ-9) via Facebook, Craigslist, and school email to undergraduate and graduate students across several IHEs in the state of Massachusetts (Williams et al., 2014). Of the 972 students who completed the screening, 30.4 percent were positive for depressive symptoms. This is comparable to prevalence estimates obtained via the NCHA and HMS (ACHA, 2021; Healthy Minds Network, 2020b). Of the students who screened positive for depression, 24 percent consented to scheduling a videoconferencing session with a psychiatrist via Skype. Of those, the clear majority (93.8%)

provided positive feedback on the experience (Williams et al., 2014). Qualitative interviewing of the students following their session supported synchronous videoconferencing as an acceptable and even preferred method to receive counseling services. The students reported that they liked the convenience of remote support, and that seeing the facial expressions and body language of the counselor via video were helpful (Williams et al., 2014).

One group of researchers performed a randomized controlled trial with a population of 150 German college students reporting high stress levels as measured by the Perceived Stress Scale (PSS-4) (Harrer et al., 2018). Half of the participants were randomly assigned to use a stress intervention app while the other half served as a waitlist control. The intervention included self-paced modules, access to a personal diary app to track their mood, and availability of an “eCoach” for additional support, reminders, and motivation. The researchers found significant improvements on measures of stress, anxiety, depression, productivity, and academic work impairment after seven weeks of using the intervention and again at three months post-intervention. Effect sizes (Cohen’s *d*) ranged from 0.56-0.75 with *p* values less than .001. Additionally, there was good adherence to the program by the students, most of whom had not sought alternative treatments for their mental health symptoms. This suggests that a technology-based intervention might be a more attractive option for some students who are reluctant to seek formal counseling services (Harrer et al., 2018).

A similar study piloted a mindfulness-focused app called DeStressify with 206 Canadian college students (Lee & Jung, 2018). The methodology was like the study described above, with a randomly assigned group of students using the app and a wait list control group. The students completed standardized measures of stress, anxiety, depression, sleep quality, quality of life, and work productivity. Those in the experimental group were instructed to use the app five days a

week for four weeks. The researchers found that use of the app resulted in a reduction in trait anxiety and improved the students' general sense of physical and emotional well-being and their self-reported productivity. They did not note a statistically significant improvement in diagnostic measures of anxiety or depression, but noted that they were unable to track or control the actual app usage by participants. They assert that this tool and others could be used in conjunction with other student support and counseling services to proactively assist with mental well-being of students (Lee & Jung, 2018). These authors also cite a systematic review of app-based mental health programs, in which the researchers draw a similar conclusion that apps can be used preventatively and in conjunction with more targeted therapies for a range of ages and diagnoses (Donker et al., 2013).

Another study looked specifically at the use of TMH services by students studying medicine and other health professions, hypothesizing that these students are likely to experience higher levels of stress than other students and are less likely to seek help for emotional symptoms (Nobleza et al., 2019). Surveys were administered to 67 students at one university who had utilized at least one TMH session (synchronous video appointment) over a period of 18 months. The authors note that a validated instrument for assessing satisfaction with telehealth could not be located, and therefore a survey was created to gain insight on the student experience across four domains: access, satisfaction, therapeutic alliance, and effectiveness. Over 90 percent of the students said they found telehealth to be convenient and timesaving, and that they would use it again. Over 80 percent of participants reported that it was as good, nearly as good, or no different from in-person visits, and that they were completely satisfied or very satisfied with the technology used. Perhaps most importantly, the majority of participants reported that the sessions felt natural (86.1%), that they could emotionally connect with the therapist and express

themselves during the session (66.7%), and that they felt a noticeable improvement following these visits (97.2%). One limitation of this study is that the students who engaged with TMH were selected by the treating clinician; selection bias to utilize students who were well-suited to this form of treatment could have contributed to the overwhelmingly positive response (Nobleza et al., 2019).

Acceptability of Telemental Health by Providers

While there is good evidence to support patient satisfaction with telehealth, far fewer studies have examined the acceptability of telehealth methods by the providers. One study used survey methodology to examine the satisfaction by patients, providers, and coordinators of the telehealth program in the Missouri Telehealth Network (MTN) (Becevic et al., 2015). They found generally high satisfaction by all three groups, though the number of provider respondents was relatively small ($N = 21$) and the majority were behavioral health providers from a large medical center. Importantly, these researchers asked the providers not only if they could deliver services effectively via telehealth, but if they were satisfied by their work; the majority offered affirmative responses to both (Becevic et al., 2015).

Another study looked specifically at the experience of mental health providers from one Veterans Affairs (VA) healthcare system offering clinical video telehealth (CVT) (Perry et al., 2020). Approximately half of the utilizers of this technology reported a preference for in-person over CVT, but the majority supported some significant benefits to CVT such as increased access to care and flexibility in scheduling. The biggest barriers reported were lack of training and concerns about administrative burden (Perry et al., 2020).

Lack of training in these techniques has been cited as a barrier to offering telehealth services across several fields (Maurya et al., 2020; Perry et al., 2020; Simms et al., 2011). In one

recent study, researchers performed qualitative interviews with fifteen social work students regarding their experiences with being trained in TMH and offering services to patients (Traube et al., 2020). The students generally reported that they felt confident in the services offered remotely, and that they were adequately trained to do so (Traube et al., 2020). Training should include ethical and legal safeguards for use of technology, as well as best practices for developing therapeutic relationships remotely (Maurya et al., 2020).

Maurya and colleagues (2020) surveyed 193 counselors across the United States in a variety of work settings regarding the prevalence of TMH as well as their experience with using it. Items were created with a five-point Likert scale ranging from “strongly disagree” to “strongly agree” and “never” to “very often.” The participants were asked to respond to statements in the domains of prevalence of and comfort in offering TMH, perceived challenges, perceived advantages, and outlook. For example, “I feel comfortable in offering distance counseling if needed” and “It is very challenging to establish an effective therapeutic relationship in distance counseling.” At the time of survey distribution in 2019, over 80 percent of respondents reported that they had never or rarely provided TMH services, with only 5 percent offering it frequently. Most of the participants worked in private practice, with others at agencies, schools, or institutions. They cited accessibility, convenience, and minimization of stigma as the biggest advantages of TMH, and developing a safe and trustworthy relationship as the biggest challenge. Interestingly, while some literature has suggested that younger professionals would be more comfortable with technology and therefore more open to implementing remote services, the findings in this study showed that the providers with the most experience (more than 15 years) were the most comfortable with TMH services. The researchers theorize that this could be due to experienced counselors feeling more confident in their ability to establish therapeutic

relationships with their clients even from a distance (Maurya et al., 2020). While these results show generally favorable feelings toward TMH, the sample size was relatively small and the number of clinicians who were offering these services at the time was even smaller. An additional notable limitation of this study is the lack of distinction between different types of TMH services; it was a broad category of “distance counseling” which could include the full spectrum of asynchronous messaging to face-to-face videoconferencing.

Most of the literature reflects a positive, prospective attitude toward TMH by providers: they would be willing to try TMH, they see the potential benefits to their patients, and they feel comfortable with the technology once they have been trained (De Weger et al., 2013; Maurya et al., 2020; Simms et al., 2011). These studies were published in a time when much of the healthcare field talked about the benefits of telemedicine, particularly for rural communities, without actually taking steps to implement it (CDC, 2020; De Weger et al., 2013; Galvin, 2020; Perry et al., 2020; Simms et al., 2011). With the outbreak of COVID-19 in the winter of 2020, there was a rapid shift to telemedicine practice across all disciplines out of necessity (Galvin, 2020; Maurya et al., 2020).

Legislation Changes Regarding Use of Telehealth

One major obstacle of offering telehealth has historically been a lack of insurance reimbursement; many insurers would only cover services offered in-person (Cole, 2020). There are also legal restrictions around serving patients outside of the state where the provider resides unless the provider is licensed in multiple states (Maurya et al., 2020; Traube et al., 2020). The Centers for Medicare and Medicaid Services (CMS), the largest single payer for health care in the United States, issued several waivers effective March 1, 2020 which expanded coverage for telehealth services (CMS, 2020a). Restrictions on the location of services were lifted, allowing

providers to bill when the patient was in his or her home, and payment for these services was raised to the level of in-person reimbursement (CDC, 2020). That said, these waivers were only in effect as long as the country was in a state of emergency, with plans to return to the previous restrictions following the pandemic (CDC, 2020). It is common for commercial insurance providers to follow the lead of CMS in matters of policy, so any counseling centers who accept insurance would have potentially been impacted by these changes.

Many counseling centers do not accept insurance but faced licensure laws as a major obstacle to offering services remotely. AUCCCD published a statement on March 14, 2020 urging state and federal legislators, governors, and state licensing boards to permit mental health professionals to practice across state lines for six months, and to provide funding for TMH training and HIPAA-compliant platforms for IHEs (Mitchell, 2020). The Psychology Interjurisdictional Compact (PSYPACT) is a multi-state organization which allowed providers to offer services to patients in other states who were also part of the paid PSYPACT membership (APA, 2021b). This organization engaged in advocacy efforts on a state-by-state basis to expand access to TMH if the professional met the state licensure requirements for another state (Mitchell, 2020). Each state has specific rules governing permission to serve patients across state lines; the Federation of State Medical Boards (FSMB) has published updated guidelines by state regarding granting of emergency licenses and the ability to continue seeing an out-of-state provider with whom care has already been established (2020). The University of Texas at Austin Counseling and Mental Health Center and Penn State University's Counseling and Psychological Resources collaborated on a living document which informs counseling center providers about the status of these rules in all fifty states and the District of Columbia (Brownson et al., 2021). The spreadsheet is broken down by state and by provider type and is continually updated as

states change their rules. Now that the country is technically no longer in a state of emergency, many states are reverting to pre-COVID policies surrounding out-of-state licensure, which makes it increasingly difficult to continue these services. Decisions surrounding how best to offer remote services considering current healthcare policy likely vary widely across IHEs.

A mental health crisis among students was well-established, even prior to the global pandemic. Counseling centers were already overwhelmed with the number of students seeking help, and they are now faced with potentially more students who need to be seen, and in a new way. Research questions include: How was students' mental health being addressed by IHEs during COVID-19? What were some of the barriers and challenges to offering TMH services? Do providers intend to continue use of TMH services, even when students are on campus and safety is not a concern? Are there certain institutional factors that are correlated with intention to continue remote services?

Methods

Theoretical Framework: Change Theory

Looking at the problem of a mental health epidemic among undergraduate students through the lens of change theory points to a gathering of information on what campus counseling centers are doing currently to serve these students. Change theory was initially described by Kurt Lewin in 1947 and involves a three-stage model: unfreezing, changing, and refreezing. Simply put, an individual or organization must break down or dissolve existing processes or habits, enact new standards, then thoughtfully make these new processes a permanent part of daily practice (Lewin, 1947). Change can be reactive, in response to internal or external forces placing pressure on the individual or organization. It can also be proactive, when the individual or organization recognizes that change would be desirable and begins to map out steps to do so. Change theory is broad and can be applied across all disciplines (Hussain et al., 2016). In essence, change theory is the formal way of describing what is colloquially referred to as a “new normal.”

Kezar and colleagues (2018) outline some sub-theories of change theory specifically applied to higher education settings. Institutional theory relates precisely to reactive change: external forces or fields are in many cases outside of a college campus but can shape actions. Network theory describes the creation of relationships by connecting systems and distributing knowledge to facilitate group learning. Finally, organizational learning theory rewards the sharing of knowledge that leads to change and betterment of the whole system (Kezar et al., 2018). These three sub-theories are directly applicable to considering how campus counseling centers are managing the way they are addressing mental health needs of students in the current global pandemic. It is interesting to consider the staggering mental health concerns among

undergraduate students as well as the under-resourced nature of counseling centers as possible catalysts for change. Depending on the institution, either could be seen as a proactive or reactive reason for change, but it seems that implementation of telehealth services was not introduced into the model for most centers until COVID-19 necessitated it. A global pandemic is a clear example of an external force acting upon an IHE and compelling reactive change. The same is true of telehealth in general across many fields: it was a theoretical way to serve more patients, but often the steps to implement the technology were not taken. This could be attributed to lack of resources or technology to initiate these services, a perception of low demand for these services, or simply the inconvenience of changing behavior (Becevic et al., 2015). The entire medical field was required to rapidly shift to this model during COVID, and surely some were more prepared than others if they had developed the infrastructure for telehealth, even just for one discipline.

Both network theory and organizational learning theory stress the importance of collecting knowledge and disseminating it for the greater good. The authors state:

Change often involves risk-taking that can be less problematic if it is done collectively rather than individually... without people challenging existing assumptions, reviewing new information, and undergoing an inquiry process that leads to a consideration of new ways to conduct work, change can be difficult. (Kezar et al., 2018, p. 2-3)

There is wide variability regarding whether counseling centers were using some form of TMH prior to COVID-19, what forms (if any) were implemented when students were sent home during the spring semester, and what is being done now whether students have returned to campus or not. Many IHEs likely had to rapidly “unfreeze” to offer some remote services to students. Most centers are probably still in the second phase of “change process”: testing new practices and policies based on whether students are on campus, assessing the comfort level of students and counselors, and determining the preferred methods by both parties for treatment. Even though

students have returned to campus at most IHEs and much of in-person instruction has resumed, remote counseling center services are still being offered to maintain social distancing and manage capacity limits. Additionally, videoconferencing services allow the patient and provider to see one another's facial expressions rather than wearing masks in person.

By gaining an understanding of where IHEs are in this change process, guidance on the “refreezing” stage can be offered. The sharing of knowledge is a critical component of the change process, to ensure that when “refreezing” does occur it is informed by best practices (Hussain et al., 2016; Kezar et al., 2018). Change theory has been applied to global mental health in the context of determining efficacy of interventions (Bemme, 2019). The author discusses how this theoretical framework is effective in thinking about evidence-based practice. It can serve as a road map for planning an outcome which should be “plausible, do-able and testable” (p. 578) and should involve ongoing reflection. The author stresses that change is often uncomfortable: it is not something that is always readily embraced and can result in disagreement and mistakes. A theory of change “map” can be helpful to visualize the steps, seen and unforeseen challenges, and goals to reach a desired outcome (Bemme, 2019). It is known that offering mental health via telemedicine is plausible: it was being done via a variety of platforms prior to COVID-19. It is do-able: most providers can be trained in the use of technology, and patients can also learn how to access care via technology. And finally, it is testable: the results of studies discussed earlier show its efficacy, particularly with interventions directly supported by a therapist. Because there is such wide variability in what constitutes TMH, though, it is helpful to learn what specific methods are being used. Future research could then look deeper into the comparative efficacy of these methods to in-person therapy.

Use of Survey Methodology to Support Change Theory

This survey is likely a preliminary effort to determine what counseling centers are doing in this period of transition and uncertainty, but a logical first step to gather information about current practices. Kezar and colleagues (2018) describe the concept of isomorphism as it relates to institutional change theory: new values or new norms that are shown to have legitimacy and influence at one or more IHEs are often adopted by others, and in this way, change is promoted across several levels.

Telemedicine has become a new standard across many fields as a result of COVID-19, and there is a call by physicians and patients everywhere to let it continue (Robeznieks, 2020). It is highly likely that even when the country returns to a post-COVID “new normal,” the use of telemedicine will continue for certain types of appointments, and there is no reason this cannot apply to mental health services offered by counseling centers. Will they simply “refreeze” using their pre-COVID protocols, or has this been a catalyst for permanent change? By gaining a clear picture of the current practices across a range of IHEs via a survey tool, there is potential to collectively determine the best course of action to serve students during the pandemic and beyond. This will ensure that when IHEs “refreeze,” they are doing so with a great deal of knowledge and experience which will contribute to their confidence in the efficacy of new policies.

Survey Design

A simple descriptive survey was created to target campus counseling center professionals (Mertens, 1998). As evidenced in the review of literature, survey research is quite common in the mental health field and is an effective way to get a broad picture of the state of many different counseling centers at a variety of IHEs. A list-based sampling frame was utilized to recruit

participants for this study; it was distributed to current members of the Association for University and College Counseling Center Directors (AUCCCD) via the association's LISTSERV (Fricker, 2008). The AUCCCD's annual Directors Survey is an example of descriptive data which is collected from and disseminated to this group to promote awareness of what other centers are doing (LeViness et al., 2020).

In order to become a member of AUCCCD, an individual must be affiliated with an IHE with a counseling center that provides "confidential mental health counseling and developmental counseling to college students per state mental health laws and professional ethical guidelines" (AUCCCD, n.d.). Only one director per institution can serve as a representative member in the organization, so data from one IHE was not duplicated by responses from more than one individual. The current membership includes directors from two and four-year public and private IHEs in the United States and its territories, Canada, Europe, the Middle East, Asia, and Australia (AUCCCD, n.d.). The Director Survey report from the 2020-2021 academic year reflected 833 active members (Gorman et al., 2022).

An email with a brief study description, instructions for completion, and a link to the survey itself was sent via the LISTSERV (see Appendix A). The survey was reviewed by counseling center directors at four IHEs at different phases of the development process for clarity and to confirm that their questions or interests surrounding this issue were addressed by the survey prior to its dissemination. These individuals were a convenience sample, representing both public and private institutions with a range of institutional enrollment. Three were located at East coast institutions and one at a West coast institution. They were asked to pilot the survey in Qualtrics Survey Software using false data to preserve the anonymity of their institution, and so that they could voluntarily participate in the study when the finalized survey was distributed. The

survey was a mix of multiple choice, fill-in, ranking, and Likert-scale questions. A 7-point scale was chosen for the Likert-scale questions based on evidence of test-retest reliability, validity, and respondent preference for scales with 7, 8, 9, or 10 values (Preston & Colman, 2000).

The survey began with a modified statement of informed consent (see Appendix B) in which participants acknowledged that their participation was voluntary and that they could refuse to answer specific questions or stop participating at any time. The survey in its entirety is included in Appendix C. Neither the name of the professional completing the survey nor the name of their institution was collected, and the survey tool did not collect IP address information from recipients.

The first section of the survey collected demographic information: size of the school, geographic location (U.S. state or, if international, their country), and number of full-time equivalent (FTE) counselors and graduate trainee clinicians. Participants were also asked the percentage of enrolled students served by the counseling center on an annual basis, and how instruction was offered at their institution (in-person vs. virtual) for the Fall 2020 and Spring 2021 semesters.

After this initial section, questions were focused on the use of TMH. A brief definition of TMH informed by the HEMHA position statement was offered. The design of the survey was intended to recruit those who utilize TMH services as well as those who do not. If a participant responded that they were not offering TMH at their center, skip logic would direct them to a question regarding barriers, if any, to providing these services, and the survey would be complete.

Those who offered TMH were asked how they offered services (i.e. phone, email, video), when they began offering TMH services, and what percentage of services are provided via

telehealth versus in-person versus a combination. If an outside service was used (such as Talkspace), the participants were asked which service and the associated cost of this service. They were then asked whether they attempted to offer services to students residing out of state, if any professionals applied for licensure in other states, and what services were able to be offered across state lines. They were asked to rank possible challenges or barriers to offering telehealth services, such as technology or licensure obstacles. Additionally, they were asked about their comfort with offering telehealth and their perception of its efficacy using a 7-point Likert scale with 1 being “Very uncomfortable” or “Very ineffective,” respectively, and 7 being “Very comfortable” and “As effective as in-person services”, respectively. Finally, participants were asked, when students return to campus, the likelihood of continuing to offer TMH services through the counseling center. This question was also presented as a 7-point Likert scale, with 1 being “Not at all likely” to 7 being “Very likely.”

Most of the questions were quantitative in nature, seeking numeric or multiple-choice responses so that these variables could be coded as categorical or continuous for purposes of analysis. Four qualitative questions were included in the survey to add more depth to the responses and to help inform future research on this topic. These qualitative questions included:

- “In what way(s), if any, has your telehealth offering changed since the COVID-19 pandemic? (i.e. percentage of students utilizing telehealth, types/modes of telehealth offered, percentage of staff trained, staff comfort level/perception of its efficacy)”
- “Is there anything you would like to share regarding the provision of remote services to students residing out of state?”

- “Is there anything significant you learned or want us know about telehealth services that you experienced during the pandemic?”
- “If you are likely to continue use of telehealth in some form, what would that look like for your center? (i.e. certain methods of telehealth, use of telehealth for some diagnoses or types of therapy, percentage of staff trained in telehealth offerings, use of an outside service)”

The survey was distributed to the AUCCCD LISTSERV on May 17, 2021 and remained open for 45 days. One follow-up email was sent two weeks prior to the deadline to minimize non-response error (see Appendix D) (Ponto, 2015). The characteristics of respondents and non-respondents should be similar, though professionals who were offering TMH services may have been more inclined to participate in the study than those who are not.

Statistical Analysis

The password-protected data from Qualtrics was exported to a Microsoft Excel file and stored in a password-protected Box file on the university server. Statistical analysis was performed using Microsoft Excel and SPSS software. Descriptive statistics were calculated for all questions and results will be displayed in tables and figures, as appropriate. Additional analyses were performed to assess differences between groups and relationships between variables. This study was reviewed and approved by the Institutional Review Board (IRB) of Pacific University.

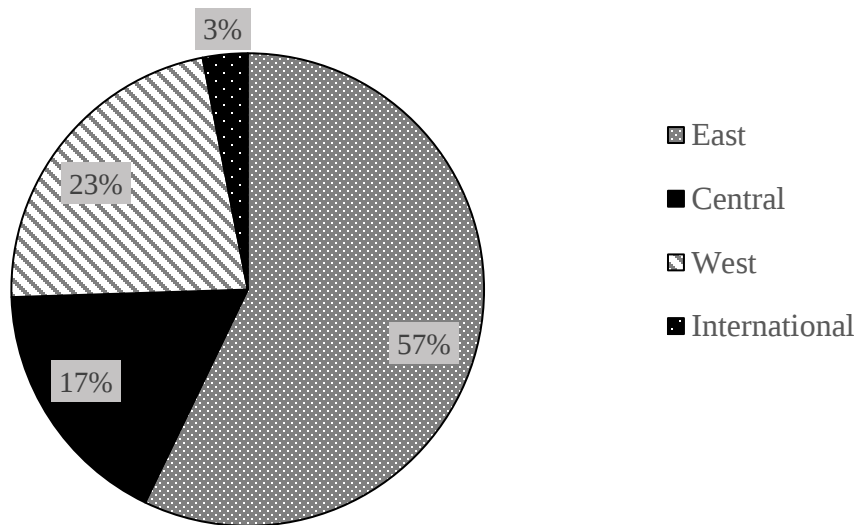
Results

The Results section will first provide an overview of the respondents, and then offer analyses related to the specific research questions outlined above. SPSS Statistics Version 28.0.0.0 was used to conduct statistical analysis. It should be noted that, while the generally accepted p value of .05 was used for reporting, a further discussion of the relationships between variables, statistically significant or not, will be included in the Discussion chapter.

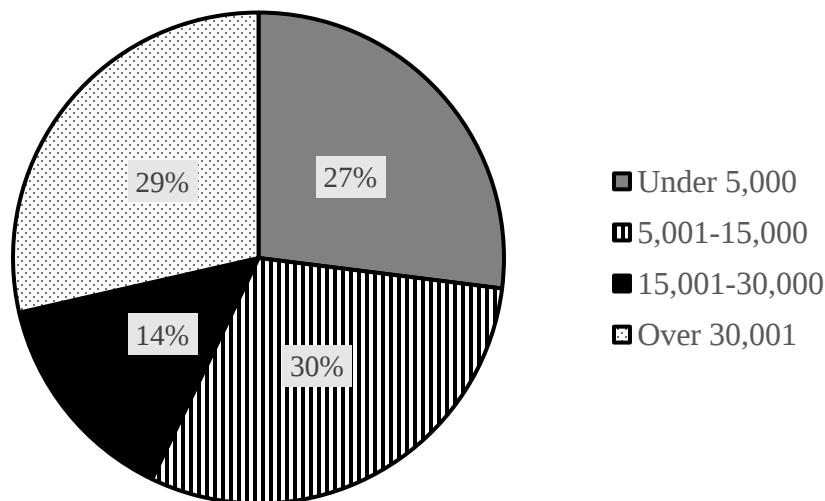
Participant Demographics

Geography

A total of 65 responses were received out of a presumed 833 invitations, if all active members are opted into the LISTSERV. Of those, two responses were blank and therefore removed from further analysis. Participants in the United States provided their state, and they were categorized into East, Central and West regions. The regions were created based on time zones, with Mountain and Pacific time encompassing the West region. These regions were selected in order to have an adequate number of participants in each category for analyses such as Chi-square. There were two international respondents, one from Ireland and another from Canada. The regions of the respondents are displayed in Figure 1.

Figure 1*Geographic Region of Participating Institutions****Enrollment and Staffing***

Due to the number of participants, enrollment was re-categorized from the 11 categories in the original survey to four categories, as displayed in Figure 2. Like geographic region, this re-coding was performed to account for the number of participants in each category.

Figure 2*Enrollment of Participating Institutions*

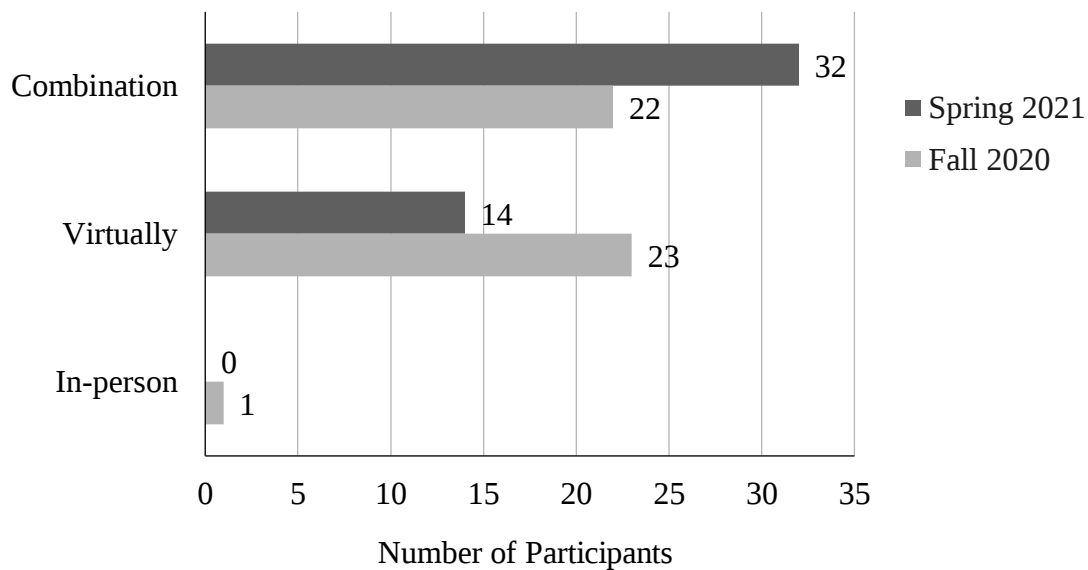
The number of full-time equivalent (FTE) clinicians ranged from 1 to 32 ($M = 11.31$, $Mdn = 8$). The number of FTE graduate trainee clinicians ranged from 0 to 12 ($M = 3.08$, $Mdn = 2.5$).

Kolmogorov-Smirnov tests indicated that the institution demographics of participants did not follow a normal distribution. The statistic was found to be significant for enrollment [$D(63) = 0.138$, $p = .005$], geographic location [$D(60) = 0.136$, $p = .008$], and number of FTE clinicians [$D(59) = 0.174$, $p < .001$] indicating violation of the assumption of normality. Therefore, non-parametric tests were used for analysis of variables.

Spearman rank order correlations were significant between institutional enrollment and number of FTE [$r_s(57) = .876$, $p < .001$] and graduate trainee FTE [$r_s(57) = .606$, $p < .001$]. There was also a significant positive correlation between number of FTE counselors on staff and number of FTE graduate trainee clinicians [$r_s(57) = .653$, $p < .001$]. As expected, institutions with higher enrollment had a higher number of both FTE and graduate trainee FTE.

Method of Instruction

When asked how instruction was offered at their respective institutions in the Fall 2020 and Spring 2021 semesters, 47 responses were received. Only one institution offered fully in-person instruction in the Fall of 2020, with 49 percent offering fully virtual and 47 percent offering a combination of in-person and virtual. In the Spring 2021 semester, some of the institutions who had been fully virtual had transitioned to a combination of virtual and in-person instruction, resulting in 69 percent with combination instruction and 31 percent virtual. None reported fully in-person instruction for the Spring of 2021. These results are displayed in Figure 3.

Figure 3***Method of Instruction***

Counseling Center Utilization

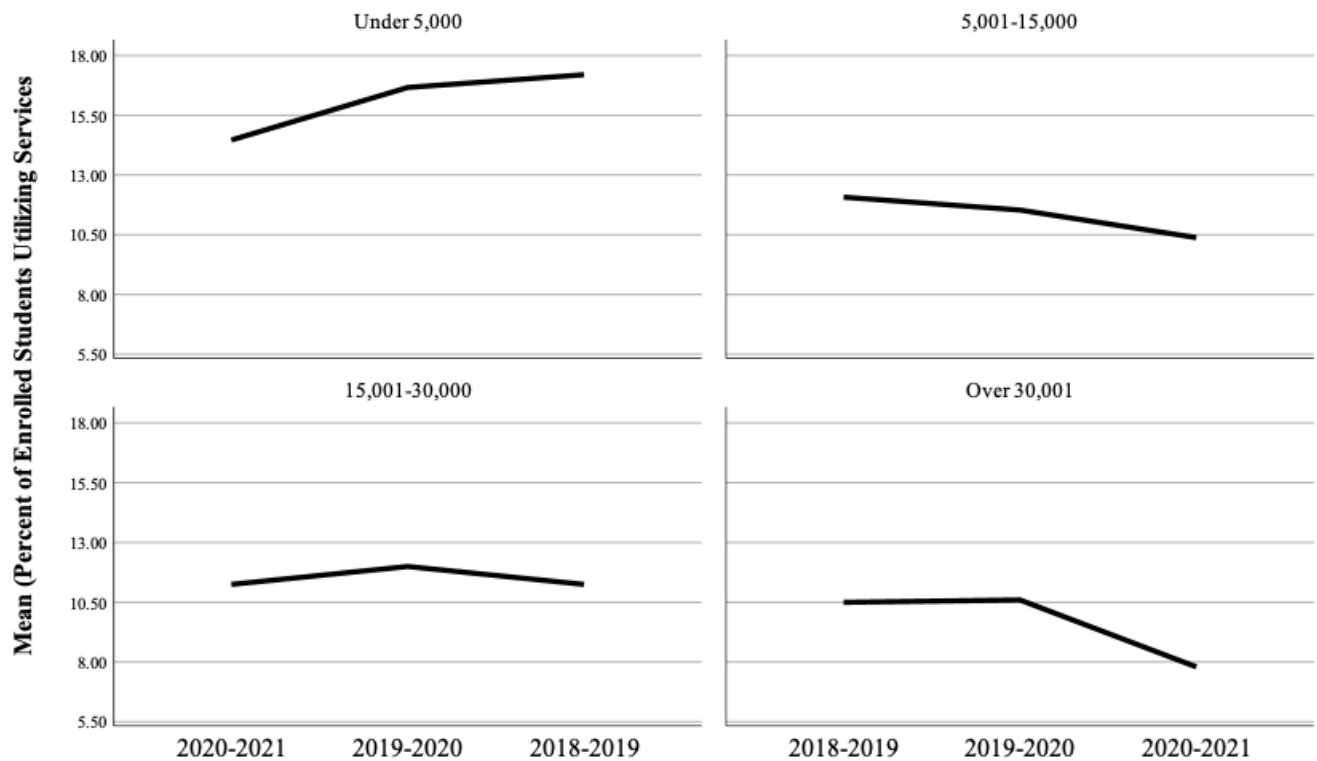
Respondents were asked for the percent of students utilizing any type of counseling center services over the last three academic years (2020-2021, 2019-2020, 2018-2019). A related-samples Friedman's two-way analysis of variance by ranks summary was conducted to examine reported counseling center usage over time. The means, medians, minimum and maximum, and standard deviations are presented in Table 1. The reported overall usage decreased by 2.6 percent over time [$\chi^2(2, N = 44) = 9.389, p = .009$], with the greatest difference between 2018-2019 and 2020-2021 [$\chi^2(2, N = 44) = -.523, p = .043$ with Bonferroni correction]. The difference in usage found between 2018-2019 and 2019-2020 usage (0.51%) in our sample approached statistical significance [$\chi^2(2, N = 44) = -.500, p = .057$ with Bonferroni correction].

Table 1

Counseling Center Usage Over Time (Percent of Enrolled Students)

	Minimum	Maximum	Mean	Median	Std. Deviation
2020-2021	0	34	10.89	10	6.19
2019-2020	3	30	12.98	10	6.61
2018-2019	3	30	13.49	12	6.55

Significant negative Spearman rank order correlations were found between the percentage of students utilizing counseling services and overall enrollment for all three years assessed. This is displayed in Figure 4.

Figure 4*Counseling Center Utilization by Institutional Enrollment*

There was also a significant negative Spearman rank order correlation between the number of FTE counselors on staff and counseling center usage. That is, smaller schools and those with fewer FTE had a higher percentage of students utilizing services. This is displayed in Table 2.

Table 2*Enrollment, FTE and Counseling Center Utilization*

Year	N	Enrollment	FTE
2020-2021	47	$r_s = -.455, p < .001$	$r_s = -.312, p = .019$
2019-2020	46	$r_s = -.428, p = .002$	$r_s = -.327, p = .013$
2018-2019	44	$r_s = -.399, p = .003$	$r_s = -.417, p = .002$

Analysis of Incomplete Responses

Seventeen participants completed only the demographic information and did not answer any questions related to their counseling center or TMH practices. Statistical analyses were performed to assess the differences between respondents who completed the entire survey and those who completed only the demographic information. A Chi-square analysis was performed, and no significant differences were found between the institutional enrollment of those who completed the entire survey and those who did not [$\chi^2 (10, N = 63) = 14.765, p = .141$]. Mann-Whitney U tests revealed no significant difference in the mean number of FTE counselors reported by those who completed the survey in its entirety and those who did not [$U (57) = -1.685, p = .092$].

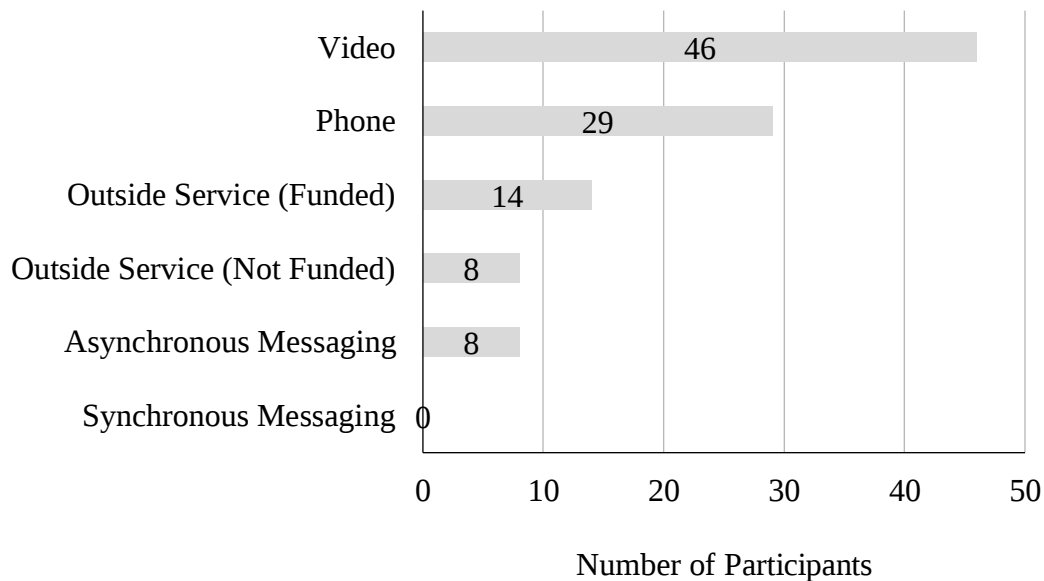
A Chi-square analysis revealed significant differences in geographic location between those who completed the survey and those who did not, with the majority of those who did not complete it residing in the central United States, and those who completed it residing in the eastern United States [$X^2 (2, N = 62) = 12.776, p = .002$]. A linear regression was performed to determine whether region, enrollment, or number of FTE were predictors of a participant's completion of the survey, and no significant predictors were identified [$R^2 (3, N = 58) = 1.39, p =$

.256]. SPSS software excludes cases with missing data, therefore analysis regarding TMH practices was restricted to the participants who completed the survey in its entirety.

Telehealth Offerings

Form of Telehealth

The first research question asked how students' mental health was addressed by IHEs during the COVID-19 pandemic. All participants reported offering some form of TMH. Nine participants (19.6%) reported that they had been offering some form of telehealth prior to the Spring 2020 semester. Of those, the earliest offering began in Fall of 2015 with others following in subsequent semesters leading up to Spring of 2020. All participants reported offering at least one form of telehealth, and 69.6 percent ($N = 32$) reported offering more than one form (i.e., phone and video visits). Figure 5 displays the type of telehealth offerings; the most common being video visits by almost all respondents ($N = 46$), followed by phone visits ($N = 29$) and use of an outside service funded by the institution ($N = 14$).

Figure 5*Types of Telehealth Services Offered*

The annual cost of an outside service was reported by 13 participants and ranged from \$5,000 to \$400,000 with a mean of \$71,076.92 and a median of \$28,000. Three participants noted that certain services were included as part of student insurance. There was no statistically significant relationship between cost of outside service and institutional enrollment [$r_s(43) = .246, p = .417$]. None of the respondents reported using a synchronous messaging tool.

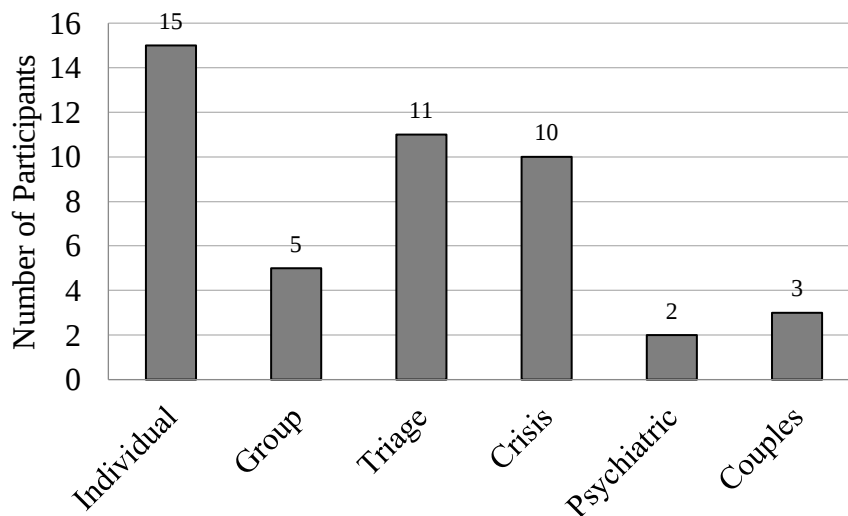
Participants were asked to offer a breakdown of how students were receiving counseling center services (telehealth, in-person, and combination) during the 2020-2021 academic year. It should be noted that this question was displayed as a sliding scale and not all participants' responses added to 100 percent. That said, 37 percent of participants ($N = 17$) indicated that 100 percent of services were offered via telehealth, with an additional 45.5 percent ($N = 21$) indicating that over 90 percent of services were provided via telehealth.

Out of State Services

Exactly half of the participants ($N = 23$) reported offering some counseling center services to students out-of-state. Most commonly these services were offered by a psychologist (19.6%) or licensed professional counselor (19.6%), followed by licensed clinical social worker (8.7%), licensed marriage and family therapist (2.2%) and physician (2%). Respondents were able to select which services were offered across state lines and were able to select multiple responses. The most common service types offered across state lines were individual counseling (32.6%), triage appointments (23.9%), and crisis appointments (21.7%). Group counseling (10.9%), couples counseling (6.5%), and psychiatric services (4.3%) were reported less often by respondents. These are displayed in Figure 6 in response counts.

Figure 6

Services Offered Across State Lines



Mann-Whitney U tests were run to determine whether there were significant differences in institutions who provided out-of-state services and those who did not. There was no statistically significant effect for enrollment [$U(43) = 245, p = .850$] or geographic location

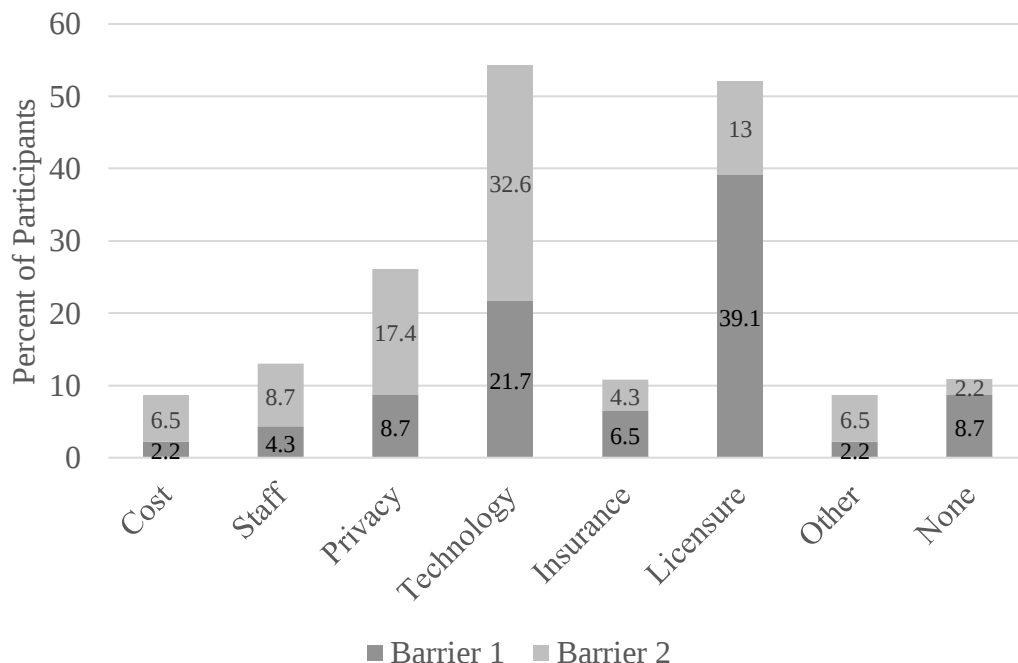
[$U(43) = 175, p = .051$]. Because the latter was approaching significance, additional Chi-square analyses were run and the Pearson Chi-Square was not found to be statistically significant for region [$\chi^2 (2, N = 45) = 4.591, p = .101$].

Barriers and Challenges

One sub-question was related to the barriers and challenges were to offering telehealth. Survey participants were asked to rank the barriers or challenges to offering telehealth services at their institutions. They were provided with the following list of possible barriers: cost, lack of staff to support, privacy concerns, technology, insurance barriers, licensure barriers, “other,” and “none.” The barriers participants indicated as the greatest by selecting them as “1” or “2” are displayed in Figure 7.

Figure 7

Greatest Barriers to Implementing TMH



The greatest barriers were licensure restrictions preventing clinicians from serving students located in a state other than the institution, and technology. Licensure was selected by 39.1 percent ($N = 18$) of participants as their first response and 13 percent ($N = 6$) choosing it as their second response. Technology was selected as the greatest challenge by 21.7 percent ($N = 10$) of respondents and the second greatest challenge by 32.6 percent ($N = 15$) of respondents. Privacy concerns were prevalent as well, with 8.7 percent ($N = 4$) and 17.4 percent ($N = 8$) choosing it as their first and second response, respectively.

Some participants indicated they had an easier time implementing TMH services by selecting “none” as their first or second barrier or challenge. These participants ($N = 5$) were compared to those who indicated they did have challenges with other items such as technology or licensure. Mann-Whitney U tests were run and there were no differences found between these groups on comfort [$U(43) = 82.5, p = .823$], efficacy [$U(43) = 65, p = .308$], or likelihood to continue using TMH services [$U(43) = 60, p = .152$]. It should be noted that the group of clinicians who indicated minimal challenges was only five, which could have prevented a statistically significant relationship from appearing in the data. That said, none of the five participants in this group reported providing out-of-state services to students, which was found to be statistically significant [$\chi^2 (1, N = 40) = 5.17, p = .023$].

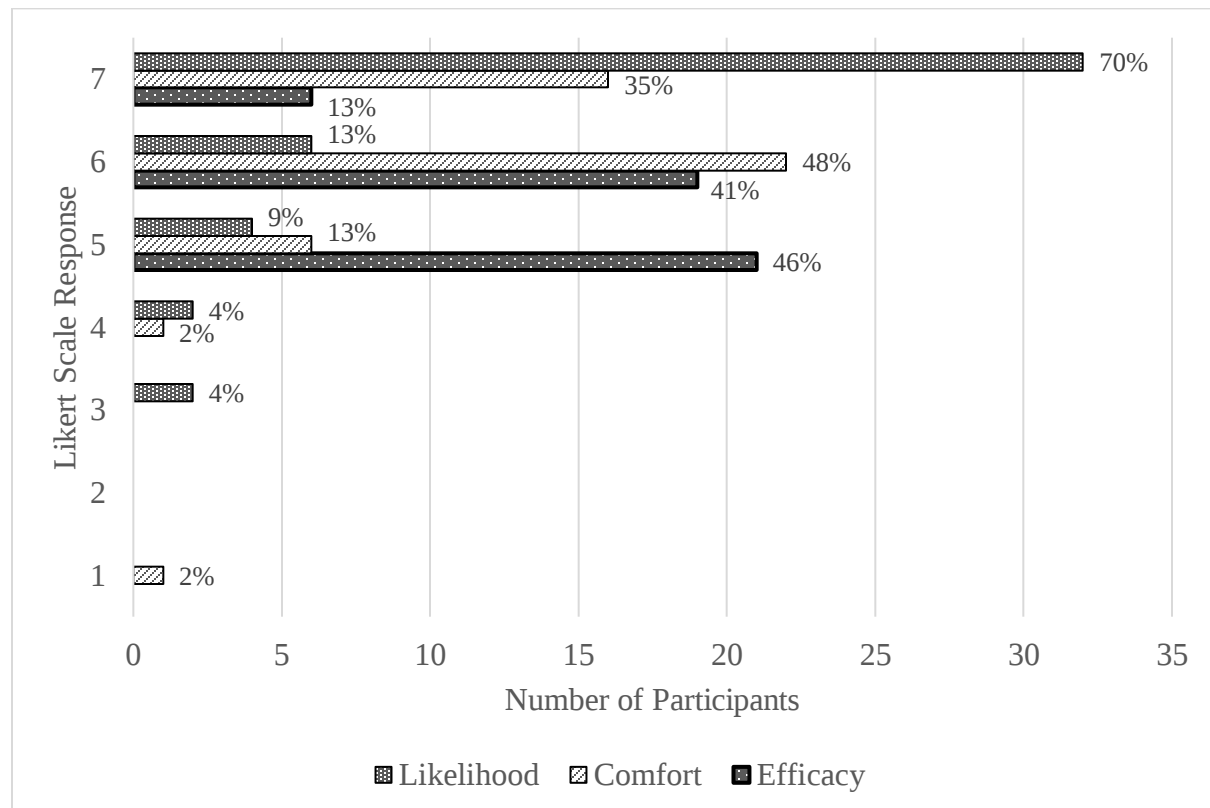
Perceptions of Telehealth

The final sub-question sought to examine whether certain institutional factors correlated with intention to continue remote services. Intention to continue remote services was indicated by the three 7-point Likert-scale questions asking about the participants’ comfort with telehealth and their perception of its efficacy compared to in-person services, and the likelihood of

continuing services when in-person classes resumed fully. These responses are displayed in Figure 8.

Figure 8

Impressions of Telehealth



When asked about their comfort level providing TMH services compared to in-person, 82.6 percent of participants ($N = 38$) selected a 6 or a 7, indicating they are very comfortable with providing these services. When asked about the efficacy of telehealth, all participants chose at least a 5, indicating that TMH is as effective or nearly as effective as in-person services. An additional sub-question was related to the likelihood of continuing TMH in some form, even when students are primarily on campus and in-person instruction resumed. These responses were

equally positive, with 82.6 percent of participants choosing a 6 or a 7, and only 8.6 percent ($N = 4$) selecting below a 5.

There was a small, but statistically significant (1-tailed) Spearman's rank order correlation found between perception of efficacy with the intention to continue using telehealth [$r_s(44) = .264, p = .038$]. Additionally, a positive correlation was found between comfort level and perception of efficacy [$r_s(44) = .426, p = .003$]. That is, participants who reported that they were comfortable with telehealth were more likely to also report it was as effective or nearly as effective as in-person services and were also more likely to report they intend continue its use. Kendall's Tau correlations were found to be statistically significant between perception of efficacy and comfort level [$r_K(44) = .384, p = .004$] and approached statistical significance for perception of efficacy and likelihood to continue services [$r_K(44) = .247, p = .069$].

Further Analyses

Perceptions and Institutional Characteristics

Independent-samples Kruskal-Wallis tests were performed to examine the participants' perceptions of telehealth with the characteristics of their institution. There were no statistically significant differences found related to institutional enrollment on comfort level with telehealth [$H(43) = 2.873, p = .412$], perception of its efficacy [$H(43) = 3.895, p = .273$], or likelihood to continue services [$H(43) = 1.132, p = .769$]. Likewise, Kruskal-Wallis tests revealed no statistically significant difference found for geographic region on the three measures of participant perception: comfort [$H(43) = 1.124, p = .570$]; efficacy [$H(43) = 1.478, p = .478$]; likelihood [$H(43) = 0.468, p = .792$].

Perceptions and Onset of TMH

Mann-Whitney U tests were run to determine whether there were differences in institutional factors between those who had begun TMH services pre-COVID and those who had not. No statistically significant differences were found between these groups for enrollment [$U(44) = 200, p = .350$] or number of FTE [$U(44) = 207, p = .261$]. A Chi-square analysis found no statistically significant difference for geographic region [$\chi^2(2, N = 46) = 1.414, p = .493$]. Additional Mann-Whitney U tests revealed no statistically significant differences between these groups in terms of their impressions of the efficacy of telehealth [$U(43) = 190, p = .172$], their comfort with TMH [$U(43) = 126, p = .479$], or their intention to continue use of these services [$U(43) = 162, p = .603$].

Perceptions and Forms of TMH Offered

Participants were able to select more than one option for the modality of TMH services offered. They were grouped based on the number of options they offered (i.e., video only versus video and an outside service). The highest number of types offered was four ($N = 4$). Kruskal-Wallis tests were run to determine whether more TMH options changed participant perceptions, and no statistically significant differences were found for comfort [$H(43) = 2.516, p = .472$], efficacy [$H(43) = 1.879, p = .598$], or likelihood [$H(43) = 0.370, p = .946$]. Linear regressions were run to determine whether institutional factors (geographic region, enrollment, FTE) could predict the offering of more than one TMH modality [$R^2(3, N = 46) = .094, p = .263$], or specifically the offering of an outside service [$R^2(3, N = 46) = 1.33, p = .122$]. No statistically significant predictors were identified.

Due to the skewed data with most responses clustered toward the favorable end, a top box scoring method was used to group participants: those who chose 7 versus those who chose anything lower than 7 for some of the factors measured (Takeshita et al., 2020).

When the top box scoring method was used, a relationship was found between the number of options offered and comfort with telehealth [$U(44) = 169, p = .085$]. This approaches statistical significance, with participants who offered more options more likely to indicate maximum comfort with telehealth.

Outside service. Mann-Whitney U tests were performed to determine any differences between institutions who outsourced their TMH services, at least in part, to an outside service. There were no statistically significant differences found between institutions who used an outside service ($N = 22$) and those who did not ($N = 24$) on comfort [$U(44) = 191, p = .136$], efficacy [$U(44) = 199.5, p = .195$], or likelihood [$U(44) = 188, p = .076$]. However, when the top box scoring method was used, a Chi-square analysis approached statistical significance, showing that those who offered an outside service were more likely to continue use of telehealth in the future [$\chi^2(1, N = 46) = 2.741, p = .098$].

Qualitative Analyses

Four qualitative questions were included in the survey. Not all questions were answered by all participants, and responses were typically quite brief: no more than two or three sentences. Analysis of these data was performed according to the “data analysis spiral” as outlined by Creswell and Poth (2016). Responses to each question were grouped together and read through for clarity. A second reading was performed to identify common themes, and specific words and phrases were highlighted. These themes were contextualized within existing literature researched before, during, and after study completion. There were some overlapping codes and themes

across the four questions, and these were noted and compared within individual participants' responses and across participants. The survey questions are displayed in bold with overall themes underlined and selected quotes in italics to illustrate them more clearly (Creswell & Poth, 2016).

In what way(s), if any, has your telehealth offering changed since the COVID-19 pandemic?

This question was answered by eight participants who reported their institution had offered telehealth in some form prior to COVID. All participants indicated an increase in the percentage of services being offered via telehealth with the onset of COVID. Key themes were training the staff members to use telehealth services and implementing new policies and procedures to serve as many students as possible via telehealth. One respondent also reported an increase in staff comfort with the increased use of telehealth.

We adjusted the criteria for students eligible to receive telehealth so that all students in the state at the time of the appointment could be seen via telehealth. We provided all services via telehealth. We had a procedure allowing students to be seen face-to-face in crisis situations, but we did not implement this procedure in any case. We trained all our staff in the use of telehealth at the start of the pandemic.

Is there anything you would like to share regarding provision of remote services to students residing out of state?

This question was answered by 11 participants. Three mentioned implementation of case management to coordinate care of students out of state. Four participants reported that tracking

the variable laws by state was a challenge, and two specifically mentioned the Psychology Interjurisdictional Compact (PSYPACT) emergency provisions allowing them to provide some services across state lines. One participant reported they ultimately were not able to offer any services to students out of state due to licensing regulations, while five participants acknowledged that some of these rules were relaxed and they were able to continue offering some services, such as group therapy. There was considerable variety state-to-state in terms of what was permitted.

It has been a nightmare - checking each state's rules, for each discipline. The amount of searching and hoops to jump through were exhausting.

Relaxation of licensure rules during the public health emergency did allow us to provide some out of state services, but tracking and staying within widely varying state-to-state allowances was difficult and time consuming.

Is there anything significant you learned or want us to know about telehealth services that you experienced during the pandemic?

This question was answered by 13 participants. A major theme that emerged was technology barriers. Six respondents mentioned difficulty obtaining a reliable internet connection for students and mentioned that HIPAA-compliant technology platforms required negotiations with the university from a budget perspective and an IT perspective.

Trying to convince the university that we needed HIPAA compliant technology (i.e. telehealth platform, encrypted email, etc.) even though we are not technically bound by HIPAA (all of our services are free- we do not collect insurance information) was a bear! Now that students expect telehealth to remain an option, convincing the university to continue to cover the costs of these technologies is likewise difficult.

Student access to viable internet for telehealth was a challenge for some, and staff faced a steep learning curve at the beginning to get up and running with telehealth, having to learn best practices, ethics, etc. as well as new software.

Another theme mentioned by four participants was student comfort: one participant noted that even students who had previously reported being resistant to virtual therapy made the transition. Three participants stated that they surveyed students, and many of the students reported they would like to continue telehealth even when in-person therapy resumes. Telehealth also reportedly made counseling more accessible to more students.

Our office manager digitized all our paperwork beautifully... We are grateful to have been able to continue counseling services, and the upgrades to our systems for paperwork and the increased flexibility to offer in-person or telehealth in the future will ultimately increase access to our center for students.

Conversely, another participant who reported on results of an institutional survey stated that their students would like to return to in-person therapy, despite not outwardly expressing

negative feedback on telehealth. One participant noted greater difficulty engaging students via telehealth compared to in-person therapy:

There is a certain amount of physical and emotional activation that is required for in-person therapy on the part of the client. We found that students who tended to be in bed or in their pajamas were less engaged. We also noted that the 'holding space' created with in-person therapy which often creates a sense of containment and safety was missing with teletherapy. Students were also more distracted by various things in their environment. However, no-show rates were down.

Another noted “Zoom fatigue” on the part of both staff and students, resulting in lower utilization and/or lower efficacy of sessions. A final theme in response to this question was some echoing of the difficulty of providing services across state lines, addressed in a previous question.

Once we figured out how to get started, our only real barrier was the issue with students being outside of our state and therefore not being eligible for our services. Because we live within an hour of 3 different states, we sometimes had students who were out of state but we didn't realize it - either because they did not complete the paperwork properly or because we did not look at their paperwork as closely as we should have.

If you are likely to continue use of telehealth in some form, what would that look like for your center?

A total of 32 participants responded to this question. Almost all participants ($N = 30$) indicated they would move forward with some hybrid model of telehealth and in-person services, and specific sub-themes emerged with regards to determining service delivery.

The first theme was student choice. Several participants ($N = 20$) explicitly stated that students will be able to request telehealth or in-person therapy, provided either modality is deemed appropriate by the provider. Some reported that it is difficult for students to travel to appointments, so they appreciate the convenience of attending appointments virtually, while other students have expressed a desire to return to in-person services, when available. Most offered the stipulation that not all appointments or diagnoses are appropriate for telehealth, and that the counseling center would require in-person services for these individuals or appointment types.

We will offer an array of options based upon student selection as well as sensitivity to symptom severity and level of risk. We will continue to expect all of our staff to be trained and prepared to provide telehealth for students who request this type of service. We do not anticipate hiring an outside service at this time. In the event that the University creates an online only type of student who may reside outside the state,, we will explore options to deliver services in other states.

For students whose level of stability and presenting concerns are deemed appropriate for telehealth, we will be offering the choice between telehealth and in-person.

We are still working on this, but probably telehealth will be offered unless it is clinically inappropriate, such as a client with an active eating disorder or at high risk for suicide. If we have clients with social anxiety, we might allow them to start out using telehealth but work their way up to in-person sessions.

Five participants mentioned continuation of group services via a HIPAA-compliant virtual platform, as they found success with this during COVID. Four participants alluded to continued use of an outside service for specific appointment types, to manage overflow, to introduce more diversity in providers, and to offer proactive self-service to students.

For students who level of stability and presenting concerns are deemed appropriate for telehealth, we will be offering the choice between telehealth and in-person. We will also likely continue some telehealth therapy groups, as it allowed access to groups that in-person may have prohibited.

We may utilize some outside services to be able to meet the student needs for cultural relevancy if hiring in-house diverse staff continues to be a significant challenge.

A final theme mentioned by five participants was the use of telehealth as a continued COVID precaution, if a student or staff member was exhibiting symptoms and it was inappropriate to conduct an in-person session.

If we have to mask to meet safely with students we are likely to offer telehealth for routine visits and transparent masks for crisis evaluations. When masks are no longer needed we will likely offer in-person visits to students who prefer that and telehealth for those who prefer remote care.

Video sessions for clients who are appropriate for such services and would prefer this modality. Will also offer this in lieu of canceling a session if a client is sick (rather than risk them coming into the center even if it's just a cold).

Discussion

Limitations

A power analysis was conducted to determine the minimum number of survey responses required for significance. Commonly accepted values for correlation size ($r = .25$), two-tailed alpha value ($\alpha = .05$) and beta value ($\beta = .20$) indicate a sample size of 123 would be adequate to show significance in statistical analysis (Creswell & Creswell, 2020). The sample size for this project was 65 therefore readers should exercise caution when interpreting these results due to the small sample size, which also necessitated the use of non-parametric statistics. Additionally, by only distributing the survey to the AUCCCD membership, counseling centers who do not maintain a membership in this organization were excluded. It is possible that counseling center directors who felt more strongly about telehealth were more likely to complete the survey. There was also a great deal of strain on counseling center directors in the last academic year, and therefore there were many who may have felt they did not have the time to complete the survey. Despite the small size, the sample did nicely capture diversity in enrollment and geographic region.

The use of primarily quantitative data was not able to fully capture the professionals' experience with use of telemental health (TMH), nor their perceptions of its efficacy with students (Queirós, Faria, & Almeida, 2017). Therefore, more research is needed to elaborate on the experience of professionals using telehealth. Additionally, further research is needed to examine efficacy of specific types of telehealth with varying patient demographics and diagnoses; it is outside of the scope of this research to gather this data, but this study hopes to offer a view of current practices. Finally, this survey instrument was created specifically for this

study and has not been otherwise validated. To the author's knowledge, there is not an existing, clinically validated instrument seeking the same information.

Despite these limitations, this study provides information on the specifics of how TMH services were offered by counseling centers during COVID and offers the valuable perspectives of the providers regarding their experiences and how they intend to continue the implementation of TMH at their respective centers. The provider perspective is not something that has been widely researched and has great relevance when considering the future of telehealth.

Participant Demographics

Comparison to AUCCCD Data

This survey was only distributed to AUCCCD members; therefore, it is helpful to examine the characteristics of respondents to this survey compared to the respondents of the annual Director Survey which is distributed to the same group. The most recently available AUCCCD survey uses a reporting period of July 2020 through June of 2021, and was published in March of 2022 (Gorman et al., 2022). The AUCCCD survey received responses from 273 counseling center directors. This report provides the demographic characteristics of all 833 members, as well as specific data on the members who participated in the survey. The institutional profiles of AUCCCD closely mimics those found in this survey: 98 percent of members reside in the United States, with a total of 14 international members, compared to this study which was 97 percent in the United States and 3 percent international. Of note, there were not any international members who responded to this year's Director Survey. The breakdown of geographic region in the United States for all members is 57 percent East, 24 percent Central, and 17 percent West. For the 2020-2021 survey, 55 percent of respondents were from the East,

25 percent Central, and 20 percent West. Data from this study reflected 57 percent East, 17 percent Central, 22 percent West, and 3 percent international.

The breakdown of AUCCCD members by enrollment using the categories from this study shows 47.2 percent of participating institutions with enrollment under 5,000 students, 26.8 percent between 5,001-15,000 students, 16 percent between 15,001-30,000 students, and 10.1 percent over 30,000 students. For those who contributed to this year's survey, the breakdown is 46.5 percent, 25.5 percent, 16 percent, and 12 percent, respectively. The general decrease in response rate as enrollment increases displayed in the AUCCCD data was not observed in this study, in which enrollment was relatively evenly split: 27 percent under 5,000, 30 percent between 5,001-10,000, 14 percent between 15,001 and 30,000, and 29 percent over 30,001. The AUCCCD study reports clinical FTE, which is defined as "the total number of weekly hours of direct service available at the center divided by 24" (Gorman et al. 2021, p. 33). This number increased as enrollment increased and reflected a range of 0.92-41.96 ($M = 8.12$) (Gorman et al., 2022). These statistics cannot be directly compared to the FTE reporting in this survey because the question was phrased to more specifically inquire about number of staff members which ranged from 1-32 ($M = 11.31$, $Mdn = 8$) rather than the capacity of the center. However, this survey also observed the same expected trend of increasing FTE with increasing enrollment.

AUCCCD data shows an average of 10.7 percent of the student body is served by the counseling center, with higher utilization seen by smaller institutions (Gorman et al., 2022). This inverse relationship was echoed in the results of this study as well, with an average utilization of 10.89 percent in the 2020-2021 academic year, and a statistically significant negative Spearman rank order correlation between overall enrollment and percentage of students utilizing counseling center services ($r_s(45) = -.455$, $p < .001$).

Generally, the demographic characteristics of participants in this study appear to be representative of the population of AUCCCD members, and likewise representative of those who responded to the most recent Director Survey. There is no way to say with certainty that the population of AUCCCD is representative of all counseling center directors, particularly internationally, however this comparison provides greater reassurance that the results in this survey could be generalized to the AUCCCD organization as whole, despite the small sample size.

Survey Completion Demographics

It was noted that a fair number of participants (26%) in this study completed the initial portion of the survey but did not complete any questions related to telehealth. Statistical analyses were conducted to determine if there were any meaningful differences between those who completed the survey and those who did not. The only significant between-group difference was geographic region, with more participants who completed the survey residing in the eastern United States, while those who did not complete it primarily resided in the central United States. It was noted in examining the responses that the incomplete entries occurred during two distinct time windows, so it is possible this was related to an issue with Qualtrics which could have been localized to one specific region. For example, there were six responses initiated from the same state in the Central United States on the same date who did not complete the survey. It is possible this is coincidental, but it does represent 35 percent of the incomplete responses. It is also possible that participants who chose not to complete the survey in its entirety were not offering telehealth and decided not to continue, even though the survey offered an option to indicate that telehealth was not being used.

Telehealth Offerings

Participants were asked about how instruction was offered at their institutions for the Fall 2020 and Spring 2021 semesters. approximately half ($N = 23$) were offering virtual instruction only in the Fall 2020 semester with the other half ($N = 22$) using a combination of virtual and in-person; one participant reported fully in-person instruction. The Spring 2021 semester showed more institutions transitioning to a combination format, with 70 percent ($N = 32$) reporting combination instruction. While these responses show that some coursework was transitioning to in-person, almost all participants (92.5%) reported that over 90 percent of their counseling center services were offered via telehealth during the 2020-2021 academic year.

Forms of Telehealth

Phone and video visits. The primary research question in this study asked how students' mental health was addressed by IHEs during the COVID-19 pandemic. This study showed that all centers were using videoconferencing services, and most (69.6%) were using at least one other form of telehealth. It is unsurprising that videoconferencing is the main method chosen for TMH services as there is good evidence to suggest its efficacy, and it most closely approximates in-person services compared to an audio-only experience of a phone visit, or an asynchronous methodology.

The 2020 AUCCCD survey incorporated a new section to obtain specifics on centers' response to COVID-19 (Gorman et al., 2021), but their questions were restricted to video and phone services. Phone visits were slightly more common than video visits pre-COVID, with an average of 71.1 phone visits provided compared to 17.1 video visits. These numbers reflect the total number of visits between July 1, 2019 and March 15, 2020, so both were used quite sparingly. There was a clear shift to video visits during COVID, with an average of 1,164.8

video visits and 348.6 phone visits between March 16, 2020 and June 30, 2020; this represents a 6,811 percent increase in sessions offered via video and a 390 percent increase in sessions offered via phone (Gorman et al., 2021).

In the Director Survey report for the 2020-2021 academic year, telehealth continued to be the primary source of services offered, with 99.3 percent of centers reporting they routinely offered TMH services (Gorman et al., 2022). Only 15.5 percent of centers reported offering any in-person services; 89.3 percent of centers offered video visits and 56.7 percent offered phone visits (Gorman et al., 2022). The Center for Collegiate Mental Health Services (CCMH) annual report for the 2020-2021 academic year showed 83.1 percent of counseling center visits were conducted via video, followed by 9.3 percent by phone, 5.4 percent by text, and only 2.3 percent in-person (CCMH, 2022).

Duration of Experience with Telehealth

Only nine of the participants in this study had been offering some form of telehealth prior to the onset of the pandemic. There were not any statistically significant differences noted in the demographics of the reporting institutions or, more importantly, the perceptions of comfort and likelihood to continue by the participants. One might expect that those who had a longer history of experience with telehealth may feel more comfortable or be more likely to continue use of such services given that they were already part of the clinical protocol prior to the pandemic. It is possible that the small sample size or the general positive cluster of responses toward the top of the Likert scale prevented between-group differences from being identified, but it is reassuring, nonetheless.

There was a noted positive relationship between offering more than one type of service and choosing a “7” on the Likert scale for telehealth comfort, indicating the provider was as

comfortable offering telehealth services as in-person. On its surface this result may seem counterintuitive, that professionals who mastered just one method might feel more comfortable than those who had to navigate more than one. However, it could also be that these providers were exposed to more than one form and therefore became more comfortable with the concept in general. Perhaps they chose to offer more than one because they were already more comfortable with telehealth before the onset of the pandemic. The great comfort noted by the professionals in this study in general could also be the result of over a year of performing their role almost entirely via telehealth.

Demand for services. Interestingly, 58.3 percent of directors in the AUCCCD survey reported a decrease in demand for services in the 2019-2020 academic year, as compared to an 87.3 percent increase reported in last year's survey for the 2018-2019 academic year. Specifically, they noted a decrease in the number of unique clients and individual appointments, but 80.9 percent of directors reported utilizing a method to manage an increase in demand for services (Gorman et al., 2021). For the 2020-2021 academic year, an additional decrease in service utilization was noted, with an average of 10.7 percent of students using the counseling center; directors were not asked about methods to manage demand in this year's survey (Gorman et al., 2022). The decrease in percent of students served in the 2019-2020 and 2020-2021 school years was observed in this study as well, with 0.51 percent lower utilization from 2018-2019 to 2019-2020, and an additional 2.09 percent drop from 2019-2020 to 2020-2021. It is possible this was due to the drastic change in service delivery with the shift to telehealth. One participant in this study reported a "reduced utilization of services despite obvious mental health challenges." It is also possible that some students were already established with a local provider who they saw at home, and that students who were newly in need of services sought someone local rather than

contacting the counseling center. Additionally, some providers have noted that it was more difficult to onboard new patients via telehealth services than to transition existing patients from in-person to telehealth (Folk et al., 2022).

Use of outside service. Eighteen participants in this study provided the name of the outside service(s) they used. TAO Connect was the most commonly reported ($N = 4$), followed by ProtoCall ($N = 3$) and Christie Campus ($N = 2$). All other responses were only reported by one participant each. There was wide variability noted in the annual cost of such services, with one participant reporting that it was only \$5,000 per year and another reporting \$400,000 annually ($M = \$71,076.92$, $Mdn = \$28,000$). There was not any relationship found between the enrollment and the reported cost, which negates the hypothesis that perhaps larger schools with more students would be spending significantly more on a service. Or the reverse: smaller schools, which are shown to have higher utilization of counseling services, may be spending more to help offset the burden if they are under-resourced. Additionally, it is possible that there were grants or other forms of institutional funding in place when students were off campus that have now been removed.

While many of the analyses run in this study did not find statistically significant results by definition of a p value of .05 or smaller, there were some noted relationships which approached statistical significance and are relevant to consider. Use of an outside service was one such relationship, where participants who indicated use of an outside service were also more likely to choose the top response (7) on the Likert scale asking about likelihood of continuing TMH services moving forward ($p = .098$). This could be due to the perceived success of such service based on student feedback, or it could be that use of a service does not impact the day-to-day practices of the providers and therefore they are happy to continue its use.

There is good data to support the use of mental health intervention and proactive mental wellness care delivered via smartphone apps for college students (Lattie, Lipson & Eisenberg, 2019). In a paper published prior to the outbreak of COVID-19, the authors state “While students could theoretically access these types of programs without involvement from their campus community, counseling centers are unlikely to see reductions in their ever-increasing workload without coordinated efforts to educate students on, and direct them to, technology-enabled programs” (Lattie, Lipson & Eisenberg, 2019, p. 3). These sentiments seem especially prescient in light of the pandemic. In this study, some counseling centers ($N = 9$) were using a service prior to COVID, while many others onboarded a program to assist with coverage during the period of quarantine. Four participants in this survey who were using an outside service specified that they would keep it; one noted use of “self-serve therapy models” while another mentioned a crisis resource.

Outside services also present the possibility for students to receive care in “off hours,” when they may not have availability through the counseling center. Additionally, some students may feel there is greater anonymity when using a platform that is not directly tied to their university health center, which may be appealing to them. Of note, there are varying degrees of communication between these platforms and the providers at the institution, depending upon the program and on the agreement.

Another participant stated, “We may utilize some outside services to be able to meet student needs for cultural relevancy if hiring in-house diverse staff continues to be a significant challenge.” This point is particularly relevant and appears to be pervasive across the field of counseling center providers. While this study did not capture race, gender, or sexuality of participants, the 2020 AUCCCD survey displays and acknowledges that there is a clear lack of

diversity in counseling center providers: 60.5 percent of staff are white, 66.8 percent are cis-female, and 58.8 percent identify as heterosexual (Gorman et al., 2021). The 2021 Director survey found that approximately 80 percent of directors are white, and 70.4 percent identify as cis female. That said, this is not exclusive to counseling center providers. It is estimated that 80.9 percent of mental health professionals in the United States are white, and 70.5 percent are women (Zippia, n.d.). So, while an outside service may offer a wider range of providers, the general field is still lacking in diversity. This is a systemic issue in healthcare, not just in mental health.

Minority students are also less likely to seek traditional mental health services than their white peers (Hadler et al., 2021). This could be attributed to several factors, but research continues to show patient preference for racial, ethnic, and gender concordance between patients and physicians, and in some cases improved patient outcomes as well (Lau et al., 2021; Takeshita et al., 2020). It can also increase the likelihood of a patient seeking a provider for a new problem (Ma, Sanchez, & Ma, 2019), which is particularly relevant in the case of a college student seeking services at their counseling center.

Barriers and Challenges to TMH

The next research question in this study was related to barriers or challenges to offering telehealth services. This data was collected from a quantitative survey question where participants were asked to rank specific challenges from 1-8 (1 being biggest barrier) as well as in their responses to qualitative questions. There was good alignment found between quantitative and qualitative responses in this area.

Licensure

Over half (52.1%) of the participants in this study selected licensure as their first or second greatest barrier or challenge to implementing TMH practices at their center, likely due to the restrictions with serving students out of state. Twenty-three directors in this study (50%) and just over half of the directors in the AUCCCD study (52.6%) reported offering services to students out of state after March of 2020. The AUCCCD data also provides the statistic that only 6 percent of centers were offering out-of-state services pre-COVID (Gorman et al., 2021). In neither the AUCCCD dataset nor in this one was there a visible pattern associated with the size of the institution and their ability to offer services out-of-state. It was noted that all five participants who indicated “none” on the question regarding barriers and challenges also reported they did not offer any services out-of-state. It is possible that the lack of licensure issues contributed to feelings of ease related to implementation of TMH, as all five also reported they did not start their telehealth programs until the onset of COVID.

During the height of the pandemic, some licensure and insurance reimbursement laws were relaxed across a variety of healthcare fields to preserve continuity of care (Brotman & Kotloff, 2021; Gupta et al., 2020). The Psychology Interjurisdictional Compact (PSYPACT) allowed providers to offer services across state lines to patients living in other PSYPACT states (APA, 2021). That said, PSYPACT is only effective in 27 states and requires a membership fee by each provider, which could be cost prohibitive for some (PSYPACT, 2022). One participant reported that PSYPACT is “not an attractive option for our clinicians.” With most college students back on their residential campuses, it is unlikely that most providers will continue to face this as a barrier except for at institutions where remote learning is the norm. Additionally, these laws are highly state-specific and will probably require continued advocacy by licensed

professionals in each state to continue to recognize equal licensure qualifications from differing states.

Reimbursement This situation is still evolving, and licensure laws may be taking the lead from health payors who dictate reimbursement for such services. Prior to the COVID-19 pandemic, the Centers for Medicare and Medicaid Services (CMS) would only approve reimbursement for telehealth visits in very specific circumstances, such as if the patient was in a designated rural area and if the services took place at another medical facility, but not at the patient's home (Brotman & Kotloff, 2021; CMS, 2020b). Even states which offered some coverage for telehealth visits did not guarantee payment parity (equal reimbursement) for telehealth visits compared to in-person appointments, thus disincentivizing providers from offering these appointments (Shachar et al., 2020). Providers have consistently cited lack of reimbursement or difficulty navigating the reimbursement process as a chief reason for not offering telehealth in their clinical practice (Zhu et al., 2021). CMS issued a waiver effective March 6, 2020 in light of the pandemic to approve payment for services offered via telehealth, including those which took place in a patient's residence (CMS, 2020a). CMS is the single largest healthcare payor in the United States, and therefore many commercial insurers follow their lead (Brotman & Kotloff, 2021; CMS, 2020b). This ensured that providers would be paid for telehealth services, thus guaranteeing continued access to healthcare when patients could not physically travel to a provider's office due to shelter-in-place orders (CMS, 2020b).

Initially, this agreement by CMS to reimburse for telehealth (Section 1135 of the Social Security Act) was only intended to be in effect as long as the country was in a state of emergency (Brotman & Kotloff, 2021; Gupta et al., 2020). However, in August of 2020 the Department of Health and Human Services (HHS) and Office of Civil Rights (OCR) made the reimbursement

portion of the policy permanent (Gupta et al., 2020; Haque, 2021). While many counseling centers operate outside of traditional insurance, licensure laws often reflect what will be paid for and therefore counseling center providers could ultimately benefit from this expansion in coverage. This would probably be most applicable for students completing distance learning, as most institutions have brought students back to campus at this time and therefore students are residing within the state where the providers are licensed. However, it could be beneficial in situations where counseling centers want to avail themselves to students over the summer or during academic breaks.

Technology

One commonly reported barrier to effective implementation of TMH was technology; it was indicated as the greatest or second greatest challenge by 54.3 percent of participants in this study. Even a participant who indicated technology was the third greatest challenge wrote “Internet access, technological problems, and privacy were major issues for students as well as staff.” Technology can present as a barrier to successful use of TMH for several reasons: difficulty establishing a therapeutic alliance in a remote setting, lack of engagement from the client, or literal difficulties with the hardware or software connection (Wootton et al., 2020).

The implementation of telehealth technology has potential to better serve students. Five participants in this study reported they intend to continue using TMH to see students more quickly and for triage appointments. Eight participants elaborated on the barriers and challenges by stating that technology was an initial hurdle that has mostly resolved now that their telehealth systems are established, and the students and staff are accustomed to this method.

Most counseling center directors (87.3%) reported in 2019 that they had an increase in the demand for service (LeViness et al., 2020). Counselors at the University of Florida

published a report about their experience of offering TMH services with the onset of COVID (Orlovic et al., 2021). Consistent with other institutions in the AUCCCD study, they saw an overall drop in appointment requests after March of 2020 (Gorman et al., 2021). However, they had a significant increase in the number of triage appointments when they implemented a TMH system which allowed these to occur within 24 hours of the student's request (Orlovic et al., 2021). Psychiatric providers at Michigan State University also published a narrative of their experience, reporting that they initially lengthened their appointment times to account for technological difficulties but have since been able to revert to their typical schedules (Quinlan et al., 2021).

In a study that ran a randomized controlled trial with 50 young adults (aged 18-29) with HIV which included over 500 video counseling sessions. The researchers found that setting expectations for potential technological difficulties with clients from the beginning was helpful. These included the positive aspects (easier, more convenient) and negative (clinician may appear differently over video, unstable connection). They recommended creating a log of any issues and including the troubleshooting methods used as well as the outcome of each session. Beginning these sessions with transparency and keeping a detailed log of any issues can help with future sessions, not only for that client but for others (Wootton et al., 2020). These practices can help to ensure that technology remains a minimal barrier to effective care.

While most technology barriers were likely addressed early on during the pandemic, there are some considerations of video technology specifically which should be acknowledged. The default setting for most platforms allows the provider and patient to see one another, but also their own video feed. This "self-view" could potentially interfere with the patient's ability or willingness to self-disclose (Chiauzzi, Clayton & Huh-Yoo, 2020). Anyone who has been on a

Zoom call throughout the pandemic has surely experienced the distracting phenomenon of only looking at your own face during the interaction, which is surely different than an in-person experience where you do not have a view of yourself. Other body language cues such as proximity, eye contact, and body position are also limited or distorted by videoconferencing (Chiauzzi, Clayton & Huh-Yoo, 2020). So, while existing research shows videoconferencing to be quite an effective tool for many mental health diagnoses, it is important for providers and patients to be aware of some of the limitations.

One major recognized obstacle of telehealth is the disparity in access to reliable internet and hardware (laptop, smartphone) for many individuals to access services. This is presumably less of an issue at most IHEs, but still something to consider as some students may arrive on campus without a personal laptop and be reliant on the school's technology. It would be important for the campus to have safe space available for these students to conduct TMH sessions, should that be their preferred method of services. Perhaps private spaces which could be used for studying, therapy, or connecting with loved ones at home might be a way to offer students the resources they need without any fear of stigma for seeking help for a mental health challenge.

Privacy

A third barrier or challenge, with 26.1 percent of participants ($N = 12$) choosing it as their first or second greatest obstacle, was privacy. It should be noted that there was some overlap between privacy and technology, as one of the themes that emerged in the qualitative questions was the implementation of a HIPAA-compliant platform. The Department of Health and Human Services offered good faith protections at the start of the pandemic, meaning that providers who were not yet equipped with a HIPAA-compliant platform could see patients via telehealth (Folk

et al., 2022). As stated by Chiauzzi and colleagues (2020), “The loosening of regulations correctly prioritized access to care over the tools that enabled it” (p. 4). That said, the expectation was that providers would quickly and eventually move to a HIPAA-compliant method (Zhu et al., 2021), and most counseling center directors (83.6%) report using a HIPAA-compliant platform in the most recent AUCCCD report (Gorman et al., 2021). The most popular system reported in the AUCCCD report is Zoom for Health (41.6%) followed by Doxy Me (14.9%). In addition to audio and video encryption, some of these platforms can link directly to the electronic medical record (EMR) system used by the provider, and many do not require the patient to download software but are simply accessed through a browser link (Chiauzzi, Clayton & Huh-Yoo, 2020).

The term “privacy” could have also been interpreted differently by participants to mean the privacy of the session for the provider or for the student based on where their location. Many individuals faced crowded living situations with multiple family members trying to work or attend school from home, and therefore it may have been challenging for providers and for students to find a quiet and safe space to conduct their sessions (Chiauzzi, Clayton & Huh-Yoo, 2020). It is possible that some of the individuals who indicated that privacy was a challenge were referring to it in this context, and not to the difficulty of convincing their institution or IT department to approve use of a new platform. If the provider or the student perceived that their session was not private, it is possible that it could interfere with the therapeutic alliance and with the productivity of the session.

Training in Telehealth

Training of existing providers. One available option listed in this survey as a barrier or challenge was “lack of staff.” This phrasing may have missed an opportunity to capture a more

specific challenge, which was lack of training in telehealth techniques rather than an actual shortage of personnel. Only two participants indicated it was their greatest challenge, with an additional four participants selecting it as their second greatest challenge.

Staff training emerged as a central theme in the qualitative responses from participants, and much of the literature published in this area since COVID has been on the need for training in telehealth. Clinicians at the University of San Diego state: “The need to adopt and increase training in telehealth is no longer an innovative idea or elective, but a necessity to provide” (Callahan, Cameron & Tremble, 2021, p. 12-13). Six participants in this study, when asked about their future plans for telehealth, specified that all staff members will be expected to be trained in telehealth techniques.

Like the technology challenges, this was likely an initial barrier that will not continue to present an issue now that the infrastructure is in place. Certainly, the introduction of new techniques and platforms with research will warrant continued education, however most staff are likely trained and increasing their comfort level at this point in time. It is interesting to consider how some staff members may gravitate toward or away from telehealth depending on their specialties and preferences.

Training of future mental health professionals. The question of training in telehealth is actually twofold: the training of existing providers when telehealth was first implemented, and the training of graduate clinicians who needed to learn remotely and develop therapeutic techniques via telehealth, and will be expected to be proficient in these techniques in their careers. In this study, most clinicians self-reported high comfort levels with providing telehealth. It would be interesting to look at their impressions of their own skill level prior to COVID; this survey did not inquire about provider perceptions of telehealth pre-COVID.

Literature on this is still evolving as training programs adapt, but one study involved 11 students who piloted an interprofessional telehealth training program and were interviewed on their impressions (Johnson & Rehfuss, 2020). Common themes that emerged were a new awareness of the benefits of telehealth, a need for more training in this area, and some concerns and challenges about its application. The students reported that more exposure and hands-on experience in telehealth increased their comfort with it (Johnson & Rehfuss, 2020).

All indications seem to suggest telehealth is here to stay, therefore training programs for all healthcare professions will need to adapt in order to include it in curriculums. This area is a beautiful illustration of change theory at work. In the “unfreezing” phase, the definition of “face to face” was adjusted when considering the number of client hours these students had to complete to fulfill degree requirements (Ortiz & Levine, 2021). In the “refreezing” phase, degree requirements will not only allow for some hours to be completed via telehealth rather than in-person, but will likely demand it. If mental healthcare providers are trained in and more comfortable with offering telehealth, it is reasonable to expect provision of these services to grow. Future providers should take particular interest in videoconferencing, as this appears to be the most pervasive form of telehealth being implemented. The ability to establish a therapeutic relationship via video, as well as the potential for transitioning a client from in-person to video, or vice versa, will be critical skills for clinicians to develop. Telehealth has great potential for expanding access to care, particularly for those who have not previously felt it was attainable or for those seeking racial/ethnic or gender concordance. Degree programs should bear this in mind when recruiting and accepting new students for a more representative population of providers.

Perceptions of Telehealth

An additional research question sought to find institutional factors correlated with an intention to continue TMH services. While barriers and challenges to telehealth were cited and acknowledged in this survey, the response was overwhelmingly positive. The great majority of providers (82.6%) selected a 6 or 7 for both comfort level and for their likelihood of continuing TMH services. All participants chose a 5 or greater for their perception of the efficacy of TMH compared to in-person services. This prompted a use of the top box scoring technique to attempt to establish some between-group differences for those who chose the highest response (7) and those who chose anything lower. Even with this technique, most analyses did not reach statistical significance with a p value of .05. From a practical standpoint, the lack of significant findings when searching for between-group differences (institution size, geographic location, whether they were offering TMH pre-COVID) is quite reassuring. Regardless of their geography, institution size, years of experience with telehealth, or chosen TMH modality consistently reported they were comfortable offering TMH, found it to be effective, and intended to continue use of these services.

This comfort with TMH services was echoed in a survey study conducted with mental health providers at the Mayo Clinic in Rochester, MN (Gentry et al., 2021). The researchers used three clinically validated Likert-scale tools: the Acceptability of Intervention Measure (AIM), Intervention Appropriateness Measure (IAM), and Feasibility of Intervention Measure (FIM), as well as some specific items related to COVID-19. While Mayo Clinic had initiated telehealth in 2015, only a few providers were conducting visits, and not on a regular basis. Almost all participants (107 of 112) indicated that they would like TMH visits, specifically by video, to account for at least a quarter of their future clinical practice. The majority (79.5%) also reported

that their patients seemed satisfied with the video visits (Gentry et al., 2021). It is important to note the time frame of this study, which was still early in the pandemic when most of these providers were relatively new to telehealth, and their impressions were still quite positive.

Another group of researchers surveyed mental health professionals licensed in the state of Florida regarding their telehealth practices before and during/after COVID, as well as their intention to continue TMH services in their practice (Zhu et al., 2021). Of the 175 providers who responded to the survey, 40.6 percent reported that they were using telehealth daily in their clinical practice. Their expectations for continued use were not significantly correlated with practice type (private practice vs. large healthcare system, etc.) or provider specialty. They did find that providers in rural areas and those who had patients paying out of pocket rather than using insurance were more likely to indicate continued use of TMH. They state, “The acceptance and expectation to use telemedicine more in the future despite eased social distancing mandates suggest that telemental health providers see it as the future of health care delivery” (Zhu et al., 2021, p. 5).

One group of researchers examined perceptions of telehealth compared to in-person services with a survey of mental health, primary care, medical specialty, and surgical specialty providers in the Veterans Affairs (VA) healthcare system (Connolly et al., 2021). The survey was distributed in May-June of 2020, during which time this particular VA system had nearly 300,000 outpatient visits. They received 1,028 responses, approximately half of whom worked in mental health. Three quarters of the respondents (75.8%) rated the quality and efficiency of care delivered via telehealth as the same or better than in-person care with masks. The caveat regarding masks is important here, as they are not comparing telehealth to pre-COVID in-person visits. However, the generally positive response from providers was encouraging especially

because it was distributed relatively soon after the shift to telehealth, and satisfaction with new technology tends to be correlated to duration of use (Connolly et al., 2020; Connolly et al., 2021).

Conceptual Framework: Diffusion of Innovation and Change Theories

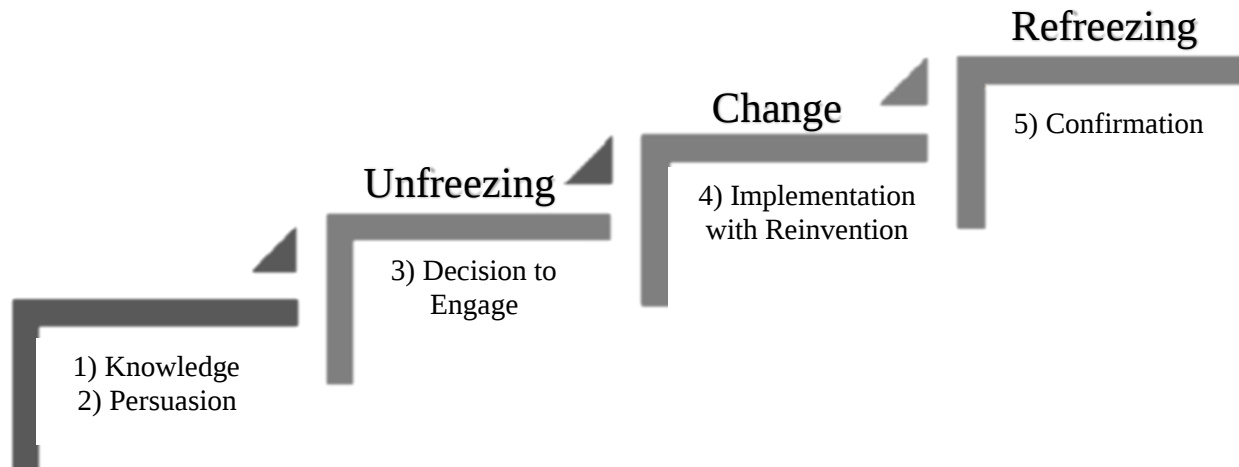
This study was developed through the lens of change theory, with the idea that the onset of a pandemic forced counseling centers into a rapid unfreezing, continual change throughout the height of the pandemic and the guarded return of students to campuses with hybrid instruction and continued mask-wearing, and a point of refreezing with new infrastructures and trainings in place to allow telehealth to continue, if desired. That said, the diffusion of innovation theory provides additional insights on why communication among professionals about their experience during the pandemic was helpful, and how it might help to make the refreezing phase more productive and well-informed.

Originally described by Rogers in 1962, the diffusion of innovation theory seeks to explain how ideas are spread through a system or community (Johnson & Rehfuss, 2020). Rogers (2003) asserts that even when a new idea has obvious benefits, it can often take time for it to be fully adopted. Telehealth has been around since the 1990s, but not widely implemented until necessitated by COVID. In the context of this theory, diffusion is a specific type of communication characterized by the exchange of information that is new, within a specific social network over time. The newness results in some uncertainty by the members of the network due to a lack of predictability. The idea or innovation does not need to be chronologically new, as long as it is new to the members who are communicating about it.

There are characteristics of the innovation itself which influence the speed at which it is adopted by the community: relative advantage, compatibility, trialability, observability, and less

complexity. According to Rogers (2003), innovations that meet these five characteristics spread rapidly. COVID presents an interesting exception to this rule because, while none of the five characteristics were met, the innovation was forced to spread out of necessity. That is, providers who were not experienced in telehealth may not have seen a relative advantage over in-person treatment. Many did not have the technology infrastructure in place to make its use compatible with their day-to-day care. They did not have the opportunity to trial their systems for a period prior to full implementation, and likewise were not immediately able to observe the results of telehealth within their peer network. Rather than seeing early versus late adopters of the innovation, almost all providers had to initiate these services at the same time. Particularly for those who did not have any telehealth experience prior to COVID, it certainly was not less complex than their existing methods. But, as stated in change theory literature, an “unfreezing” period caused by an external force can often be quite rapid.

The innovation-diffusion process involves five steps: knowledge of the innovation’s existence, forming an attitude or opinion about the innovation, decision to engage with or reject the innovation, implementation with the likelihood of re-invention over time, and confirmation to continue with the decision to use the innovation. These steps can be mapped into Lewin’s change theory, as seen in Figure 9.

Figure 9*Change Theory and Diffusion of Innovation Theory*

The knowledge and persuasion phases would represent the impetus for change, and in this instance those phases happened quite rapidly for most centers, as did the decision to engage. The implementation and re-invention, as well as the confirmation of the innovation, are the stages that were focused on in this survey study. Critical to the success of the spread of innovation is information-seeking, which is a chief goal of this study. Spreading information about how others have successfully (or unsuccessfully) implemented this innovation has the potential to improve the widespread use of telehealth.

One key aspect of the diffusion of innovation theory is that the members of the group must view the new behavior as innovative (Johnson & Reh fuss, 2020). It is interesting to consider the weight of this in the context of the “refreezing” phase of change theory. Those who do not view telehealth as innovative will likely refreeze without it, when they are able to fully resume in-person therapies. Student impressions will also play a role: if they view telehealth as innovative, or even just preferable, it could sway providers to retain it as an option.

Implications for the Field

Student Openness to TMH

While this survey study focused on providers, it is important to continue consideration of the student perspective on TMH. Much of the literature regarding the use of TMH by college students was published prior to the pandemic when it was an option in lieu of, or in addition to, in-person counseling services. While efficacy data was good, some research reflected resistance to TMH, or simply a preference for in-person services, by college students. One participant in this study reported “We were surprised by how readily students made the transition after resisting teletherapy in the past.” Once TMH became the only choice, it seems many students were quick to adapt and benefit from these services.

Researchers, providers, and students still agree that TMH is a convenient option and is helpful (Hadler et al., 2021). In a review of literature on this topic, Hadler and colleagues (2021) describe the structural and psychological barriers to seeking mental health services, such as difficulty finding a provider or finding an appointment time that works with their schedule (structural) or being fearful of judgment by others should they discover that treatment of mental illness is being sought (psychological). TMH has the potential to overcome both barriers, and there will surely be a great deal of research emerging on student acceptance of TMH in a post-COVID world.

In many cases, students are being open and honest about what they need from their institutions. The Jed Foundation, a non-profit seeking to protect emotional health and prevent suicide among young adults, conducted a survey of 182 students from 79 universities (2020). When students were asked what tools they are currently using to care for their mental health, the most common answer (71%) was listening to music, followed by support from friends (48%) and

going for a walk (47%). But when offered a list of potential school services and asked which would be appealing if available, 71 percent selected telemental health, 49 percent selected student support groups, and 27 percent selected telehealth (Jed Foundation, 2020). Students are becoming increasingly open about their mental health needs as the stigma surrounding help-seeking diminishes, and this generation is open to receiving help in new ways.

The continued mentions of student choice by participants in this study were particularly striking: counseling center providers are striving to do what is best for their students and are motivated to offer multiple options to best suit the needs of their population. Some participants reported that they are already surveying their students on their impressions of telehealth and receiving mixed feedback. Some reported their students love telehealth and want to keep it as an option, while another participant reported that their students want to transition back to in-person services as soon as possible. This survey did not directly ask whether institutions had been surveying students, some participants simply added it to their comments in the qualitative responses. Of note, the one participant who mentioned all students want to return to in-person services reported offering video and phone, as well as an outside service. Another participant who stated students love it offered only video, while another offered video and an outside service. There are certainly many other factors to consider when evaluating student impressions of TMH, but modality is a large factor. It is also entirely possible that the framing of the survey questions influenced how students responded with their preferences. This is a large future direction for research; the sample size of responses on the subject in this study was simply not large enough to do any meaningful analyses.

Students need these options for support during this time, and institutions now have the ability and the infrastructure to keep them more widely available. Continued communication and

sharing of resources will be a key to maintaining thoughtful and effective services, in whatever form, to college students.

Provider Acceptance of TMH

The onset of COVID-19 was a trying time for counseling center providers. Not only did they need to quickly implement new processes and technologies amidst confusion over licensure and policies, but students were presenting with new mental health challenges related to being displaced from campus. The results of this survey study reflect this. Providers were very open about the difficulties they faced, using phrases such as “time-consuming,” “exhausting,” and “terrible.” Despite that, they seemed optimistic about the use of telehealth in their clinical protocols moving forward. Many of the challenges they referenced seemed to be initial hurdles which have now been overcome: gaining access and approvals for appropriate technology, navigating out-of-state services, and training staff in use of telehealth. The optimism shown by participants about continuing TMH services in some form speaks to their own experience of working with students in this way and the adaptability of both providers and students. Past research has shown that provider reluctance has been a significant barrier to the widespread use of telehealth, but much of this was likely eradicated during the pandemic (Gentry et al., 2021).

There is a great amount of research about the efficacy of telehealth for specific populations and diagnoses, and likely much more will emerge across fields now that telehealth has been used routinely for almost two years. That said, more research on provider acceptance and their role in program design is needed. While many providers across healthcare fields faced feelings of hopelessness and burnout during the pandemic, it matters what they think and what their opinions are on how to best move forward. If providers and patients do not find telemedicine to be at least as sufficient as in-person care, the technology will cease to be used

(Gentry et al., 2021; Nguyen et al., 2020). The field of mental health is particularly well-suited to a transition to telehealth, if preferred, because a physical examination is not required (Connolly et al., 2021; Zhu et al., 2021). Other research has shown that provider satisfaction with new programs is improved if they are involved in the development process (Nguyen et al., 2020). There is an opportunity here for counseling centers to use what they have learned thus far with telehealth to create a program that best serves the students and the providers.

Implementation of New Protocols

Centers who continue to offer TMH services must keep their technology up to date, stay current on appropriate protocols for staff training, and listen to feedback from their students about the best way to serve their mental health needs. As stated by Folk and colleagues (2022), “Programs would benefit from retaining and consistently updating telehealth practices and provider training, as this will allow for more nimble shifts between in-person and telehealth services as needed” (p. 288).

Communication among providers will assist in the continued re-invention of such protocols. The American Council on Education (ACE) in conjunction with other organizations focused on the wellness of college students has prepared a document entitled “Mental Health, Higher Education, and COVID-19” (2020). It makes general suggestions for what campus leaders can do to best support students and provides examples of what specific institutions are implementing to serve their communities of students and staff. For example, the virtual support groups for women of color at Montclair State University, and a new Kent State web page providing easy access to information regarding telehealth and telemedicine options. Finally, the contributors emphasize the importance of continued gathering of information and urge

institutions to partake in large-scale surveys such as the National College Health Assessment and the Healthy Minds Survey to get a picture of what their students are facing (ACE, 2020).

Training Future Providers

This study did not gather information on the training of mental health professionals, beyond asking about the number of graduate trainee clinicians. However, based on the literature, it is imperative that providers advocate for changes in graduate programs. First, there is a clear lack of diversity in providers which is an issue that is pervasive across all healthcare fields. Professionals involved in the recruiting and admissions of students should consider the diversity of the population they serve and the importance of concordance in healthcare providers. College can often be a time of identity-seeking and development for students, and therefore concordance may be especially important during these years. Additionally, training programs need to adapt to include and encourage use of TMH practices so that future providers are well-suited to offer the modality of services preferred by their patient population.

Conclusion

The main research question in this study sought to determine how counseling centers were serving the mental health needs of students during COVID-19. The question was initially framed this way to be inclusive of counseling centers who may not have chosen to offer telehealth services during the pandemic, but all participants in this study were utilizing telehealth. They faced many obstacles, but it appeared that most of the hurdles were early on to develop the infrastructure and navigate changing legislation, and that most are now in a more comfortable place where telehealth has become part of their everyday service offerings. Regardless of institution size, geographic location, or type of telehealth offered, the overwhelming majority of participants responded positively that they are comfortable with telehealth, believe in its efficacy, and intend to continue use of it in some form.

Further research is needed to delineate specific populations or diagnoses which are better suited to telehealth practices, as well as student perceptions of their comfort with it and its efficacy. It would be an oversimplification to look at the percentages of service utilization before and after the introduction of telehealth, but there is likely a rich data set of students who have experienced both in-person and telehealth services and are willing to provide their impressions. Additionally, telehealth can take on many forms, so further research can help to provide guidance on what is most attractive to and helpful for students who are struggling with mental health challenges.

While the pandemic devastated and overburdened the healthcare system in many ways, it also presented a much-needed push across fields to implement telehealth services. While not appropriate for all patients, providers, or specialties, telehealth is particularly well-suited to

mental health services, and can also provide care to underserved populations and present opportunities for racial or gender concurrence in medical providers.

It is helpful to return to an ice cube visualization for change theory in this context. COVID was a pot of boiling water, completely dissolving existing systems and procedures. Providers and patients had to wade through the puddle (more like a rushing river in many instances) to determine the best way through without causing too much damage. The refreezing is still occurring, but things will more than likely look different from the way they began. Rather than losing any water, this new ice cube is wider and flatter, representing the broader reach and new directions while maintaining its core properties with both the providers and patients having gained experience and growing comfort along the way.

Reflections

In early 2020, I became interested in the topic of the growing mental health crisis among college students. I decided to make that the focus of my dissertation research and began reading in an attempt to narrow my research questions. I was particularly interested in the idea of telehealth delivered via smartphones amidst growing concerns that those smartphones were a big contributor to the growing anxiety and depression in this population. That paradox was and is interesting to me, though I now believe that the reason behind these reported symptoms is much more nuanced than too much time on social media.

When COVID hit and there was a rapid shift to telehealth across the entire healthcare space, my research focus narrowed more specifically to that area. In the process of considering methodologies and what I could realistically and productively achieve with a dissertation study, I decided to survey the counseling center professionals to determine what type of telehealth was being offered to their students. My thought was that this would be a logical first step before trying to tease out efficacy or even the student perspective on these technologies. In other words, I could not begin to answer the question of whether telehealth was an appropriate avenue for college students without fully understanding what telehealth meant in the context of this population. Despite my methodology focusing on the providers of mental health, my main interest (and theirs, I am confident) is how to best serve students.

While much of the coverage of the pandemic has focused on the physical implications of disease, there has also been a great deal of conversation surrounding the mental health implications for individuals worldwide. From newborn babies looking at masked faces, to children completing critical elementary school lessons via Zoom, high school and college students missing social interaction and milestones, adults juggling working from home and the

aforementioned Zoom school, and elderly individuals isolated in fear of contracting a disease that is more dangerous to them; individuals of all ages have been affected. Vaccines emerged remarkably quickly to help alleviate the severity of the disease, but there is no predicting the trajectory of the emotional toll of the pandemic and quarantine.

In her new book *Atlas of the Heart*, researcher and social worker Brené Brown asserts “The ability to recognize, label, name... is inextricably linked to the ability to move through and heal” (2021). The goal of the book is to provide definitions of and clarity about 87 different emotions. Because COVID-19 has provided some momentum to the movement of talking about mental health and decreasing stigma, lessons such as these can be crucial to describing what we are feeling. A perfect example is the distinction between anxiety and stress. In the American College Health Association (ACHA) National College Health Assessment (NCHA) and the Healthy Minds Study (HMS), both heavily referenced in the review of literature, students are asked to self-report on their levels of stress and anxiety among other emotions and reflect on its impact on their daily life and academic performance. It is highly likely that students have differing definitions of these words, and even that they may be used interchangeably by some individuals.

Brown defines stress as “when we evaluate environmental demand as beyond our ability to cope successfully. This includes elements of unpredictability, uncontrollability, and feeling overloaded” (2021). She adds that feeling “overwhelmed” is an extreme level of stress, which can lead to poor decision making due to the inability to identify or describe what you are feeling. Anxiety, on the other hand, is “an escalating loss of control, worst-case scenario thinking and imagery, total uncertainty, tension, worried thoughts, and physical changes like increased blood pressure.” She emphasizes that anxiety can be both a state and a trait, meaning that it could be a

temporary condition caused by a specific circumstance or part of an individual's personality, respectively. Both state and trait anxiety are different from generalized anxiety disorder, but all forms of anxiety can lead to excessive worrying and/or avoidance (Brown, 2021).

This represents a wide spectrum of different emotions with words which certainly should not be used interchangeably. This does not diminish the significance of the findings of the NCHA or HMS; students are reporting that they are struggling with the means offered to them, and more importantly a greater percentage of students are reporting these struggles on these same instruments with each passing year. But a college student checking a box to indicate they are stressed because they happen to be procrastinating a term paper by completing the survey is quite different from a student checking boxes for "stress" and "anxiety" because they are completely at a loss for how to navigate the academic challenges being presented.

In hindsight, I think my initial interest in the subject of college students' mental health was a bit skeptical, if not cynical. (I will admit, I was heavily influenced by Jonathan Haidt and Greg Lukianoff's work, specifically their book entitled *The Coddling of the American Mind*.) What is wrong with this generation (or with their parents) that is causing such crippling mental health concerns? Why are they so obsessed with social media if they know it is making them feel bad? Continued research, reading, and listening has still not answered the question of "why" we are seeing this extreme rise in mental health symptoms, but has brought me to a substantially more compassionate place. Instead of only seeing the anxiety and depression, I also see the generation that feels strongly about climate change, racial equality, gender diversity and sexual orientation, and social justice issues. These deep feelings cut both ways, and it is critical for this generation to be provided with the resources and support to make the changes that are needed in the world.

In thinking about the opportunities for delivery of mental health services via telehealth, I think that a proactive, educational model using some of the lessons taught in Brown's book, among other tools, could be incredibly useful in helping students to recognize their emotions and communicate them effectively. I feel excited about the prospect of entering the higher education space and working with these students and with fellow professionals who feel just as strongly about facilitating their goals.

References

- About mental health: Statistics.* (n.d.) Active Minds. Retrieved October 14, 2020, from <https://www.activeminds.org/about-mental-health/statistics/>
- American College Health Association (ACHA) (2021). *American College Health Association-National College Health Assessment III*. [Reference Group Executive Summary Fall 2021.] Silver Spring, MD. Retrieved from https://www.acha.org/documents/ncha/NCHA-III_FALL_2021_UNDERGRADUATE_REFERENCE_GROUP_EXECUTIVE_SUMMARY.pdf
- American Council on Education (2020). Mental health, higher education, and COVID-19: Strategies for leaders to support campus well-being. Retrieved from <https://www.acenet.edu/Documents/Mental-Health-Higher-Education-Covid-19.pdf>
- American Psychological Association (APA) (2019). *Stress in America 2019*. Washington, DC: American Psychological Association.
<https://www.apa.org/news/press/releases/stress/2019/stress-america-2019.pdf>
- American Psychological Association (APA) (2020). *Stress in America 2020*. Washington, DC: American Psychological Association.
<https://www.apa.org/news/press/releases/stress/2020/sia-mental-health-crisis.pdf>
- American Psychological Association (APA) (2021). *Stress in America 2021: Stress and decision making during the pandemic*. Washington, DC: American Psychological Association.
- American Psychological Association (APA) (2021). *What to know about doing telehealth in a different state*. Washington, DC: American Psychological Association.
<https://www.apaservices.org/practice/legal/technology/telehealth-different-state>
- Anderson, G. (2020, September 11). *Mental health needs rise with pandemic*. Inside Higher Ed.
<https://www.insidehighered.com/news/2020/09/11/students-great-need-mental-health-support-during-pandemic>

- Anderson, G. (2020, October 1). *Extending the reach of mental health therapy*. Inside Higher Ed. <https://www.insidehighered.com/news/2020/10/01/teletherapy-platforms-extend-reach-college-counseling-centers>
- Association for University and College Counseling Center Directors (n.d.) *General membership criteria*. <https://taucccd.memberclicks.net/about-joining>
- Backhaus, A., Agha, Z., Maglione, M. L., Repp, A., Ross, B., Zuest, D., Rice-Thorp, N. M., Lohr, J., & Thorp, S. R. (2012). Videoconferencing psychotherapy: A systematic review. *Psychological Services*, 9(2), 111-131.
- Barton, A. L., & Hirsch, J. K. (2016). Permissive parenting and mental health in college students: Mediating effects of academic entitlement. *Journal of American College Health*, 64(1), 1-8.
- Becevic, M., Boren, S., Mutrux, R., Shah, Z., & Banerjee, S. (2015). User satisfaction with telehealth: Study of patients, providers, and coordinators. *The Health Care Manager*, 34(4), 337-349.
- Beiter, R., Nash, R., McCrady, M., Rhoades, D., Linscomb, M., Clarahan, M., & Sammut, S. (2015). The prevalence and correlates of depression, anxiety, and stress in a sample of college students. *Journal of Affective Disorders*, 173, 90-96.
- Bemme, D. (2019). Finding “what works”: Theory of change, contingent universals, and virtuous failure in global mental health. *Culture, Medicine, & Psychiatry*, 43, 574-595.
- Bishop, J. B. (2006). College and university counseling centers: Questions in search of answers. *Journal of College Counseling*, 9, 6-19.
- Brotman, J. J. & Kotloff, R. M. (2021). Providing outpatient telehealth services in the United States before and during coronavirus disease 2019. *CHEST Reviews*, in press.
- Brown, B. (2021). *Atlas of the heart: Mapping meaningful connection and the language of human experience*. Ebury Publishing.

Brown, S. (2020). In focus: How are counsellors coping with COVID-19? *Therapy Today*, 31(4).

<https://www.bacp.co.uk/bacp-journals/therapy-today/2020/may-2020/in-focus/>

Brownson, C., Pitasky, S., Morpeth, E., Jean-Pierre, A., Pulandia, M., Locke, B., Depalma, N.,

Creppage, C., Cowan, C., Milner, A., Bailey, J., Strayer, L., Mitchell, J., &

Schwabenbauer, J. (2021, January 26). *State-by-state guide to the rules/laws about*

telehealth services across state lines. [Spreadsheet].

https://cmhc.utexas.edu/state_telehealth.html

Callahan, W., Cameron, E., & Tremble, C. (2021). Launching a university telemental health

counseling training clinic: A case study. *Journal of Technology in Counselor Education*

and Supervision, 1(1), 12-18.

Canto, A. I., Cox, B. E., Osborn, D., Swanbrow Becker, M., & Hayden, S. (2017). College

students in crisis: Prevention, identification, and response options for campus housing

professionals. *The Journal of College and University Student Housing*, 43(2), 44-57.

Center for Collegiate Mental Health (CCMH) (2020, January). *2019 Annual Report* (Publication

No. STA 20-244). Retrieved from

<https://ccmh.psu.edu/assets/docs/2020%20CCMH%20Annual%20Report.pdf>

Center for Collegiate Mental Health (2022). *2021 Annual Report* (Publication No. STA 11-132).

Centers for Disease Control and Prevention (CDC) (2011). *Behavioral risk factor surveillance*

system survey data. Atlanta, Georgia: U.S. Department of Health and Human Services,

Centers for Disease Control and Prevention. Retrieved from

https://www.cdc.gov/brfss/annual_data/2011/pdf/overview_11.pdf

Centers for Disease Control and Prevention (CDC) (2019). *Behavioral risk factor surveillance*

- system survey data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Retrieved from https://www.cdc.gov/brfss/annual_data/2019/pdf/overview-2019-508.pdf
- Centers for Disease Control and Prevention (CDC) (2020, June 10). *Using telehealth to expand access to essential health services during the COVID-19 pandemic*. Retrieved from <https://www.cdc.gov/coronavirus/2019-ncov/hcp/telehealth.html>
- Center for Medicare and Medicaid Services. (2020, March 17). *Medicare telemedicine health care provider fact sheet*. Retrieved from <https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet>
- Center for Medicare and Medicaid Services. (2020, February). *Medicaid and CHIP beneficiary profile: Characteristics, health status, access, utilization, expenditures, and experience*. Retrieved from <https://www.medicaid.gov/medicaid/quality-of-care/downloads/beneficiary-profile.pdf>
- Centers for Medicare and Medicaid Services (CMS) (2020). *COVID-19 emergency declaration blanket waivers for health care providers*. Retrieved from <https://www.cms.gov/files/document/summary-covid-19-emergency-declaration-waivers.pdf>
- Chiauzzi, E., Clayton, A., & Huh-Yoo, J. (2020). Videoconferencing-based telemental health: Important questions for the COVID-19 era from clinical and patient-centered perspectives. *Journal of Medical Internet Research*, 7(12), 1-12).
- Cole, E. (2020, April 28). *Remote options keep mental health services available*. News Tribune. <https://www.newstribune.com/news/local/story/2020/apr/28/remote-options-keep-mental-health-services-available/825715/>

- Connolly, S. L., Miller, C. J., Lindsay, J. A. & Bauer, M. S. (2020). A systematic review of providers' attitudes toward telemental health via videoconferencing. *Clinical Psychology Science and Practice*, 27(2).
- Connolly, S. L., Gifford, A. L., Miller, C. J., Bauer, M. S., Lehmann, L. S., & Charness, M. E. (2021). Provider perceptions of virtual care during the coronavirus disease 2019 pandemic. *Medical Care*, 59(7), 646- 651.
- Copeland, W. E., McGinnis, E., Bai, Y., Adams, Z., Nardone, H., Devadanam, V., Rettew, J., & Hudziak, J. J. (2021). Impact of COVID-19 pandemic on college student mental health and wellness. *Journal of the American Academy of Child & Adolescent Psychiatry*, 60(1), 134-141.
- Cornish, P. A., Berry, G., Benton, S., Barros-Gomes, P., Johnson, D., Ginsburg, R., Whelan, B., Fawcett, E., & Romano, V. (2017). Meeting the mental health needs of today's college student: Reinventing services through Stepped Care 2.0. *Psychological Services*, 14(4), 428–442.
- Creswell, J. W. & Creswell, J. D. (2020). *Research design: Qualitative, quantitative, and mixed methods approaches*. (5th ed.). SAGE.
- Creswell, J. W. & Poth, C. N. (2016). *Qualitative Inquiry & Research Design*. Sage.
- Czeisler, M. E., Lane, R. I., Petrosky, E., Wiley, J. F., Christensen, A., Njai, R., Weaver, M. D., Robbins, R., Facer-Childs, E. R., Barger, L. K., Czeisler, C. A., Howard, M. E., & Rajaratnam, S. M. W. (2020, August 14). Mental health, substance abuse, and suicidal ideation during the COVID-19 pandemic- United States, June 24-30, 2020. *CDC Morbidity and Mortality Weekly Report*, 69(32), 1049-1057.

- Dallo, F. (2018). Predictors of self-rated health among undergraduate college students in the United States. *College Student Journal*, 431-440.
- Davies, E. B., Morriss, R., & Glazebrook, C. (2014). Computer-delivered and web-based interventions to improve depression, anxiety, and psychological well-being of university students: A systematic review and meta-analysis. *Journal of Medical Internet Research*, 16(5), 1-22.
- De Weger, E., Macinnes, D., Enser, J., Francis, S. J., & Jones, F. W. (2013). Implementing video conferencing in mental health practice. *Journal of Psychiatric and Mental HealthNursing*, 20, 448-454.
- Donker, T., Petrie, K., Proudfoot, J., Clarke, J., Birth, M-R., & Christensen, H. (2013). Smartphones for smarter delivery of mental health programs: A systematic review. *Journal of Medical Internet Research*, 15(11), 1-13).
- D'Orio, W. (2019, December 2). *Why colleges are looking online for mental health care*. Education Dive. <https://www.educationdive.com/news/why-colleges-are-looking-online-for-mental-health-care/568294/>
- Dubner, S. & Duckworth, A. (Hosts). (2020, October 11). Why do we buy things we'll never use? (Episode 22) [Audio podcast episode]. In *No Stupid Questions*. Freakonomics Radio.
- Duffy, M. E., Twenge, J. M., & Joiner, T. E. (in press). Trends in mood and anxiety symptoms and suicide-related outcomes among U.S. undergraduates, 2007-2018: Evidence from two national surveys. *Journal of Adolescent Health*, 1-9.
- Dunbar, M. S., Sontag-Padilla, L., Kase, C. A., Seelam, R. & Stein, B. D. (2018). Unmet mental health treatment need and attitudes toward online mental health services among community college students. *Psychiatric Services*, 69(5), 597-600.

- Eisenberg, D., Hunt, J., Speer, N., & Zivin, K. (2011). Mental health service utilization among college students in the United States. *The Journal of Nervous and Mental Disease*, 199(5), 301-308.
- English, I. & Campbell, D. G. (2019). Prevalence and characteristics of universal depression screening in U.S. college health centers. *Families, Systems, & Health*, 37(2), 131-149.
- Farrer, L., Gulliver, A., Chan, J. K. Y., Batterham, P. J., Reynolds, J., Calear, A., Tait, R., Bennett, K., & Griffiths, K. M. (2013). Technology-based interventions for mental health in tertiary students: Systematic review. *Journal of Medical Internet Research*, 15(5), e101.
- Federation of State Medical Boards. (2020, October 6). *U.S. States and territories modifying requirements for telehealth in response to COVID-19*.
<https://www.fsmb.org/siteassets/advocacy/pdf/states-waiving-licensure-requirements-for-telehealth-in-response-to-covid-19.pdf>
SAGE Publications.
- Folk, J. B., Schiel, M. A., Oblath, R., Feuer, V., Sharma, A., Khan, S., Doan, B., Kulkarni, C., Ramtekkar, U., Hawks, J., Fornari, V., Fortuna, L. R., & Myers, K. (2022). The transition of academic mental health clinics to telehealth during the COVID-19 pandemic. *Journal of the American Academy of Child & Adolescent Psychiatry*, 61(2), 277-290.
- Fricker, R. D. (2008). Sampling methods for web and e-mail surveys. In Fielding, N., Lee, R. M., & Blake, G. (Eds.), *The SAGE handbook of online research methods*. (pp. 195-217). SAGE Publications.
- Fruehwirth, J. C., Biswas, S., & Perreira, K. M. (2021). The Covid-19 pandemic and mental health of first-year college students: Examining the effect of Covid-19 stressors using longitudinal data. *Plos One*, 1-15.

- Galvin, G. (2020, May 7). *Expanded telehealth has provided a boost for rural America: Will it last?* U.S. News & World Report. <https://www.usnews.com/news/healthiest-communities/articles/2020-05-07/telehealth-a-boost-for-rural-america-during-coronavirus-pandemic>
- Gentry, M., Puspitasari, A. J., McKean, A. J., Williams, M. D., Breiting, S., Geske, J. R., Clark, M. M., Moore, K. M., Frye, M. A., & Hilty, D. M. (2021). Clinician satisfaction with rapid adoption and implementation of telehealth services during the COVID-19 pandemic. *Telemedicine and e-Health*, 27(12), 1385-1392).
- Gibbons, S., Trette-McLean, T., Crandall, A., Bingham, J. L., Garn, C. L., & Cox, J. C. (2019). Undergraduate students survey their peers on mental health: Perspectives and strategies for improving college counseling center outreach. *Journal of American College Health*, 67(6), 580-591.
- Gorman, K. S., Bruns, C., Chin, C., Fitzpatrick, N. Y., Koenig, L., LeViness, P., & Sokolowski, K. (2021). Association for University and College Counseling Center Directors (AUCCCD) Annual Survey: 2020. Retrieved from <https://www.aucccd.org/assets/documents/Survey/2019-2020%20Annual%20Report%20FINAL%204-2021.pdf>
- Gorman, K. S., Bruns, C., Chin, C., Fitzpatrick, N. Y., Koenig, L., LeViness, P., & Sokolowski, K. (2022). Association for University and College Counseling Center Directors (AUCCCD) Annual Survey: 2021. Retrieved from <https://taucccd.memberclicks.net/assets/2020-21%20Annual%20Survey%20Report%20Public%20Survey.pdf>
- Greenberger, E., Lessard, J., Chen, C., & Farruggia, S. (2008). Self-entitled college students: Contributions of personality, parenting, and motivational factors. *Journal of Youth &*

- Adolescence*, 37, 1193-1204.
- Griffin, R. (2015, July 21). *Social media is changing how college students deal with mental health, for better or worse*. Huffington Post. https://www.huffpost.com/entry/social-media-college-mental-health_n_55ae6649e4b08f57d5d28845
- Grist, R. & Cavanagh, K. (2013). Computerised cognitive behavioural therapy for common mental health disorders, what works, and for whom under what circumstances? A systematic review and meta-analysis. *Journal of Contemporary Psychotherapy*, 43, 243-251.
- Gupta, A., Nguyen, A. M., Chang, J. E., Lai, A. Y., Berry, C. & Shelley, D. R. (2020, September 9). Five ways- beyond current policy- to truly integrate telehealth into primary care practices. *Health Affairs Blog*. Retrieved from https://www.healthaffairs.org/doi/10.1377/hblog20200903.597561/full/?utm_medium=email&utm_source=hat&utm_campaign=blog&utm_content=gupta&.
- Hadler, N. L., Bu, P., Winkler, A., & Alexander, A. W. (2021). College student perspectives of telemental health: A review of the recent literature. *Current Psychiatry Reports*, 23(6), 1-8.
- Hamza, C. A., Ewing, L., Heath, N. L., & Goldstein, A. L. (2020). When social isolation is nothing new: A longitudinal study on psychological distress during COVID-19 among university students with and without preexisting mental health concerns. *Canadian Psychology*, 61(1), 20-30.
- Harrer, M., Adam, S. H., Fleischmann, R. J., Baumeister, H., Auerbach, R., Bruffaerts, R., Cuijpers, P., Kessler, R. C., Berking, M., Lehr, D., & Ebert, D. D. (2018). Effectiveness of an internet- and app-based intervention for college students with elevated stress: Randomized controlled trial. *Journal of Medical Internet Research*, 20(4), 1-16.

- Haque, S. N. (2021). Telehealth beyond COVID-19. *Psychiatric Services*, 72, 100-103.
- Healthy Minds Network. (2020a). *The Healthy Minds Study*. [Fall 2020 National Data report]. Retrieved from <https://healthymindsnetwork.org/wp-content/uploads/2021/02/HMS-Fall-2020-National-Data-Report.pdf>
- Healthy Minds Network. (2020b). *The Healthy Minds Study*. [Winter/Spring 2020 National Data report]. Retrieved from https://healthymindsnetwork.org/wp-content/uploads/2020/08/w2020_HMS_national_Final.pdf
- Healthy Minds Network. (2021). *The Healthy Minds Study*. [Winter/Spring 2021 National Data report]. Retrieved from https://healthymindsnetwork.org/wp-content/uploads/2022/01/HMS_nationalwinter2021_-update1.5.21.pdf
- Healthy Minds Network & American College Health Association (2020). *The impact of COVID-19 on college student well-being*. [Data report]. Retrieved from https://www.acha.org/documents/ncha/Healthy_Minds_NCHA_COVID_Survey_Report_FINAL.pdf
- Higher Education Mental Health Alliance. (2019). *College counseling from a distance: Deciding whether and when to engage in telemental health services*. Retrieved from: http://hemha.org/wp-content/uploads/2019/01/HEMHA-Distance-Counseling_FINAL2019.pdf
- Hilty, D. M., Ferrer, D. C., Parish, M. B., Johnston, B., Callahan, E. J., & Yellowlees, P. M. (2013). The effectiveness of telemental health: A 2013 review. *Telemedicine and e-Health*, 19(6), 444-454.
- Hussain, S. T., Lei, S., Akram, T., Haider, M. J., Hussain, S. H., & Ali, M. (2016). Kurt Lewin's process model for organizational change: The role of leadership and employee involvement: A critical review. *Journal of Innovation & Knowledge*, 3(3), 123-127.
- International Accreditation of Counseling Services (2016). *IACS standards for the university and*

- college counseling services*. <http://iacsinc.org/iacs-standards/>
- Janis, R. (2020, September 8). *COVID impact on college student mental health*. Center for Collegiate Mental Health.
https://ccmh.psu.edu/index.php?option=com_dailyplanetblog&view=entry&year=2020&month=09&day=07&id=1:covid-impact-on-college-student-mental-health
- Jed Foundation. (2020, October 22). Survey of college student mental health in 2020. Retrieved from <https://www.jedfoundation.org/news-views/survey-of-college-student-mental-health-in-2020/>
- Johnson, K. F. & Reh fuss, M. (2020). Telehealth interprofessional education: Benefits, desires, and concerns of counselor trainees. *Journal of Creativity in Mental Health*, 1-16.
- Jones, P. J., Park, S. Y., & Lefevor, G. T. (2018). Contemporary college student anxiety: The role of academic distress, financial stress, and support. *Journal of College Counseling*, 21, 252-264.
- Kezar, A., Holcombe, E., & Kitchen, J. (2018). *Scaling change in higher education: A guide for external stakeholder groups*. Association of American Universities: Washington, DC.
- Kitzrow, M. A. (2003). The mental health needs of today's college students: Challenges and recommendations. *NASPA Journal*, 41(1), 167-181.
- Kozlowski, K. A. & Holmes, C. M. (2014). Experiences in online process groups: A qualitative study. *Journal for Specialists in Group Work*, 39(4), 276-300.
- Kwai, I. (2016, October 19). The most popular office on campus. The Atlantic.
<https://www.theatlantic.com/education/archive/2016/10/the-most-popular-office-on-campus/504701/>
- Lattie, E. G., Lipson, S. K., & Eisenberg, D. (2019). Technology and college student mental

- health: Challenges and opportunities. *Frontiers in Psychiatry*, 10(246), 1-5.
- Lau, E. S., Hayes, S. N., Volgman, A. S., Lindley, K., Pepine, C. J., & Wood, M. J. (2021). Does patient-physician gender concordance influence patient perceptions or outcomes? *Journal of the American College of Cardiology*, 77(8), 1135-1138.
- Lederer, A. M., Hoban, M. T., Lipson, S. K., Zhou, S., & Eisenberg, D. (2021). More than inconvenienced: The unique needs of U.S. college students during the COVID-19 pandemic. *Health Education & Behavior*, 48(1), 14-19.
- Lee, R. A., & Jung, M. E. (2018). Evaluation of an mHealth app (DeStressify) on university students' mental health: Pilot trial. *Journal of Medical Internet Research*, 5(1), 1-16.
- LeViness, P., Gorman, K., Braun, L., Koenig, L., & Bershad, C. (2020). *The Association for University and College Counseling Center Directors Annual Survey: 2019*. Richmond, VA: AUCCCD.
- Lewin, K. (1947). *Field theory in social science*. Harper & Row.
- Lipson, S. K., Gaddis, M., Heinze, J., Beck, K., & Eisenberg, D. (2015). Variations in student mental health and treatment utilization across US colleges and universities. *Journal of American College Health*, 63(6), 388-396.
- Lipson, S. K., Lattie, E. G. & Eisenberg, D. (2019). Increased rates of mental health service utilization by U.S. college students: 10-year population-level trends (2007-2017). *Psychiatric Services*, 70(1), 60-63.
- Liu, J. H. L., Marcus, D. K., & Barry, C. T. (2017). Evidence-based apps? A review of mental health mobile applications in a psychotherapy context. *Professional Psychology: Research and Practice*, 1-12.
- Lukianoff, G. & Haidt, J. (2018). *The coddling of the American mind: How good intentions and bad ideas are setting up a generation for failure*. Penguin Books.
- Ma, A., Sanchez, A., & Ma, M. (2019). The impact of patient-provider race/ethnicity

- concordance on provider visits: Updated evidence from the medical expenditure panel survey. *Journal of Racial and Ethnic Health Disparities*, 6(5), 1011-1020.
- Maurya, R. K., Bruce, M. A., & Therthani, S. (2020). Counselors' perceptions of distance counseling: A national survey. *Journal of Asia Pacific Counseling*, 10(2), 1-22.
- Mazza, C., Ricci, E., Biondi, S., Colasanti, M., Ferracuti, S., Napoli, C., & Roma, P. (2020). A nationwide survey of psychological distress among Italian people during the COVID-19 pandemic: Immediate psychological responses and associated factors. *International Journal of Environmental Research and Public Health*, 17, 1-14.
- Mental Health America (MHA) (2015). *Parity or disparity: The state of mental health in America 2015*. [Executive summary]. Alexandria, Virginia: Mental Health America.
- Mental Health America (MHA) (2020). *Spotlight 2021: COVID-19 and mental health: A growing crisis*. [Executive summary]. Alexandria, Virginia: Mental Health America.
- Mental Health America (MHA) (2020). *The state of mental health in America 2020*. Alexandria, Virginia: Mental Health America.
- Mental Health America (MHA) (2021). *The state of mental health in America 2021*. Alexandria, Virginia: Mental Health America.
- Mental Health America (MHA) (2022). *The state of mental health in America 2022*. Alexandria, Virginia: Mental Health America.
- Mental health professional demographics and statistics in the US* (n.d.). Zippia. Retrieved from <https://www.zippia.com/mental-health-professional-jobs/demographics/>
- Mertens, D. (1998). *Research methods in education and psychology: Integrating diversity with quantitative and qualitative approaches*. (3rd ed.). Sage.
- Mills, D. (2016, August 25). *Mental health problems for college students are increasing*. Healthline. <https://www.healthline.com/health-news/mental-health->

problems-for-college-students-are-increasing-071715

Mitchell, S. L. (2020, March 14). *Statement on telemental health during the coronavirus crisis.*

Association for University and College Counseling Center Directors.

<https://www.aucccd.org/assets/documents/Governance/AUCCCD%20Statement%20on%20Telemental%20Health.pdf>

National Council on Disability (2017). *Mental health on college campuses: Investments,*

accommodations needed to address student needs. Retrieved from

<https://ncd.gov/publications/2017/mental-health-college-campus-investments-accommodations-needed-address-student>

Nguyen, M., Waller, M., Pandya, A., & Portnoy, J. (2020). A review of patient and provider satisfaction with telemedicine. *Current Allergy and Asthma Reports*, 20(72), 1-7.

Nobleza, D., Hagenbaugh, J., Blue, S., Stepchin, A., Vergare, M. & Pohl, C. A. (2019). The use of telehealth by medical and other health professional students at a college counseling center. *Journal of College Student Psychotherapy*, 33(4), 275-289.

Orlovic, A., Alvarado, M., Nash, S., Lawrence, A., & Escoto, E. (2021). Analysis of demand changes in a university counseling center telehealth system. *Journal of Undergraduate Research*, 23, 1-17.

Ortiz, A. & Levine, M. (2021). Operating a university counseling and school psychology training clinic in a global pandemic. *Contemporary School Psychology*, 1-15.

Oswalt, S. B., Lederer, A. M. & Chestnut-Steich, K. (2019). Who is willing to come back? College students' willingness to seek help after using campus mental health services. *Journal of American College Health*, 67(1), 10-16.

Parker, M. M. & Dickson, S. (2020). Student wellness: Exploring personality priorities and perceived wellness among university students. *The Journal of Individual Psychology*,

- 76(3), 245-257.
- Perry, K., Gold, S., & Shearer, E. M. (2020). Identifying and addressing mental health providers' perceived barriers to clinical video telehealth utilization. *Journal of Clinical Psychology*, 76, 1125-1134.
- Ponto, J. (2015). Understanding and evaluating survey research. *Journal of the Advanced Practitioner in Oncology*, 6(2), 168-171.
- Preston, C. C. & Colman, A. M. (2000). Optimal number of response categories in rating scales: Reliability, validity, discriminating power, and respondent preferences. *Acta Psychologica*, 104(1), 1-15.
- PSYPACT. (2022). *Legislative resources: PSYPACT map/states*. Retrieved from <https://psypact.site-ym.com/page/psypactmap>
- Queirós, A., Faria, D., & Almeida, F. (2017). Strengths and limitations of qualitative and quantitative research methods. *European Journal of Education Studies*, 3(9), 369-386.
- Quinlan, P., Smith, R., Feldpausch, N., & White, L. (2021). Lessons learned in the implementation of remote telehealth care in college psychiatry. *Academic Psychiatry*, 45, 658-659.
- Rajkumar, R. P. (2020). COVID-19 and mental health: A review of the existing literature. *Asian Journal of Psychiatry*, 52, 1-5.
- Rasmussen, E. E., Punyanunt-Carter, N., LaFreniere, J. R., Norman, M. S., & Kimball, T. G. (2020). The serially mediated relationship between emerging adults' social media use and mental well-being. *Computers in Human Behavior*, 102, 206-213.
- Robeznieks, A. (2020, June 30). *How to maintain momentum on telehealth after COVID-19 crisis ends*. American Medical Association. <https://www.ama->

assn.org/practice-management/digital/how-maintain-momentum-telehealth-after-covid-19-crisis-ends/

Rochlen, A. B., Zack, J. S., & Speyer, C. (2004). Online therapy: Review of relevant definitions, debates, and current empirical support. *Journal of Clinical Psychology*, 60(3), 269-283.

Rogers, E. M. (2003). *Diffusion of Innovations* (5th ed.) Free Press.

Ryan, M. L., Stochet, I. M. & Stallman, H. M. (2010). Universal online interventions might engage psychologically distressed university students who are unlikely to seek formal help. *Advances in Mental Health*, 9(1), 73-83.

Sahu, P. (2020). Closure of universities due to coronavirus disease 2019 (COVID-19): Impact on education and mental health of students and academic staff. *Cureus*, 12, e7541.

Saide, A. & McCaffree, K. (2019). Coddling untruths. *Skeptic*, 24(1), 51-54.

Shachar, C., Engel, J., & Elwyn, G. (2020). Implications for telehealth in a postpandemic future: Regulatory and privacy issues. *Journal of the American Medical Association*, 323(23), 2375-2376.

Shuja, K. H., Aqeel, M., Jaffar, A. & Ahmed, A. (2020). COVID-19 pandemic and impending global mental health implications. *Psychiatry Danubina*, 32(1), 32-35.

Simms, D. C., Gibson, K., & O'Donnell, S. (2011). To use or not to use: Clinicians' perceptions of telemental health. *Canadian Psychology*, 52(1), 41-51.

Spek, V., Cuijpers, P., Nyklicek, I., & Riper, H. (2007). Internet-based cognitive behaviour therapy for symptoms of depression and anxiety: A meta-analysis. *Psychological Medicine*, 37(3), 319-228.

Substance Abuse and Mental Health Services Administration. (2020). Key substance use and mental health indicators in the United States: Results from the 2019 National Survey on

- Drug Use and Health (HHS Publication No. PEP20-07-01-001). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from <https://www.samhsa.gov/data/sites/default/files/reports/rpt29393/2019NSDUHFFRPDFWHTML/2019NSDUHFFR1PDFW090120.pdf>
- Substance Abuse and Mental Health Services Administration (2021). Results from the 2020 national survey on drug use and health: Graphics from the key findings report. Retrieved from <https://www.samhsa.gov/data/sites/default/files/reports/rpt35325/2020NSDUHFFRSlides090821.pdf>
- Takeshita, J., Wang, S., Loren, A. W., Mitra, N., Shults, J., Shin, D. B., & Sawinski, D. L. (2020). *JAMA Network Open*, 3(11), 1-13.
- Tandoc, E. C., Ferrucci, P. & Duffy, M. (2015). Facebook use, envy, and depression among college students: Is Facebooking depressing? *Computers in Human Behavior*, 43, 139-146.
- Traube, D. E., Cederbaum, J. A., Taylor, A., Naish, L., & Rau, A. (2020). Telehealth training and provider experience of delivering behavioral health services. *Journal of Behavioral Health Services & Research*, 1-10.
- Travers, M. F. & Benton, S. A. (2014). The acceptability of therapist-assisted, internet-delivered treatment for college students. *Journal of College Student Psychotherapy*, 28, 35-46.
- Twenge, J. (2017). *iGen: Why today's super-connected kids are growing up less rebellious, more tolerant, less happy- and completely unprepared for adulthood- and what that means for the rest of us*. Atria Books.
- Twenge, J. M., Joiner, T. E., Rogers, M. L., & Martin, G. N. (2018). Increases in depressive symptoms, suicide-related outcomes, and suicide rates among U.S. adolescents after 2010

- and links to increased new media screen time. *Clinical Psychological Science*, 6, 3–17.
- U.S. Census Bureau. (2021). Household pulse survey, 2020-2021. Retrieved from <https://www.cdc.gov/nchs/covid19/pulse/mental-health.htm>.
- Vasan, N. (Guest). (2020, July 2). Experts on expert with Dax Shepard [Audio podcast episode]. Armchair Umbrella.
- Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health*, 17, 1-25.
- Williams, A. LaRocca, R., Chang, T., Trinh, N-H., Fava, M., Kvedar, J., & Yeung, A. (2014). Web-based depression screening and psychiatric consultation for college students: A feasibility and acceptability study. *International Journal of Telemedicine and Applications*, 1-9.
- Winkelmann, Z. K., Eberman, L. E., & Games, K. E. (2020). Telemedicine experiences of athletic trainers and orthopaedic physicians for patients with musculoskeletal conditions. *Journal of Athletic Training*, 55(8), 768-779.
- Wootton, A. R., McCuistian, C., Legnitto Packard, D. A., Gruber, V. A., & Saberi, P. (2020). Overcoming technological challenges: Lessons learned from a telehealth counseling study. *Telemedicine and E-Health*, 26(10), 1278-1283.
- Xiao, H., Carney, D. M., Youn, S. J., Janis, R. A., Castonguay, L. G., Hayes, J. A. & Locke, B. D. (2017). Are we in crisis? National mental health and treatment trends in college counseling centers. *Psychological Services*, 14(4), 407-415.
- Zhu, D., Paige, S. R., Slone, H., Gutierrez, A., Lutzky, C., Hedriana, H., Barrera, J. F., Ong, T>

- & Bunnell, B. E. (2021). Exploring telemental health practice before, during and after the COVID-19 pandemic. *Journal of Telemedicine and Telecare*, 1-7.
- Zimmerman, M., Bledsoe, C., & Papa, A. (2021). Initial impact of the COVID-19 pandemic on college student mental health: A longitudinal examination of risk and protective factors. *Psychiatry Research*, 305, 1-9.
- Zivin, K., Eisenberg, D., Gollust, S. E. & Golberstein, E. (2009). Persistence of mental health problems and needs in a college student population. *Journal of Affective Disorders*, 117, 180-185.

Appendix A: Cover Letter

Dear AUCCCD Community,

We are interested in examining the use of telemental health (TMH) services at institutions of higher education. As many institutions were forced to send students home in the spring of 2020 due to COVID-19, we know many centers had to quickly develop TMH systems to continue to serve students. Additionally, it is documented that more students are presenting with mental health struggles in the current global climate. We understand that many counseling centers were already under-resourced to meet their demand, and have had to develop new and innovative ways to serve students in crisis and proactively promote positive mental health practices.

Our goal is to determine what model, if any, institutions are currently implementing to offer TMH. If you are not currently offering TMH services, we would greatly appreciate it if you would still complete the survey to offer your institution's demographic information, and any reasons for not offering TMH.

Survey Link: https://pacificu.co1.qualtrics.com/jfe/form/SV_cNoIvEnB3HWf93f

This survey is voluntary and will take approximately 10 minutes to complete. Thank you for your time!

Sincerely,

Erin Edwards
Ph.D. Candidate, Pacific University
edwa7791@pacificu.edu

This study was reviewed and approved by the Institutional Review Board (IRB) of Pacific University.

Appendix B: Implied Consent

Evaluating Use of Telemental Health by Campus Counseling Centers during COVID-19

Research Team Contacts:

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Thank you for your interest in participating in this research study. The purpose of the project is to collect information about the use of telehealth by campus counseling centers during COVID-19. You have been invited to complete this survey because you are listed as a member of the Association for University and College Counseling Center Directors (AUCCCD). The survey will take about 10 minutes to complete and consists of questions about your institution's demographics, telehealth offerings, and reflections on the use of telehealth moving forward.

Do read this material very carefully to be sure you understand the nature of the project. If questions remain, or you later have concerns about any aspect of the project or your treatment, you may contact any of the investigators or the Pacific University Office of Scholarship and Sponsored Projects (OSSP). If you do initiate such contact(s), some degree of anonymity will likely be lost; however, your privacy will be protected by strict adherence to rigorous confidentiality practices. We advise you print a copy of this information for your records.

Do you meet the eligibility requirements? To be eligible you must meet all of the following criteria. If even one item does not apply to you, we ask that you not

take the survey. You are eligible to complete this survey if you are a member of AUCCCD with a currently active counseling center that provides counseling services to students per the state mental health laws and professional ethical guidelines. You must be familiar with the operations of your institution and counseling center including the current method of instruction, percentage of students using the counseling center in a given year, current telehealth practices, and challenges faced by counseling center professionals. You are eligible, and encouraged to, complete this survey even if your center does not offer telehealth. You must be over the age of 18 and have proficiency in English to complete this survey.

How will your responses be kept private? An anonymous methodology is being used. This means we are collecting no information about your identity; we will not know who responded and there is no way to link answers to identities. However, we cannot guarantee the privacy of data transmitted via the internet. The survey has been built using Qualtrics. Only the investigator(s) are the formal owners of the survey account, but all gathered information is available to any person who gains account access. The survey will remain open for 45 days. Once the survey is closed, all data will be transferred to a secure University server and the Qualtrics account will be deactivated. It is important for you to know that all responses you provide will be included in the project's database and may be included in the analysis, even if you do withdraw from the survey.

Are there risks to taking the survey? The study has been reviewed and approved by the Pacific University human subject research ethics committee. Any potential risks (e.g., emotional, financial, social, legal) due to participating are minimal, no greater than what one faces in normal daily living activities. One way to avoid potential risk is that you are free not to answer any question, and you may withdraw at any time simply by closing your browser or navigating away from the survey. If you do skip questions, we will use the responses you did provide. However, once you submit your survey, withdrawing is impossible due to the anonymous methodology.

Are there benefits to taking the survey? There is no benefit, payment or reward to be gained by participating. Except for your time, there are no additional costs. It is important to understand you are receiving no services of any sort from Pacific University as a result your participation in this study. Any past, current or future relationships you may have with Pacific University or with AUCCCD will not be affected in any way as a consequence of your choosing whether or not to participate.

Informed Consent. Starting the survey indicates that you understand the nature of your participation and that you freely and voluntarily grant your consent. Again, it is important for you to know that all responses you provide will be

included in the project's database and may be included in the analysis, even if you do withdraw from the survey before completion. We advise you print this screen for your records.

Appendix C: Survey of Counseling Center Directors

How many enrolled students are eligible for services at your counseling center as of Fall of 2020?

- 1,500 or less (1)

- 1,501-2,500 (2)
 - 2,501-5,000 (3)
 - 5,001-7,500 (4)
 - 7,501-10,000 (5)
 - 10,001-15,000 (6)
 - 15,001-20,000 (7)
 - 20,001-30,000 (8)
 - 30,001-35,000 (9)
 - 35,001-45,000 (10)
 - 45,001 and over (11)
-

Is your institution located

- Within the United States (1)
 - Outside of the United States (2)
-

Display This Question:

If Is your institution located = Within the United States

In which state is your institution located?

▼ Alabama (1) ... I do not reside in the United States (53)

Display This Question:

If Is your institution located = Outside of the United States

In what country is your institution located?

Page Break-

How many full-time equivalent (FTE) counselors are on staff at your counseling center?

How many full-time equivalent (FTE) graduate trainee clinicians, paid or unpaid, are on staff at your counseling center?

Page Break-

During the **2020-2021** academic year, what percentage of the student body used any type of clinical service at the counseling center? (Including triage, crisis, individual, couples, group, and psychiatric services)

0 10 20 30 40 50 60 70 80 90 100

Click to write Choice 1 ()



During the 2019-2020 academic year, what percentage of the student body used any type of clinical service at the counseling center? (Including triage, crisis, individual, couples, group, and psychiatric services)

0 10 20 30 40 50 60 70 80 90 100

Click to write Choice 1 ()



During the 2018-2019 academic year, what percentage of the student body used any type of clinical service at the counseling center? (Including triage, crisis, individual, couples, group, and psychiatric services)

0 10 20 30 40 50 60 70 80 90 100

Click to write Choice 1 ()



Page Break-

For the **Fall 2020** semester, how was instruction offered by your institution?

- In-person (1)
- Virtually (2)
- Combination (3)

For the **Spring 2021** semester, how was instruction offered by your institution?

- In-person (1)
- Virtually (2)
- Combination (3)

Page Break-

The Higher Education Mental Health Alliance (HEMHA) defines telemental health (TMH) as distance counseling via video, text, email, phone, or chat tools that is delivered synchronously or asynchronously (2019). Did you offer a telehealth option at your counseling center at any point during the **2020-2021** academic year?

- Yes (1)
- No (2)

Skip To: QID46 If The Higher Education Mental Health Alliance (HEMHA) defines telemental health (TMH) as distance c... = Yes

Skip To: QID23 If The Higher Education Mental Health Alliance (HEMHA) defines telemental health (TMH) as distance c... = No

Did you offer telehealth in any form prior to the COVID-19 pandemic?

- Yes (21)
- No (22)

Skip To: QID13 If Did you offer telehealth in any form prior to the COVID-19 pandemic? = No

Display This Question:

If Did you offer telehealth in any form prior to the COVID-19 pandemic? = Yes

During what semester did you begin using telehealth? (i.e. Fall 2018)

Display This Question:

If Did you offer telehealth in any form prior to the COVID-19 pandemic? = Yes

In what way(s), if any, has your telehealth offering changed since the COVID-19 pandemic? (i.e. percentage of students utilizing telehealth, types/modes of telehealth offered, percentage of staff trained, staff comfort level/perception of its efficacy)

What telehealth options are available to students? (Check all that apply)

- Phone calls with counselor (1)
- Video calls with counselor (2)
- Texting/messaging synchronously with counselor (3)
- Email/messaging asynchronously with counselor (4)
- Use of an outside service (i.e. TalkSpace), funded by institution (5)
- Recommendation for outside service (i.e. TalkSpace), not funded by institution (6)

Display This Question:

If What telehealth options are available to students? (Check all that apply) = Use of an outside service (i.e. TalkSpace), funded by institution

Or What telehealth options are available to students? (Check all that apply) = Recommendation for outside service (i.e. TalkSpace), not funded by institution

What outside service are you using/recommending?

Display This Question:

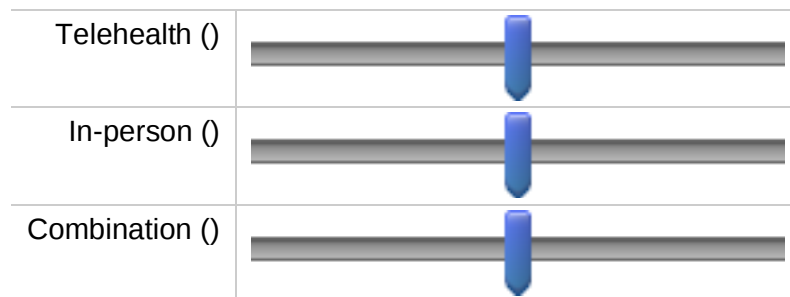
If What telehealth options are available to students? (Check all that apply) = Use of an outside service (i.e. TalkSpace), funded by institution

What is the annual total cost of the outside service to the institution?

Page Break-

During the **2020-2021** academic year, approximately what percentage of counseling center clients used each type of service?

0 10 20 30 40 50 60 70 80 90 100



Page Break-

During the **2020-2021** academic year, did any counseling center staff attempt to offer any counseling services to students located out of state?

- Yes (3)
- No (5)
- Not applicable (4)

Skip To: QID33 If During the 2020-2021 academic year, did any counseling center staff attempt to offer any counseli... = No

Skip To: QID32 If During the 2020-2021 academic year, did any counseling center staff attempt to offer any counseli... = Yes

Skip To: QID29 If During the 2020-2021 academic year, did any counseling center staff attempt to offer any counseli... = Not applicable

Display This Question:

If During the 2020-2021 academic year, did any counseling center staff attempt to offer any counseli... = Yes

Did any counseling center staff apply for licenses (including temporary licenses) in other states? Check all that apply.

- Psychologist (1)
- Licensed professional counselor (2)
- Licensed clinical social worker (3)
- Licensed marriage and family therapist (4)
- Physician (5)

Display This Question:

If During the 2020-2021 academic year, did any counseling center staff attempt to offer any counseli... = Yes

What services were able to be offered across any state lines? Check all that apply.

- Individual counseling (1)
- Group counseling (2)
- Triage appointments (3)
- Crisis appointments (4)
- Psychiatric services (5)
- Couples counseling (6)

Display This Question:

If During the 2020-2021 academic year, did any counseling center staff attempt to offer any counseli... = Yes

Is there anything you would like to share regarding provision of remote services to students residing out of state?

Display This Question:

If The Higher Education Mental Health Alliance (HEMHA) defines telemental health (TMH) as distance c... = No

Please rank the reasons, if any, for not offering telehealth at your institution.

- ☐ Cost (1)
- ☐ Lack of staff to support (2)
- ☐ Privacy concerns (3)
- ☐ Insurance/Licensure restrictions (6)
- ☐ No need (4)
- ☐ Other (5)

Page Break-

What is your comfort level with using telehealth? (1 being Very Uncomfortable, 7 being Very Comfortable)

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 (7)

What is your perception of the overall level of efficacy of telehealth? (1 being Very Ineffective, 7 Being As Effective as In-Person Services)

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 (7)

Page Break-

Please rank the challenges, if any, to offering telehealth at your institution.

- ☐ Cost (1)
- ☐ Lack of staff to support (2)
- ☐ Privacy concerns (3)

- _____ Technology (4)
- _____ Insurance barriers (7)
- _____ Licensure barriers (8)
- _____ Other (5)
- _____ None (6)

Is there anything significant you learned or want us know about telehealth services that you experienced during the pandemic?

Page Break-

When students return to campus and in-person instruction resumes fully, what is the likelihood that your center will continue offering some form of telehealth? (1 being Very Unlikely, 7 being Very Likely)

- 1 (43)
- 2 (44)
- 3 (45)
- 4 (46)
- 5 (47)
- 6 (48)
- 7 (49)

If you are likely to continue use of telehealth in some form, what would that look like for your center? (i.e. certain methods of telehealth, use of telehealth for some diagnoses or types of therapy, percentage of staff trained in telehealth offerings, use of an outside service)

Appendix D: Survey Follow-Up

Dear AUCCCD Community,

Two weeks ago you received a link to a survey regarding use of telemental health (TMH) practices at your institution. We are very interested in learning more about your counseling center's practices during the height of the pandemic, as well as your future plans moving forward with regards to continuation of remote services.

This survey is voluntary and will take approximately 10 minutes to complete. Thank you for your time!

Survey Link: https://pacificu.co1.qualtrics.com/jfe/form/SV_cNoIvEnB3HWf93f

Sincerely,
Erin Edwards
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This study was reviewed and approved by the Institutional Review Board (IRB) of Pacific University.