THE WESTLUND CENTER

DEPARTMENT OF SOCIAL WORK

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

SECOND REPORT

Tele-Mental Health and Research Service Model

1/24-7/24

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Abstract

The COVID-19 Pandemic caused significant disruptions in the delivery of mental health services to the Greater Northridge Community, forcing changes that had been on the horizon now ushered into full view. The Westlund Center (TWC) viewed this disruption as a unique service opportunity, proposing an interdisciplinary clinical collaboration with the Department of Social Work and the College of Social and Behavioral Sciences (CSBS) at California State University Northridge (CSUN), utilizing a Telemental Health (TMH) platform staffed by graduate-level clinical interns from social work, psychology, and nursing. Sixteen issues have been identified for the successful implementation of such a program, six of which are presented in this report-the remaining issues to be addressed in the 2024-2025 academic year.

Keywords

mental health, interdisciplinary, TMH, populations, privacy

Introduction

In our First Report released on 12/31/2023, and in keeping with our mission statement, *"...an innovative Mental Health program to vulnerable members of the Greater Northridge Community." (thewestlundcenter.org.), we* identified the direction of our future research. We declared we would focus on Telemental Health (TMH) as a potential mental health service program for the Northridge community. This Second Report continues that directional investigation, highlighting the promising potential of TMH to transform mental health services to vulnerable members of our community.

Like an invisible, all-pervasive fog, the COVID-19 pandemic began sweeping the world in 2019, killing more than 3 million people worldwide, including one million in the United States. On March 11, 2020, the World Health Organization characterized the outbreak as a pandemic, significantly altering the delivery of mental health care services. This underscored the urgent need for alternative service delivery methods giving rise to telemental health (TMH) programs.

Face-to-face mental health services, a pillar of our profession since Freud's time, were challenged by the COVID-19 pandemic. The world's population was urged to limit their mobility and in the process closing mental health service facilities. Mental health professionals were forced to close up shop, so to speak, leaving patients in the dark about how or when they would be able to reestablish contact with their counselor.

In response, the mental health community showed remarkable resilience, swiftly adopting telemental health as the go-to service delivery method, starting with telepsychiatry and quickly expanding to other helping professions. Consequently, in 2022, about 56 million adults in the United States received telemental health services, including inpatient or outpatient therapy (Lucas & Villarroel, 2022).

The term telepsychiatry was coined in 1973 and defined as" ...interaction between mental health providers and their patients via a two-way television system…" (Kuriakose, 2019, p. 1).

Teledoc, Telepsychiatry, Telepsychology, Telemental health, Telebehavioral health, Video Telehealth, Teletherapy, and similar headings embrace the concept of a mental health service offered through telecommunications. This report will focus on the video components of TMH as our acronym of usage.

Historical Highlights

Telemedicine

The earliest history of distance communications among humans is traceable to methods such as torches, smoke, mirrors, and other visual and reflective materials; auditory devices such as drums, tubers, bird, and animal-like sounds; and vocal and musical instruments—almost any way to send information across distances recognized by humans as conveying a message.

Recently, Mullick et al. (2020) wrote: "*... remote care has existed from the Roman and pre-Hippocratic periods in antiquity. The elderly and infirm who could*

not visit temples for medical care sent representatives to convey information on symptoms and bring home a diagnosis as well as treatment." (p. 40)

In Africa and with indigenous people worldwide, smoke signals were used to warn nearby tribes and villages of a disease outbreak (Nakajima et al., 2006).

Telehealth communication in the 1800s can be traced to Alexander Graham Bell, who, in 1876, asked his assistant for help via telephone after spilling acid on his clothes. In 1879, The Lancet, a British medical journal, described a doctor successfully diagnosing a sick child over the telephone. In the same issue, the potential of this new communication medium to avoid unnecessary office visits was proposed (Mullick et al., 2020).

During the Civil War, telemedicine technology played a significant role. In this tumultuous period, casualties and injuries were reported using the telegraph, and orders for medical supplies and consultations were also transmitted through this medium, showcasing the practical application of telehealth in a crisis situation (Zundel, 1996).

In the late 1800s and early 1900s, wireless communication, such as radio, was introduced. Also known as "Wireless telegraphy," radio signals could be transmitted wirelessly, giving rise to information being broadcast immediately, thus overcoming challenges associated with landline-based communications (Nakajima et al., 2006, p. 280).

In 1928, an Australian Presbyterian missionary introduced a medical service to address the needs of patients living in isolation. Known later as The Flying

Doctor Service, it lacked the communication technology to deliver services effectively. To overcome this barrier, a pedal-operated generator was invented to power a radio receiver. A year later, people living in the Outback were able to call on the Flying Doctor to assist them in medical emergencies (Gogia, 2020).

In 1925, Gernsback (1884 - 1967), an inventor and science fiction writer, wrote in the magazine *Science and Invention* about an invention he called the "Teledactyl*."* This device would allow doctors to see patients through a viewscreen and touch them from miles away with robot-like arms (Novak, 2012).

In 1948, the first radiologic images were sent via telephone between medical staff at two different health centers in Pennsylvania—24 miles apart! Then, in 1959, physicians at the University of Nebraska transmitted neurological examinations across campus to medical students using two-way interactive television (Backhaus, et al., 2012).

In 1993, The American Telemedicine Association was formed, embarking on an effort to establish practice guidelines for telemedicine and assuring uniform quality of service to patients. (Davis et al., 2016)

Telemental Health Service Delivery

The major mental health service professions—Psychiatry, Psychology, Social Work, and Nursing—entered the TMH field at different times but for similar reasons. By the time COVID-19 had engulfed the world, all four professions were fully engaged in this service medium.

Psychiatry

The use of videoconferencing in psychiatry began in the late 1950s. In 1959, the Nebraska Psychiatric Institute used videoconferencing to provide group therapy, long-term therapy, consultation-liaison psychiatry, and medical student training at the Nebraska State Hospital in Norfolk (Bashshur, 2009).

In 1969, Massachusetts General Hospital (MGH) provided psychiatric consultations for adults and children at a Logan International Airport health clinic.

By the 1990s, psychiatric videoconferencing had spread further across the world, particularly in Australia, with research commencing on its ability to facilitate access to care, overcome geographical obstacles, and compare it to in-person care. (Von Hafften, 2024).

Today, Telepsychiatry has emerged as a major voice worldwide in delivering mental health services to an ever-expanding range of populations, locations, and human needs (Cormi et al., 2021; Li et al., 2022; Reay et al., 2020; Zhu et al., 2024).

Psychology

It has been reported that many psychologists were slow to adopt telepsychology as a part of their practice. National-level research found that only about 21% of psychologists used telepsychology in their clinical practice (Pierce et al., 2020).

An exception to this was psychologists in the Veterans Health Administration (VHA), which was an early mover in telehealth and provided

nearly 100,000 patients with telehealth services between 2006 and 2010 (Pierce et al, 2020). In a concurrent study, these authors reported that psychologists were estimated to perform 34.96% of their clinical work via telepsychology after the COVID-19 pandemic (Pierce et al., 2021).

In early 2010, a psychology professional wrote about the need for Telemental health services to integrate into the American Psychological Association's psychologist training component (Colbow, 2013).

In what could be interpreted as a rallying call for the profession to become involved in TMH practice opportunities, Maheu et al. (2012) wrote,

> "…it was increasingly urgent for psychologists to confront the difficult questions raised by the way information and communication technologies were altering … health care… they should recognize how advanced technologies are changing the way we communicate and process information, anticipate needed growth, and prepare to meet ensuing challenges to professional psychology" (pp 1).

In 2024, the American Psychology Association (APA) published a special issue in their official journal, The *American Psychologist,* titled Ethical Challenges in the Use of Digital Technology in Psychological Science. Ten articles covering issues confronting their profession in the use of digital technology were presented, such as the use of digital technology in smartphones, ethical challenges involving remote technologies, immigrant and refugee populations, and AI use with suicidal prevention efforts.

Social Work

Except for social workers addressing the VA population (Connolly et al., 2022), social workers in general in the U.S. reluctantly employed tele-mental health services prior to the Pandemic. Limited TMH knowledge and resources, privacy considerations, virtual non-existent training opportunities, lack of interest, and the profession's reliance on the face-to-face intervention model contributed to the profession's hesitations. Were it not for the COVID-19 pandemic forcing the profession's hand, social work would likely still be trailing the pack in utilizing TMH (Berzin et al., 2015).

However, by the time COVID-19 was in full swing, social workers had begun a fuller transition to this new model of client communication. For example, in one study, the authors found that 34% of social work respondents reported that their organization had used some such services before COVID-19, with 95% indicating telemental health services usage afterward (Lombardi et al., 2022).

In a similar study, Zhu et al. (2021) found social work telemental health providers using telemedicine daily with 17% before and 40% during the pandemic, while serving half their caseloads online (9.1% before and 57.7) during the pandemic. Furthermore, the study's caseworkers reported planning to continue to use the telemedicine model after the pandemic.

Due to the rapid onset of COVID-19, Telehealth training for Social Workers was uneven at best. Lombardi's study (2022) reported that only 23% had received some training before COVID-19, with 49% having received training since. A

further breakdown of the sources of such training revealed that 41% were from employers, 42% through a professional organization, 15% through a telehealth resource center, 10% through a school of social work, and 7% through a governmental agency.

Licensed marriage and family counselors (MFT) added Telemental health options to their clinical practice in order to remain client-centered during the Pandemic (Glass & Bickler, 2021).

Nursing

The nursing profession quickly adapted to this technological service model with an ever-expanding array of opportunities for the profession (Maheu et al., 2017). For example, the expansion of full practice authority for nurse practitioners (NPs) led to increased NPs engaging in TMH services beginning in the early 2020s (Fenton et al., 2024).

Similarly, advanced practice psychiatric mental health nurse practitioners (PMHNPs) have been just as engaged for nearly as long (Schroeder, 2022). RNs without specialty have been transitioning to TMH as rigorously and as effectively as any other service provider (Mohammed et al., 2020).

During the COVID-19 pandemic, Nursing Practitioners advocated for integrating clinical concepts such as communication and clinical decision-making into TMH practice (Baird et al., 2018).

Telemental Health (TMH)

TMH as a service model has a rich history that likely began in the 1960s, well before the COVID-19 Pandemic. For example, a study at Dartmouth University examined the use of black-and-white TV screens and audio staffed by psychiatric providers to evaluate mentally ill patients located some 25 miles away from the originating site.

At about the same time, a study at the University of Nebraska allowed physicians to provide psychiatric consultations via video to patients at Norfolk State Hospital, more than 100 miles away from the University (Mohammed, H. M., El-so, A. E., 2020).

In a 2008 study, prisoners at a correctional facility who received either face-to-face or telemental health services from a staff psychiatrist were asked to compare their satisfaction with one approach or the other. The authors reported, "… results are encouraging, as telemental health appears to offer an efficient means of service delivery without a loss in the quality of the therapeutic relationship" (Morgan et al., 2008, p.161).

Since those early and now similar studies and the explosion of mental health apps, TMH has grown exponentially. The need for remote services fueled this growth due to the COVID-19 pandemic, its effectiveness as a mental health service, its value in addressing the needs of vulnerable populations, and the shortage of service professionals to meet those needs (Auerbach & Miller, 2020).

Why TMH Service

In our first report we identified 46 Brick-and-Mortar mental health services and 115 private practice service providers for the Northridge Catchment area. Additionally, we identified mental health services available to the religious community and the process available to people in crisis.

While we have yet to interview all the mental health service community members about the need for additional services, our research indicates that TMH has the potential to augment some of those existing services and offer a new service to address server shortages and vulnerable populations (O' Keefe et al., 2021, Gardner, et al., 2020). Interviews with brick-and-mortar organizations are planned for the 2024-25 academic year to address some of these assumptions.

In an effectiveness of TMH services study by Batastini et al. (2020), they concluded,

> "There is no question that remote delivery mechanisms are hitting a stride in mental and behavioral health service industries. But are VCT services just as good as those delivered in person? Thus far, the answer points to "yes" as the available evidence suggests VCT does not grossly impede clinical outcomes in an overall general sense." *(p 18).*

Additional factors supporting TMH as a viable service option include: 1. Reduced missed appointments (Silver et al., 2020). 2. Reduced costs and increased client anonymity (Goldkind & Wolf, 2021). 3. Expanded outreach to vulnerable populations (Schaffer et al., 2020) 4. Maximizing staff time (Schaffer et al., 2020)

5. Positive international impact (Ali et al., 2022), 6. Solving delayed care issues (Hernandez, 2022). 7. Expanded service availability. (Cowan, et al., 2019) 8. Reaching vulnerable Mental health populations (Langarizadeh et al., 2017). 9. Service underutilization (DiCarlo et al., 2020). 10. Providers shortages (Auerbach & Miller, 2020). 11. Universal appeal (Rmalho et al., 2021). 12. Addressing the financial impact on patients, accessibility, and patient convenience (Haxhihamza et al., 2021). 13. Telemedicine and trust (Hall et al., 2022). 14. Providers' satisfaction (Roncero et al., 2022). 15. Patient-provider concordance (Schubert et al., 2019). 16. Cost and time-saving benefits (Sistani et al., 2022).

Against the background of all the positives of telemental health, a word of caution on what works and for whom in telemental health is offered by Schlief et al. (2022).” …service user choice, (TMH, and/or face to face), privacy and safety, the ability to connect effectively, and fostering strong therapeutic relationships need to be prioritized in delivering telemental health care” (p 1).

In conclusion, Barnett et al.’s (2021) systematic review of telemental health services pre- and post-COVID-19 summarizes our opinion and a path forward for a TMH program: “The research across a range of mental health conditions suggests that telemental health is potentially an effective, feasible, and acceptable tool for providing mental health treatment, at least when interventions are relatively well-designed and well-planned…” *(p 30).*

We would underscore the “well-designed and well-planned” admonishment for such a program.

Fundamental Program Components

We have proposed an interdisciplinary program designed to meet some of the mental health needs of the Greater Northridge community with TMH as a service model. Addressing the feasibility of such a proposal, Interns Andrea Godoy and Elijah Salazar Reyes addressed critical elements related to successful TMH programs.

They reviewed over 100 research studies and articles, organizing them into sixteen categories: Administration, Clinical considerations, Confidentiality/Privacy, Cost, Definition of terms, Ethical programs, Effectiveness/populations, HIPAA compliance, Implementation, Liability issues, Licensure, Populations to be served, Service Providers, Research components, Technology, and Training.

For this report, we have focused on confidentiality/privacy, cost, ethical issues, licensure, populations to be served, technology, and future challenges—the remaining topics will be addressed during the 2024-2025 academic year.

TMH Confidentiality/Privacy

Confidentiality and privacy are two fundamental guiding principles for a successful TMH program. As we researched these issues in the broader context of public usage, we were alarmed to uncover multiple instances of confidentiality breaches among popular online therapy platforms and apps. This discovery heightened our awareness of the importance of developing a secure TMH platform.

Applications (Apps)

A 2015 study revealed that 96% of 18,000 health apps on the Apple and Android stores posed potential security and privacy risks (Robillard et al., 2019). Despite insufficient transparency in mental health apps' privacy policies, the number of downloads for these apps still doubled (O'Loughlin et al. 2019).

This widespread adoption has normalized the rapid development of mental health apps without sufficient regulatory oversight (O'Loughlin et al. 2019). Consequently, the collection and sharing of user data is a common and legal monetization strategy for apps, putting app users at risk of experiencing a loss of personal privacy (Parker et al., 2019).

App developers employ data-sharing practices by encouraging users to share personal information without fully disclosing the associated risks. App developers offer their apps for free and incorporate advertising libraries that display ads to users, enabling third-party ad libraries to collect and share user information with other entities in the mobile system operating under the same permissions as the developer. Third-party sharing is beneficial to app developers because the information collected can be used for advertising services, analytics, or customer service support (Parker et al., 2019).

A recent study examined mental health apps to highlight privacy concerns related to consumer data. For example, Google Play Stores (Android platform) allows app developers to request permission to access users' mobile devices in order to self-report their app's data (Parker et al., 2019).

The two most common permissions requested by developers are referred to as “Dangerous permissions”. Such permissions include the developer's ability to (1) read and (2) modify or delete USB storage. With these permissions, developers can then access, modify, or delete all the stored files on the device. Furthermore, some apps have the ability to access users' text messages and contact lists without the user's permission (Parker et al., 2019).

Robillard et al.'s (2019) study analyzed the availability, readability, and content of Privacy Policies (PP) and Terms of Agreement (ToA) among mental health apps. Most apps analyzed in this study did not include PP or ToA.

The PP and ToA available from Apple and Google Play disclosed extensive user information collection, shared information with third parties, and ongoing use of the apps constituted implied consent to these PP and ToA.

Privacy policies and ToA are written for individuals at a college reading level (Robillard et al., 2019). Since America's mean reading level is the 7th grade, app developers do not consider the user's comprehension of PP and ToA (Eltorai et al., 2015)

Consequently, the user's information gathered by the mental health apps can be used in public or private investigations (Hayes et al., 2020). Digital mental health apps can be a great option for mental health support, but it is not enough to prove their effectiveness. These resources must also be safe, secure, and responsible. Just like therapists, mental health app developers should be held to confidentiality and responsible practice standards (O'Loughlin et al., 2019).

The author suggests clinicians review a mobile app's privacy policy and evaluate it against certain criteria before recommending it to their clients (O'Loughlin et al., 2019).

Online Therapy

Due to the pandemic, virtual therapy has become highly popular, resulting in the rise of digital mental health companies such as BetterHelp (Johnston, 2023). BetterHelp was founded in 2013 and is a widely known online therapy platform with over 4.5 million subscribers and counting. BetterHelp offers therapeutic services using video, online chatting, or texting (BetterHelp, n.d.).

Due to the pandemic and high demand for therapeutic services, BetterHelp's services were offered in the United Kingdom (UK). BetterHelp's employees warned that the recruitment processes, pay structure, high caseloads, American-only licensed therapists, and lack of support staff risk compromising client safety. Additionally, the platform was reportedly not equipped to handle serious or emergency cases (Johnston, 2023).

Recently, it was pointed out that BetterHelp shared its subscribers' personal information and sold it to advertising agencies without their consent. The Federal Trade Commission (FTC) played a crucial role in uncovering this information and taking action against it. The FTC is responsible for protecting the public from deceptive or unfair business practices and unfair methods of competition through law enforcement, advocacy, research, and education" (Federal Trade Commission, n.d.).

The FTC stated, “The proposed order also requires the company to pay $7.8 million to consumers to settle charges that it revealed consumers’ sensitive data with third parties such as Facebook and Snapchat for advertising after promising to keep such data private” (Federal Trade Commission, 2023).

Costs

TWC will be responsible for the costs of this program.

Ethical Issues

Discussing the impact of COVID-19 on mental health is crucial. The pandemic caused most mental health facilities across America to close in-person services, leaving clients without access to care. As a result, individuals without prior therapist connections turned to virtual crisis hotlines such as Crisis Text Line.

This nonprofit connects distressed individuals with counselors via text messages, offering short-term support and dispatching emergency services when necessary. However, it's important to note that these crisis hotlines are not a replacement for long-term therapy.

Additionally, the Crisis Text Line is only accessible to residents of the United States, Canada, United Kingdom, Ireland, and New Zealand, primarily serving English-speaking and relatively privileged demographics (Pfender, 2020).

Legal compliance is vital in providing safe and confidential TMH services. Sugarman et al. (2023) advise providers to be aware of laws and regulations when providing services via telehealth, emphasizing the importance of understanding licensure requirements across multiple jurisdictions.

The systematic review by Connolly et al. (2020) found that providers' attitudes toward telemental health via videoconferencing were positive despite drawbacks. Highlighting the importance of quality training, including an implementation plan, formalized education, training, and supervision, as well as the involvement of experienced facilitators, can help increase provider buy-in, enthusiasm, and confidence in navigating this new technology.

However, Connolly's (2020) study found few studies describing the nature and extent of TMH-V education and training received by providers. It is crucial providers have access to quality training to provide services, reducing ethical issues.

Ethical issue violations

BetterHelp, a leading telemental health service, has been accused of sharing the health information of over 7 million consumers with Facebook, Snapchat, Criteo, and Pinterest for advertising purposes. The company allegedly uploaded the email addresses of its 2 million current and former clients to Facebook and disclosed the therapy attendance information of 1.5 million people who used its site.

BetterHelp also shared the IP and email addresses of nearly 5.6 million former visitors with Snapchat for targeted advertising. The company reportedly earned millions of dollars in additional revenue by using this health information for advertising purposes. The accused actions by BetterHelp have been deemed a breach of privacy promises.

According to Liem et al. (2020), Zoom, one of the most widely used video conference providers, has faced challenges regarding its privacy policy. Zoom is a collaboration platform that aims to make connecting easier, more immersive, and more dynamic for people and businesses.

In 2020, Zoom faced criticism and accusations regarding its privacy and security practices. These criticisms include misleading encryption claims, unnecessary data disclosure to Facebook and LinkedIn, possible remote control, an attack through Zoom's macOS installer, and leaked Zoom usernames and passwords available for sale on the dark web (Chen et al., 2023).

The Federal Trade Commission (FTC) has mandated that BetterHelp pay $7.8 million to all users whose information was compromised. Additionally, the FTC and Zoom have reached a Consent Agreement regarding Zoom's misrepresentation of its security measures since 2016. As per the agreement, Zoom is required to implement better security measures.

It is crucial to emphasize the significance of the TMH guidelines established by professional associations like the American Medical Association (AMA), (Psychiatry), American Psychological Association (APA) (Psychology), National Association of Social Workers (NASW), (Social Work) and The National Association of Nurses (Nursing). These five associations provide practitioners with ethical standards to follow when using TMH.

It is equally vital for TWC to be aware of these guidelines and include them in the program's design. As part of our commitment to upholding these standards,

we will update them as they become available. Following these guidelines ensures high-quality and ethical care for our client populations.

Today, digital technology emphasizing mental health apps at Apple and Google Play stores is predicted to grow at an annual rate of 38%, resulting in untold millions of apps by 2025 (DiCarlo et al., 2020). Organizations must take responsibility for researching the privacy, confidentiality, and ethical practices of the services they use to contact or recommend clients.

Legal compliance is mandatory in providing TMH services. Sugarman et al. (2023) advise providers to be aware of laws and regulations when providing services via telehealth, emphasizing the importance of understanding licensure requirements across multiple jurisdictions.

A systematic review of telemental health by Connolly et al. (2020) found that providers' attitudes toward videoconferencing were positive despite drawbacks. The authors highlight the importance of quality training, including an implementation plan, formalized education, training, and supervision, as well as the involvement of experienced facilitators, which can help increase provider buy-in, enthusiasm, and confidence in navigating this new technology.

The authors also found few studies describing the nature and extent of TMH education and training received by providers- a key component in reducing ethical violations.

Populations

We define a population as the complete number of members in a specific area who share a common identity. This would include the entire range of age groups through the lifespan—infants, children, adolescents, families, and the aging population—in various settings, from rural and remote to urban areas (Hilty et al., 2017).

This definition would also include members of ethnic, religious, philosophical, cultural, financial, DSM-5, and other vulnerable populations.

Seriously mentally ill patients

During COVID-19, Miu et al. (2021) hypothesized that seriously mentally ill patients (SMI) might be less likely to convert to TMH than non-SMI patients. To address this issue, the authors compared teletherapy conversion and utilization rates between SMI patients and non-SMI patients in an outpatient psychiatric clinic. They found no significant differences in conversion rates between the two groups: 52% with SMI and 48% with non-SMI.

Of additional interest, the authors found that the SMI group had a far greater number of TMH visits compared to non-SMI patients. This would suggest that SMI patients were open to taking full advantage of the availability of TMH as a method of intervening in what likely were symptom exacerbations. Such findings are important as readily available treatment engagement with this population is essential if their treatment plan is to be successful.

Older adults

Iskandar et al. (2020) conducted a systematic search and review in PubMed for articles on telemental health effectiveness related to older adults. Keys for this search were titled *telemental health effectiveness,* OR, *telepsychiatry effectiveness,* OR, *psychiatric telemedicine effectiveness*, published between 2005 and 2020. Filtered for inclusion and exclusion criteria, five studies survived and served as the basis for their research findings.

The authors found multiple conclusions of significance: 1) The positive impact of Tele-therapy was sustained longer for homebound senior adults with depressive symptoms and disabilities than in-person sessions. 2) Brief, Tele conferencing provided by lay counselors with an aging population experiencing depressive symptoms, " …had a significantly higher [positive] response and remission rates…". 3) Sexual Assault victims indicated tele-mental health would be a helpful resource for accessing care due to the obstacles victims face in accessing in-person care. 4) Problem-solving video therapy among depressed, low-income older adults was sustained at a 12-week follow-up, with the majority of participants expressing positive attitudes about teleconferencing. And .5) Limitations "… for older adults with cognitive and sensory deficits, especially auditory and visual, may not be feasible as such deficits can impair the ability to interact with a therapist over a videoconference connection." (p.298)

Mood and Anxiety Disorders

Nation-wide trends in the prevalence of mood and anxiety disorders among college-age students 18 and over were examined for the years 2011-12 to 2017-18.

Reports of overwhelming anxiety and depression increased by 24% and 34%, respectively. Alarmingly, the largest increases were intentional self-injury (47%), suicidal ideation (76%), and attempts (58%). (Duffy, et al., 2019).

Hatami et al. (2022) caution, "…it is not possible to determine the best telecommunication method for each mental disorder in different populations, and the preference of patients is still face-to-face therapy" (p1).

Isolation

Loneliness in the VA population is a common feature. Devising a TMH program addressing this issue could have positive consequences (Cornell et al., 2021).

Licensure

All clinical supervision of interns will be conducted by duly licensed clinicians registered by the State of California. The Board of Behavioral Science is responsible for social workers, The Board of Psychology for Psychologists, and the California Board of Registered Nursing for nurses.

Technology

Today, digital technology emphasizing Mental Health apps at Apple and Google Play Stores is predicted to incur an annual growth rate of 38%, resulting in untold millions of apps by 2025 (Di Carlo et al., 2020).

TMH technology is essential for the remote delivery of tele-mental health services. We define TMH service delivery as the exchange of mental health information through videoconferencing platforms and electronic communication to

improve the client's mental health (Hernandez, 2022).

To ensure the client's confidentiality and privacy when interacting via TMH, we have identified messaging apps that feature end-to-end encryption (E2EE), a method of online messaging that is encrypted and guarantees that only the sender and the recipient are able to view these messages (Eddy, 2023).

According to the December 2023 issue of PC Mag, the best secure messaging apps as of 2023/2024 include Signal, WhatsApp, and Telegram. These three apps share characteristics such as free subscription, video communication, voice communication, multiplatform support, and user-friendly chat settings.

These apps are considered the gold standard for secure messaging apps. However, even with such positive reviews, these apps still have flaws, such as occasional delays, phone number requirements, and potential vulnerability to surveillance.

To address a recipient's privacy and confidentiality issues, Strauss et al. (2022) compiled a list of 49 empirically supported studies that reviewed mental health apps suitable for the safe transmission of information. A few examples of such apps include PTSD Coach, Schizophrenia Storylines, Moodkit, BeSafe, and more.

The researchers emphasize that app evaluations are to be thoughtfully integrated into clinical care. The best mental health apps available on the market today include the APA app evaluation model, The ASPECTS Framework, and One Mind PsyberGuide App Reviews.

The authors emphasized a need for more studies demonstrating stronger evidence of the effectiveness of such apps.

> "…there is some evidence for the efficacy of mobile Mental Health (MH) apps, and there is evidence that these app interventions may be feasible and acceptable, the paucity of completed clinical trials focusing on outcomes, especially for young people, limits what we can determine about the effectiveness" (p.424).

Such barriers will require more ongoing collaboration from professional organizations and developers to distribute these apps responsibly to consumers.

Challenges Forward

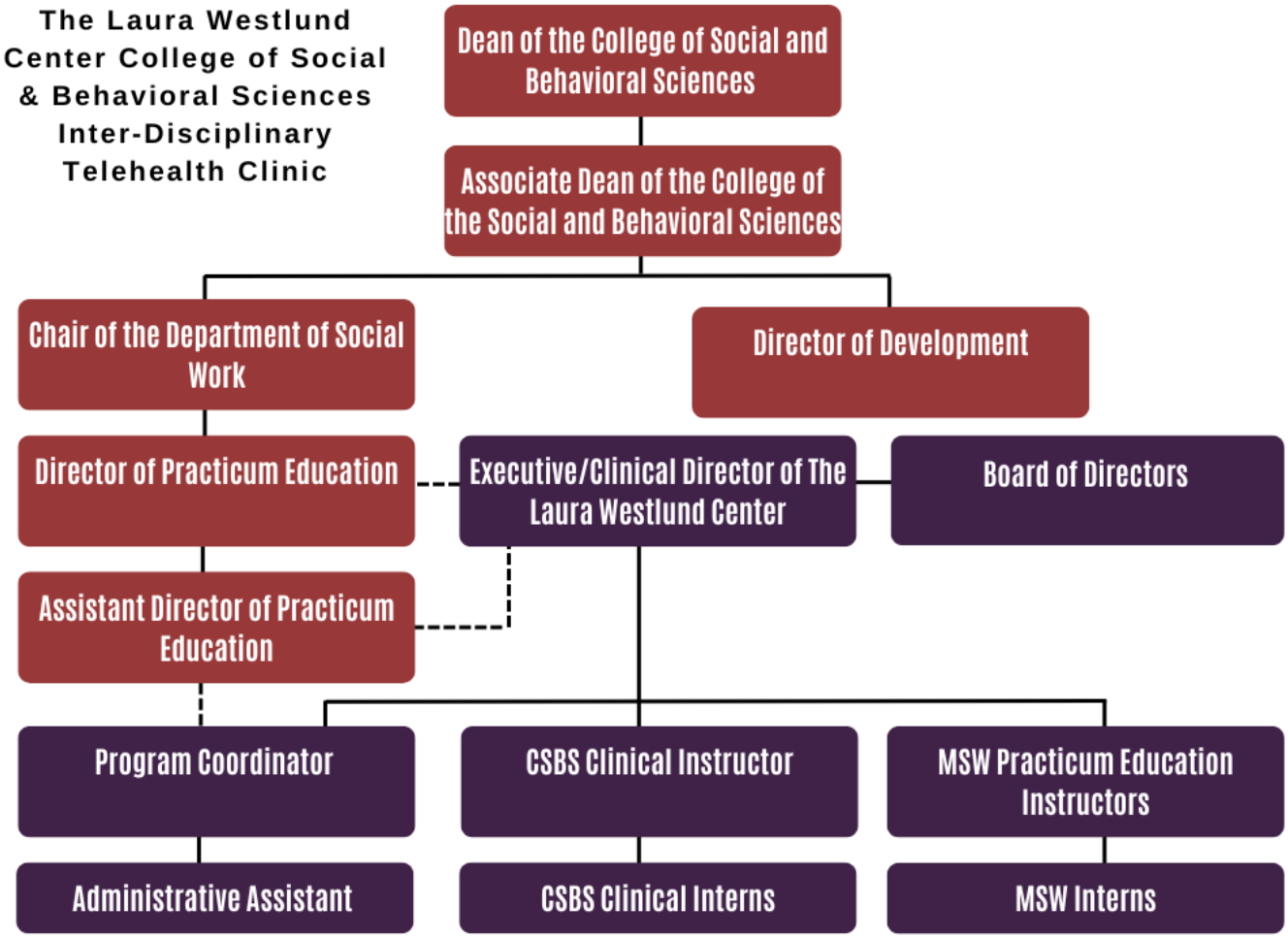
We have indicated a service delivery preference: Telemental Health (TMH). Beyond that, we will continue to vigorously develop our inter-discipline proposal. We will also maintain our research focus, conducting interviews with mental health service agencies identified in our First Report, prioritizing their recommendations, and collaborating further with other TMH service providers, such as USC's telemental health program.

Additionally, we will focus on specific issues such as:

1. Identifying a population in need that best utilizes TWC's resources to achieve the most significant outcome. 2. Establishing standards for training and supervision (Springer et al., 2021). 3. Enhancing Privacy and confidentiality guarantees (Madigan et al., 2021) 4. Clarifying administrative collaborations and shared burdens issues (Perry et al., 2020). 5. Establishing standards of practice.

(Sheperis & Smith, 2021). 6. Clinical impacts on service providers (McCoyd et al., 2022; Chen et al., 2021; Kashyap et al., 2020). 7. Identifying patient-centered perspectives and TMH (Chiauzzi et al., 2020).

ORGANIZATIONAL CHART



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