COVID-19 Changes the Nature of Tele-Mental Health: A Scope Review

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COVID-19 temporarily removed legal restrictions, institutional hurdles, organizational impediments, and technological barriers to telemental health implementations that allow mental health therapists to apply virtual meeting technologies to serve their patients. Therapists transitioned from an under-appreciated health sub-specialty small business model to essential caregiver status needing management and technological expertise to measure service quality and outcomes. A systematic literature review identified factors essential for mental health workers and organizations transitioning patient therapy models from face-to-face to online support services under pandemic restrictions. This study revealed that management, technology, health services, and legal issues represent four critical areas of e-health research during the pandemic restrictions. This study suggests that telehealth applications require alterations in both the training and skills of the providers and the need for effective management of the telehealth business as digital mental health platforms supplant traditional delivery channels. Post-pandemic telehealth applications should be a blended approach that combines the best experiences from traditional treatments and virtual ones based on the digital skills of patients and healthcare providers.

Keywords: telemental, telehealth, e-therapy, systematic literature review, technology

INTRODUCTION

The immediate effect of the COVID-19 global pandemic strained, disrupted, and curtailed traditional therapy sessions between patients and therapists when they were most needed. The sudden and unexpected spread of COVID-19 sent all but essential workers home, preventing therapists from meeting patients. Before COVID-19, therapists and their patients met face-to-face with limited opportunities to use technology to improve services, lower costs, and improve productivity (Yu & Bayram, 2021). The transition to e-therapy progressed at a tortoise's pace despite significant research expounding potential e-therapy opportunities and success stories. However, all of that changed in March 2020, when the Centers for Medicare & Medicaid Services (CMS) took the unprecedented step to broaden access to Medicare telehealth services to patients to provide a broader range of services without traveling to a healthcare facility.

The readily apparent need for therapists to cope with an increased spectrum of patients necessitated therapists to apply virtual technologies in service to their patients to an unprecedented degree. By removing barriers to telehealth services identified by Cata and Hackbarth (2014), e-therapy became real (Hackbarth & Cata, 2021). As a result, the slow-moving transition to telemental health accelerated rapidly with the removal of long-standing legal restrictions, institutional hurdles, organizational impediments, and technological barriers to telemental health implementations. COVID-19 shifted mental health services from traditional face-to-face and in-person settings to online therapy sessions. Online therapy, or "teletherapy," allows the patient to stay home and conduct a session with the therapist via video on a computer, tablet, or phone (Lindberg, 2020). Mental health funding followed the pandemic trends, making such services the second highest-funded cluster, or about 19% of North America's digital health venture volume during 2022 (Tucker, 2023). The implication is that prior research of what might be possible and the actual application of telemental health technologies might differ vastly from the current reality.

Previously, Cata and Hackbarth (2014) conducted a Delphi Study to understand why the e-therapy adoption process was slow and to establish critical success factors needed to appropriately implement Internet solutions, applications, and communication technologies in a micro context. A longitudinal study conducted in 2020 vs. 2013 (Hackbarth and Cata, 2021) identified Technology, Administrative, Managerial, and Legal impediments to teletherapy in a general mental health therapy practice. Based on this longitudinal study, COVID-19 significantly accelerated the shift to telehealth services, allowing mental health providers to provide services over digital platforms such as desktop or mobile apps. The rapid transition to digital telehealth applications under the pressure of COVID-19 challenged the healthcare industry to adapt and researchers to understand the differences and implications of how different healthcare providers in different regions adopted and implemented innovative telemental health solutions and methods.

This research study sought to understand the rapid transition to e-therapy and issues identified in the literature published during the pandemic in the United States and other world regions. A systematic understanding of other studies' critical issues in providing successful mental health services is essential. The rapid transition to digital telehealth applications under the pressure of COVID-19 challenged the healthcare industry to adapt; thus, different healthcare providers in different regions have adopted their innovative solutions or methods. Several literature review studies have focused on mental health services during the pandemic for certain mental disorders and treatments for specific age groups. There is a gap in understanding the holistic view of providing successful mental health care by coordinating and integrating Technology, Management, Health Services, and Legal platforms during the pandemic years. Applying broadly successful telehealth health lessons learned that provide insights to implement telehealth digital-orientated services successfully might be helpful for future researchers, healthcare providers, and managers.

In the next segment, we define electronic therapy as a subset of e-health and understand the rapid change in definitions and application of virtual communication technologies in the e-therapy world. The following section presents the study's methodology, data collection, results, and conclusion. We end with study limitations and directions for future research.

BACKGROUND

In March 2020, the US Congress expanded coverage for Federal Programs, Medicare, and Medicaid for teletherapy due to the Coronavirus Preparedness and Response Supplemental Appropriations Act 2020. President Trump issued an executive order on Oct 3, 2020, calling for the Creation of the Coronavirus Mental Health Working Group, which tried to maximize telehealth and online mental health services and integrate such services into primary care services (Wicklund, E, Oct 2020). In an earlier telehealth Delphi Study, Cata and Hackbarth (2014) identified several barriers to teletherapy within a small therapy practice that pinpointed legal, technological, and administrative issues preventing e-therapy adoption by practitioners. In a broader study, Marmarosh (2020) summarized findings from 329 randomized controlled studies, which included over 27,000 patients, showing the effectiveness of group treatments related to obsessive-compulsive disorder, post-traumatic stress disorder, anxiety, major depressive disorders, and

substance abuse disorders. During the pandemic, group treatments for all these disorders were more effective than individual treatments (Marmarosh, 2020).

CURRENT TELETHERAPY CONDITIONS

The transition from face-to-face to teletherapy challenges the traditional views of therapeutic processes. An online survey of British psychotherapists conducted in 2020 sheds light on remote therapies and their challenges. 80% of responses from 335 psychotherapists found teletherapy challenging while working remotely via Skype (46%) or phone (36%). These therapists found remote working challenging because of reduced interpersonal cues, technical issues, and the therapists' perception that remote working is a form of loneliness. Many participants commented on how tiring intensive concentration during teletherapy can be (McBeath et al., 2020); provider interviews with those who treat college students identified the same issues. Online therapy brings the opportunity to treat such young adults remotely, but technical problems and skills, patient distractions, and a lack of confidentiality challenge both patients and therapists (Turner and Siegel, 2022). Another online qualitative survey with 51 mental health care professionals identified three themes of practitioners' experience with online treatment during Covid 19. The "Issues" and "Difficulties" themes of online treatments included insufficient technology infrastructure, lack of organizational and procedural support, communication issues, and client unsuitability. The "Perceived Advantage" theme identified Convenience and Efficiency, Improved Client contact, and the need for additional information on the home environment as being important. The same therapists highlighted several requirements for online treatments' success, including adequate technological resources, additional software features, and technological and procedural support, which can sum up better technology support if the treatments continue in the online environment (Feijt et al., 2020).

Not all patients and therapists exhort the benefits of e-therapy. An online survey of Canadian students explored what route students would like to treat anxiety and depression. The participants in this study chose face-to-face treatments or medication over online therapy treatments. These participants perceive online therapy as "impersonal,"; "having a lack of accountability (from the other side – meaning the provider side)," and "too much work (meaning students are very busy)." At the same time, this study found that female students accept online therapy better than male students (Peynenburg et al., 2020). In general, however, there seems to be broad support for teletherapy. An online survey of North American and European psychotherapists supports this perception. Most psychotherapists positively viewed teletherapy during COVID-19 (Bekes & Aafjes-van Doorn, 2020). They found it very similar to the collaborative services they used via digitally mediated team communication (Jones et al., 2022), especially if they had previous experience (Roncero et al., 2022). The positive attitude was related to positive performance expectations, previous experience with online psychotherapy, and clinical experience. Such positive perceptions hold beyond the pandemic situation.

The importance and impacts of such a strong external force like COVID-19 for change are not discountable. The temporary relaxations in the laws relevant to e-therapy and teletherapy created an opportunity to use technology to serve patients better, lower costs, and offer more people mental health services. COVID-19 increased the need to reach out to patients in ways not widely practiced before. Therefore, the research publications in TeleMental Health increased significantly during the pandemic, looking to identify how technology can deliver and support mental health services. Before COVID-19, telemental research focused on what might be possible if restrictions were relaxed and the future potential of teletherapy. The impact of COVID-19 created a dramatic shift in telehealth research and an opportunity to identify new trends.

This study's systematic literature review (SLR) approach seeks to identify research gaps and obtain a deeper understanding of this research area (Keathley-Herring et al., 2016). This research methodology analyzes relevant research studies and selects the research that fits the researchers' defined criteria and scope (Asmussen & Møller, 2020). Previous SLR studies focused on E-Health platforms for young people in school settings in order to prevent suicidal risks by having youth engaged in their therapy sessions and preparing them for remote treatments (Exner-Cortens et al., 2021). SLR studies of the efficacy of telehealth

treatments for youth with chronic mental health issues found mixed results, which suggests that we should continue to monitor online treatments and compare them with the traditional ones after the pandemic is over (Lau et al., 2021), especially for rural youth who prefer the traditional sessions (Mseke et al., 2023). Zangani and colleagues (2022) found that patients' telemental health services were implemented and accessed differently, perhaps because high-speed Internet is unavailable in some rural areas. Our approach seeks a broader base of patients and therapists to generalize the results constructively.

THEORETICAL DEVELOPMENT AND MODEL

The PRISMA framework (an SLR methodology) methodically reviewed existing literature on the research questions of TeleMental Health and Information Technology (IT) support for it. The PRISMA protocol requires researchers to proceed through the following phases: define research questions; state the inclusion and exclusion criteria; define strategies and data sources; perform quality assessment checks; do data coding and analysis; and conclude the research with findings and discussions (Bokolo, 2021). SLR methodology is an unbiased discovery methodology to investigate and draw conclusions on the central issues that mental health care addressed during the pandemic. Previous studies on telemental health identified issues in specific population groups, but the general trends on such services are limited, and conclusions on how these services have changed are essential for the future.

Figure 1 shows the steps taken to conduct the literature review and identify the articles analyzed in this study within the scope of the research questions based on the PRISMA guidelines flowchart, which includes databases and registers only (prisma-statement.org).

RESEARCH QUESTIONS AND PHASES

Research questions in this study are related to understanding how different themes identified in previous research, especially digital technology and its components like mobile applications and Zoom software, were delivered via a digital platform during the COVID-19 pandemic.

Furthermore, this study will address the following research questions:

RQ1: *What Tele Mental Health service themes during the pandemic were identified by researchers?*

RQ2: *Which Technology features or components are more critical to delivering Mental Health services, and what new technologies were found helpful during the pandemic to support such services?*

RQ3: *Which countries have used technology to help patients with mental health services during the pandemic?*

RQ4: *What are the key takeaways of using digital platforms for delivering Mental Health services during the pandemic compared to prior research?*

Identification Phase

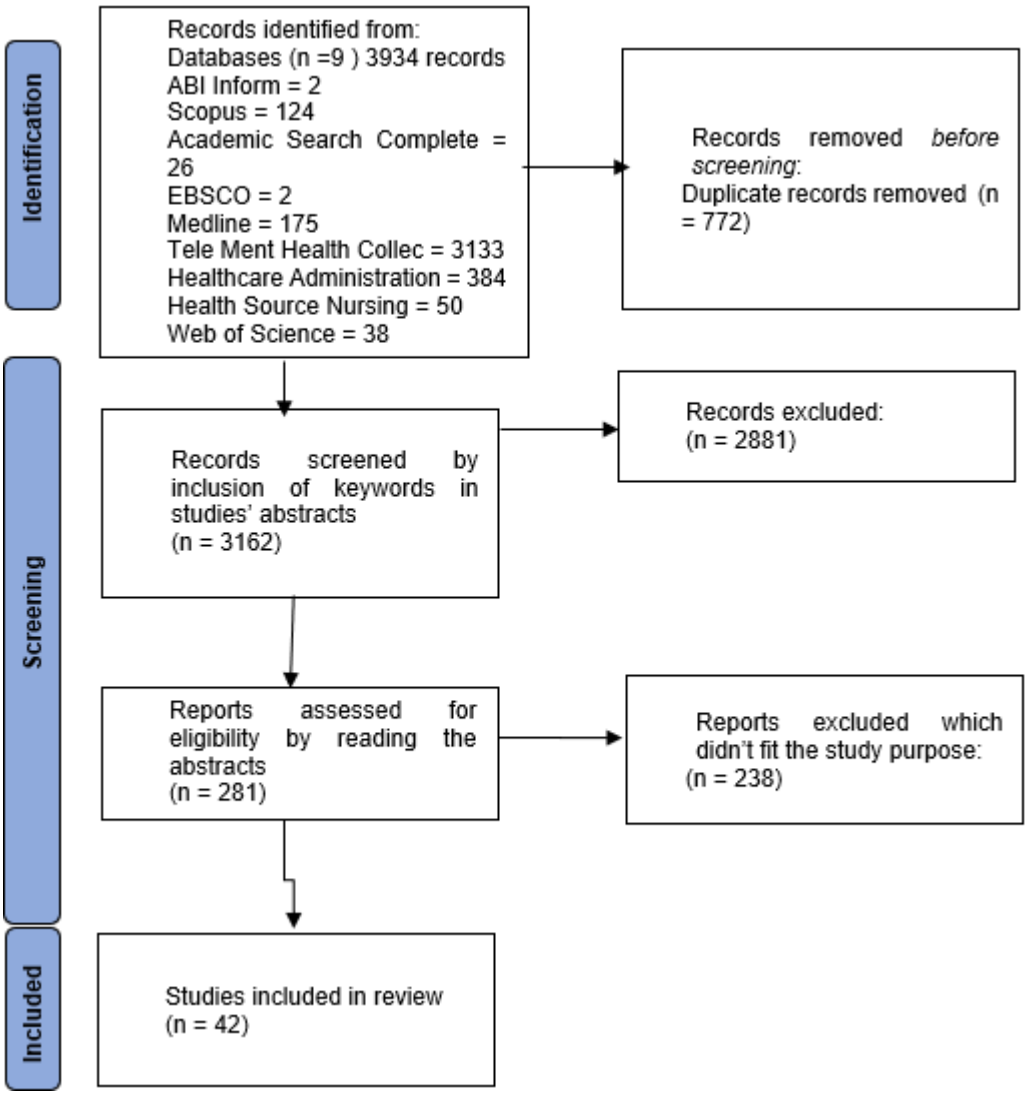
Due to the broad nature of TeleHealth, a thorough review of the literature extracted relevant journal publications and conference proceedings. Figure 1 identifies the nine databases used in the Identification phase and the number of findings. The most valuable studies in Medical databases, such as TeleMental Health Collection, Healthcare Administration, and the Web of Science databases, identified quality studies, resulting in 42 studies matching the research aim.

The study's authors paid particular attention to selecting the keywords since the findings related to Mental Health and TeleTherapy can be comprehensive and misleading when the search involves different database specialties. The authors conducted multiple iterations and discussions on which combination of keywords to use in the search and the most appropriate use of "AND" or "OR" search operators. The co-authors reviewed the keywords used in the initial search and identified the most relevant keywords used in

those studies. Later, they agreed on the keywords' order and the search operators. The Identification Phase used the exact string of keywords: "Mental Health Services" OR "Mental Health Therapy" OR "Telemental Therapy" OR "Telebehavioral" OR "telemental health" AND "Technology."

The inclusion criteria used in this study were English language, Journals, and Conference Proceedings, and the publication timeframe is Jan 1, 2020 – Dec 31, 2021. The literature search for this study occurred in March and April 2022, while some publications identified during the search have a later publication date. At the end of the PRISMA framework inclusion process, a total of 3934 articles emerged from the following databases (ABI Inform; Scopus; Academic Search Complete; EBSCO; Medline; Tele Mental Health Collection; Healthcare Administration; Health Source Nursing and Web of Science), and after removing the duplication (772 instances), 3162 usable articles remained.

FIGURE 1
PRISMA FLOWCHART FOR LITERATURE REVIEW SEARCH



Screening Phase

The abstracts were screened again for the inclusion of the keywords "Covid" or "Pandemic," which further reduced the number of articles to studies that focused on the pandemic timeline. Two hundred

eighty-one abstracts and papers were reviewed by authors in order to remove any other study that did not fit the research questions stated as the focus of this SLR. After discussing which studies led to the optimum analysis and conclusions, the authors agreed on 42 studies that best fit the research questions. All studies that fit the research objectives were reviewed and classified based on the survey study of Hackbarth and Cata (2021). Publications included in this literature review that had data collection before the pandemic were excluded from this research since the focus of this study was to identify issues related to teletherapy only during this global pandemic. Some studies included the word "Pandemic" or "COVID-19" in the conclusions or future research, but the data collection concluded before the pandemic started; therefore, these studies were excluded from the analysis phase to be congruent with the research objectives.

FINDINGS

The studies included in this SLR were read and classified based on the five themes or contexts of Tele Mental Health services suggested by Hackbarth and Cata (2021). Classification of factors was recorded in an Excel spreadsheet to track paper frequencies researched during the pandemic years. The Themes and the Factors in each of them were factors identified by a Longitudinal study in 2011 and 2020, and a comparison to this prior study on Tele Mental Health services would help to identify not only current factors of online therapy but also identify new factors that emerged only during the pandemic.

This study was focused only on the published research articles in 2020 and 2021 since this was the lockdown time almost everywhere in the world, and digital technology was mainly the only channel to deliver Tele Mental Health Services. We identified only nine studies in 2020 and 33 more in 2021 suitable for data collection and analysis. The papers included in this study ranged from 5 to 39 pages; the screening phase excluded short papers, SLRs, or editorial reviews since we wanted to include only original studies on identifying issues with Tele Mental Health Services during the pandemic years. Table 1 summarizes the demographic of studies included in this SLR, showing the variety of journals, population samples, and countries that these Tele Mental Health research covered.

TABLE 1
PUBLICATION DISTRIBUTIONS

Distribution of publications by year	Nine studies – in 2020; 33 studies – in 2021
Journal focus	Six were technology journals, 35 were medical journals, and 1 were drama journals.
Population sample	11 Adults; 1 Parents; 7 Providers; 9 Youth; 2 Providers and Youth; 12 Blank
Study type	26 Empirical; 16 Non-Empirical
Country of the population sample	USA-12 studies, UK - 5 studies, Australia - 3 studies, China - 3 studies, multi countries - 2 studies, and Brazil/ Canada/ Columbia/ Croatia/ Lebanon/ Ireland - 1 study each.

The Management factor theme is related to adequately managing Tele Mental Health by providing the right resources and acceptable use of such technologies. Both patients and providers must have access to a reliable internet connection to benefit from online treatments (Table 2 summarizes the Themes of the study). This factor has dual implications because of the overlapping technology and management issues within the Management Information System (MIS) domain. The right technology does not necessarily mean telehealth meets its potential. The most significant factor in this study, especially within the Management theme, is enriching the providers' skills by working in an online platform and equipping users with clues they can collect in an online session. Users' online communication, support, and treatment of patients should be part of their future curriculum and training.

The Technology theme included essential factors related to the need to have available technology in place, such as infrastructure, necessary hardware and software, issues with their implementation, and having an easy and intuitive interface. This study's findings highlight the need to be more involved with social networking platforms and Artificial Intelligence. Healthcare providers can use both technologies to identify and predict a mental health crisis before the individuals understand they need mental health support and treatments.

Service Quality is the third-ranked theme in this study, including the previous factors of having access to mental health services when patients or providers cannot travel to meetings because of distance, lack of transportation, or patients may have restrictions (incarcerated). A safe and private environment is a crucial element of a successful therapy session, where patients feel emotionally free to open up to their providers without being interrupted or influenced by their family, friends, or other people. An essential finding of this study is involving family members in the importance of therapy by making them more mindful and responsible for such treatments. Parents and families were the focus of several studies during the pandemic, shifting the focus to accepting and understanding the mental health treatments by the closest and most loving people in the patients' lives.

The Legal theme focused on the regulations of online therapies, especially being compliant with HIPAA regulations. Reimbursement and managing the relationship with the insurance companies was a second factor identified in at least four studies and discussed in the studies before the pandemic. This study did not identify Empathy as a theme. Factors included in studies but not found frequently enough to be discussed as significant findings made the online therapy session "interactive" and "hands-on," especially for small children, so the therapist can get more involved and connect better with the patient.

TABLE 2
THE EMERGENT THEMES OF THE STUDIES

Themes	Concepts Identified	Papers
Management	Increased technical and performance-based training for all users, increased supervision of front-line workers, and the importance of telemental health training specifically related to cultural humility/ diversity. Seven papers	Chiauzzi et al. (2020) Culleton (2021) Juan et al (2021) Khan et al. (2021) Kola et al. (2021) Masai & Dogan (2021) Parisi et al. (2121)
	A patient has Internet service, reliable Internet, and Internet access. Twelve papers	Bolton et al (2021) Chew at al. (2020) Collins-Pisano1& Court (2021) Hertlein et al. (2021) Hopkins & Pedwell (2021) Juan et al (2021) Linardon et al. (2021) Naal et al. (2021) Parisi et al. (2121) Smith et al. (2021) Svistova et al (2021) Tadros et al. (2021)

Themes	Concepts Identified	Papers
Technology	Available technologies, lack of access to technological infrastructure, required technological infrastructure, and access to reliable technology. Nine papers	Collins-Pisano1& Court (2021) Culleton (2021) Davenport et al. (2020) Hopkins & Pedwell (2021) Huilgol et al (2021) Juan et al (2021) Naal et al. (2021) Smith et al. (2021) Stewart et al. (2020)
	*Using AI and gamification for treatments and training, promoting resilience with the support of virtual platforms. Four papers	Baghaei et al. (2021) Bolton et al (2021) Chew et al. (2020) Cosic et al. (2020)
	*Identify individuals at risk (through social media footprints), support social media, and engage in social communities via platforms. Five papers	Juan et al (2021) Khan et al. (2021) Kola et al. (2021) Simbletta et al. (2021) Tan et al. (2021)
Service Quality	Allowing patients access to mental health services if face-to-face mental health services are unavailable, travel for either the patient or therapist is tricky, and remote care includes making care more accessible for some populations and distance to the mental health clinic. Seven papers	Chiauzzi et al. (2020) Hopkins & Pedwell (2021) Juan et al (2021) Parisi et al. (2121) Springer et al. (2021) Tadros et al. (2021) Villalobos et al. (2021)
	Telemental health establishes a “safe” space for safety from roommates, partners, and family members. Four papers	Hopkins & Pedwell (2021) Juan et al (2021) Racine et al. (2020) Smith et al. (2021)
	*Parental involvement and responsiveness, a family systems-oriented approach, mindful parenting strategies. Four papers	Comer & Furr (2021) Linardon et al. (2021) Springer et al. (2021) Svistova et al (2021)
Legal	Liability issues of the patient location (state boundaries), HIPAA compliance, and telehealth parity laws. Five papers	Bolton et al (2021) Chiauzzi et al. (2020) Hertlein et al. (2021) Huilgol et al (2021) Svistova et al (2021)
	Insurance companies will authorize reimbursement options in the future. Four papers	Chiauzzi et al. (2020) Huilgol et al (2021) McKee et al. (2021) Svistova et al (2021)
Empathy	No factors were found in four or more research papers.	-

*Noted factors are new factors not identified from the longitudinal Delphi study (2021).

DISCUSSIONS

Hackbarth and Cata (2021) suggested five telemental themes and respective factors for successful Mental Health Therapy via online platforms. Those Themes were Technology, Management, Legal, Empathy, and Service Quality. The results of this systematic literature review address the RQ1 and identify only four themes (with the highest frequency of the factors) where management is the most important one (19 studies), followed by technology (18 studies), Service Quality (15 studies), and Legal (9 studies). Very few studies identified Empathy as a telemental health factor.

This research found that the Management theme broadly discussed assigning the right resources to the providers, therapy centers, and patients to benefit from telemental health services. It is interesting to notice the overlapping of these factors in the Technology Theme, which is the primary concern of MIS (Management of Information Systems), which is the strategic use of technology resources to perform business tasks and care for customers. Service Quality, the last factor in the longitudinal study, is ranked as the third Theme in this SLR. Providing high-quality services, especially for patients in remote areas or those with difficulty traveling during the pandemic, was a primary concern of studies published in 2020 – 2021. These findings follow other SLR studies in identifying the lack of convenient internet access as an essential issue. For example, remote youth patients in Australia prefer in-person therapy for a higher-quality session (Mseke et al., 2023).

Management of therapists and supporting the necessary technology needed to create and maintain the interactions between therapist and patient is critical. RQ2 relates to the new trends and technologies used during the pandemic. Implementing and learning software to meaningfully and professionally interact with patients created a steep learning curve for most therapists. Therapists needed to adjust to the increased security of online sessions and the protection of patients in remote settings from unwarranted interference in patient treatment, technical difficulties, and lack of traditional visual cues needed for effective interpersonal communications. Therapists and patients waited for service providers to expand the bandwidth needed for entertainment, work-at-home jobs, video-conferencing, peer support, and staying engaged with others in order to deal with solitude and depression. Therapists competed with Artificial Intelligence, Gaming, Social Media applications, and other online entertainment options as potential patients dealt with COVID-19 lockdown stressors.

The findings of RQ3 are not surprising in that the most developed countries in North America, Europe, and Asia were able to support online mental health services and provide the necessary technology resources during the global pandemic.

The key takeaways from this SLR compared to previous studies (RQ4), especially from Hackbarth and Cata (2021), are related to including peer support and parental guidance in managing mental health issues. Many studies focused on youth (21 %) vs. adults (26%) dealing with mental health issues. These numbers highlight the need to focus on the early stages of patients developing mental health issues and the use of technology tools that youth like to engage with in their daily activities. The providers should apply and manage gamification, mobile apps, social media, and other technologies to help young patients in the telemental healthcare space. Providers must have a deeper understanding of such technologies and integrate them into patient sessions.

CONCLUSIONS

COVID-19 disrupted the traditional delivery of mental health therapies by rapidly removing legal, administrative, technical, and management barriers—creating opportunities for therapists to use technology without the historical barriers limiting teletherapy's use and expansion. The results of this study suggested widespread disruption of existing management processes. A clear finding is that disruption from traditional face-to-face therapies to online technologies is a radical shift that utilizes and requires alternative teletherapy mechanisms to reach more patients. Understanding the change in the sequencing of themes from pre-COVID to post-COVID is essential, as well as the intense focus on telemental therapy management. The nature of the telemental business changed after COVID-19 if it was a business pre-COVID. Therapists

went from under-appreciated health sub-specialty small businesses to essential caregivers needing management and technological exercise to provide outstanding service quality and outcomes. The shift away from Empathy as a theme further supports the trend of teletherapy being a business post-COVID. It may be that healthcare organizations seeking to provide mental health alternatives to employees and their families need to create practical managerial and technological frameworks prior to implementing care.

Therapists and researchers must seek to understand the effectiveness of widespread teletherapy, whether the results are satisfactory, what limitations may exist, and whether COVID-19 is an appropriate baseline for implementing the widespread use of teletherapy technology. The temporary removal of legal impediments to telemental health suggests that technology reframed how mental health services were delivered and outdated laws and administrative practices underserved the public good. Results also suggest widespread acceptance of telehealth health practices from practitioners, patients, parents, and the community. Mental health help and support from peers and a social network community can sometimes be the first to identify a health crisis and guide individuals to seek mental health care. Artificial intelligence and gaming are tools to successfully integrate the treatment of youth and adults who spend more time with technology.

Telemental Health is now a business. Once managerial and technological support is in place, therapists must be trained on technology trends and creative ways to integrate them into successful mental health treatments with an appropriate understanding of time and cost in their business model. We expect significant changes in the mental health academic and professional curriculums of the providers working in the digital space and more managerial and administrative changes soon. A different mindset in the telemental health profession, either a hybrid mindset by mental health administrators, should be embraced. Patient desires will overcome historical legal and insurance impediments from traditional constituencies representing pre-COVID-19 laws, standards, and operating methods. Online mental health is here to stay as a new, everyday post-COVID-19 healthcare world emerges.

LIMITATIONS AND FUTURE DIRECTIONS

The authors' biases bound Systematic Literature Reviews. The PRISMA framework helped reduce bias, and many identified articles mediate this bias. The authors identified a possible fifth research question related to patient success. The primary focus would be delivering telehealth to young persons, Adolescents, and Parents. Telehealth technologies may provide an effective way to deliver treatment without the stigma of face-to-face therapy. The study's usefulness may be limited to English-speaking countries and localities where English-speaking authors reside.

REFERENCES

Anthony, B. (2020). Managing digital transformation of smart cities through enterprise architecture – A review and research agenda. *Enterprise Information Systems*, *15*(3), 299–331. https://doi.org/10.1080/17517575.2020.1812006

Asmussen, C.B., & Møller, C. (2020). Enabling supply chain analytics for enterprise information systems: A topic modelling literature review and future research agenda. *Enterprise Information Systems*, pp. 1–48.

Baghaei, N., Stemmet, L., Khaliq, I., Ahmadi, A., Halim, I., Liang, H.-N., Xu, W., . . . Porter, R. (2021). Designing individualised virtual reality applications for supporting depression: A feasibility study. *Companion of the 2021 ACM SIGCHI Symposium on Engineering Interactive Computing Systems*, pp. 6–11.

Békés, V., & Aafjes-van Doorn, K. (2020). Psychotherapists' attitudes toward online therapy during the COVID-19 pandemic. *Journal of Psychotherapy Integration*, *30*(2), 238–247.

Bolton, C.A., Thompson, H., Spring, J.A., & Frick, M.H. (2023). Innovative play-based strategies for teletherapy. *Journal of Creativity in Mental Health*, *18*(4), 554–565.

Burton, A., McKinlay, A., Aughterson, H., & Fancourt, D. (2023). Impact of the COVID-19 pandemic on the mental health and well-being of adults with mental health conditions in the UK: A qualitative interview study. *Journal of Mental Health*, *32*(6), 1040–1047.

Cata, T., & Hackbarth, G. (2014). Critical success factors for electronic therapy – A delphi study. *Communications of the Association for Information Systems*, *34*(1), 1425–1438. Retrieved from aisel.aisnet.org/cais/vol34/iss1/83/

Chen, C.K., Palfrey, A., Shreck, E., Silvestri, B., Wash, L., Nehrig, N., Baer, A.L., . . . Chodosh, J. (2021). Implementation of Telemental Health (TMH) psychological services for rural veterans at the VA New York Harbor Healthcare System. *Psychological Services*, *18*(1), 1–10.

Chew, A.M.K., Ong, R., Lei, H.-H., Rajendram, M., K V, G., Verma, S.K., . . . Gunasekeran, D.V. (2020). Digital Health Solutions for Mental Health Disorders During COVID-19. *Frontiers in Psychiatry*, *11*, 582007.

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. *JMIR Mental Health*, *7*(12), e24021.

Collins-Pisano, C., Velez Court, J., Johnson, M., Mois, G., Brooks, J., Myers, A., . . . Fortuna, K. (2021). Core competencies to promote consistency and standardization of best practices for digital peer support: Focus group study. *JMIR Mental Health*, *8*(12), e30221.

Comer, J.S., Furr, J.M., del Busto, C., Silva, K., Hong, N., Poznanski, B., . . . Puliafico, A. (2021). Therapist-Led, internet-delivered treatment for early child social anxiety: A waitlist-controlled evaluation of the icalm telehealth program. *Behavior Therapy*, *52*(5), 1171–1187.

Ćosić, K., Popović, S., Šarlija, M., & Kesedžić, I. (2020). Impact of human disasters and covid-19 pandemic on mental health: Potential of digital psychiatry. *Psychiatria Danubina*, *32*(1), 25–31.

Culleton, B. (n.d.). Exploring the professional experiences of mental health occupational therapists during a period of COVID-19. *Irish Journal of Occupational Therapy*.

Davenport, T.A., Cheng, V.W.S., Iorfino, F., Hamilton, B., Castaldi, E., Burton, A., . . . Hickie, I.B. (2020). Flip the clinic: A digital health approach to youth mental health service delivery during the COVID-19 pandemic and beyond. *JMIR Mental Health*, *7*(12), e24578.

Exner-Cortens, D., Baker, E., Gray, S., Fernandez Conde, C., Rivera, R.R., Van Bavel, M., . . . Arnold, P.D. (2021). School-based suicide risk assessment using eHealth for youth: Systematic scoping review. *JMIR Mental Health*, *8*(9), e29454.

Feijt, M., De Kort, Bongers, Y., Bierbooms, I., Westerink, J., & Ijsselsteijn, J. (2020). Mental health care goes online: Practitioners' experiences of providing mental health care during the COVID-19 Pandemic. *Cyberpsychology, Behavior, and Social Networking*. DOI: 10.1089/cyber.2020.0370.

Hackbarth, G., & Cata, T. (2021). E-Therapy Critical success factors: The immediate impact of COVID-19. *E-Services*, *13*(1).

Hertlein, K.M., Drude, K.P., Hilty, D.M., & Maheu, M.M. (2021). Toward proficiency in telebehavioral health: Applying interprofessional competencies in couple and family therapy. *Journal of Marital and Family Therapy*, *47*(2), 359–374.

Hopkins, L., & Pedwell, G. (2021). The COVID PIVOT – Re-orienting child and youth mental health care in the light of pandemic restrictions. *Psychiatric Quarterly*, *92*(3), 1259–1270.

Huilgol, Y.S., Torous, J., Gold, J.A., & Goldman, M.L. (2023). Telemental health policies for college students during COVID-19. *Journal of American College Health*, *71*(3), 665–669.

Jones, L.S., Russell, A., Collis, E., & Brosnan, M. (2022). To what extent can digitally-mediated team communication in children's physical health and mental health services bring about improved outcomes? A systematic review. *Child Psychiatry & Human Development*, *53*(5), 1018–1035.

Keathley-Herring, H., Van Aken, E., Gonzalez-Aleu, F., Deschamps, F., Letens, G., Orlandini, Khan, A.N., Bilek, E., Tomlinson, R.C., & Becker-Haimes, E.M. (2021). Treating social anxiety in an era of social distancing: Adapting exposure therapy for youth during COVID-19. *Cognitive and Behavioral Practice*, *28*(4), 669–678.

Kola, L., Kohrt, B.A., Hanlon, C., Naslund, J.A., Sikander, S., Balaji, M., . . . Patel, V. (2021). COVID-19 mental health impact and responses in low-income and middle-income countries: Reimagining global mental health. *The Lancet Psychiatry*, *8*(6), 535–550.

Lau, N., Colt, S.F., Waldbaum, S., O'Daffer, A., Fladeboe, K., Yi-Frazier, J.P., . . . Rosenberg, A.R. (2021). Telemental health for youth with chronic illnesses: Systematic review. *JMIR Mental Health*, *8*(8), e30098.

Linardon, J., Westrupp, E.M., Macdonald, J.A., Mikocka-Walus, A., Stokes, M.A., Greenwood, C.J., . . . Fuller-Tyszkiewicz, M. (2022). Monitoring Australian parents' shifting receptiveness to digital mental health interventions during the COVID-19 pandemic. *Australian & New Zealand Journal of Psychiatry, 56*(11), 1503–1514.

Lindberg, S. (2020). *Does Health Insurance Cover Online Therapy*? Retrieved from https://www.verywellmind.com/does-my-health-insurance-cover-online-therapy-4842511

Marmarosh, C.L., Forsyth, D.R., Strauss, B., & Burlingame, G.M. (2020). The psychology of the COVID-19 pandemic: A group-level perspective. *Group Dynamics: Theory, Research, and Practice*, *24*(3), 122–138.

Masai, A.N., Güçiz-Doğan, B., Ouma, P.N., Nyadera, I.N., & Ruto, V.K. (2021). Healthcare services utilization among international students in Ankara, Turkey: A cross-sectional study. *BMC Health Services Research*, *21*(1), 311.

McBeath, A.G., du Plock, S., & Bager, C.S. (2020). The challenges and experiences of psychotherapists working remotely during the coronavirus pandemic. *Counseling and Psychotherapy Research*, *20*, 394–405.

McKee, G.B., Pierce, B.S., Donovan, E.K., & Perrin, P.B. (2021). Examining models of psychologists' telepsychology use during the COVID-19 pandemic: A national cross-sectional study. *Journal of Clinical Psychology, 77*(10), 2405–2423.

Mseke, E.P., Jessup, B., & Barnett, T. (2023). A systematic review of the preferences of rural and remote youth for mental health service access: Telehealth versus face-to-face consultation. *The Australian Journal of Rural Health*.

Naal, H., Mahmoud, H., & Whaibeh, E. (2021). The potential of telemental health in improving access to mental health services in Lebanon: Analysis of barriers, opportunities, and recommendations. *International Journal of Mental Health*, *50*(3), 218–233.

Parisi, K.E., Dopp, A.R., & Quetsch, L.B. (2021). Practitioner use of and attitudes towards video-conferencing for the delivery of evidence-based telemental health interventions: A mixed methods study. *Internet Interventions*, *26*, 100470.

PC. (2016). Assessing the maturity of a research area: Bibliometric review and proposed framework. *Scientometrics*, *109*, 927–951

Peynenburg, V.A., Mehta, S., & Hadjistavropoulos, H.D. (2020). Post-secondary student perceptions and preferences for the treatment of depression and anxiety: Comparison of internet-delivered cognitive behavior therapy to face-to-face cognitive behavior therapy and medication. *Canadian Journal of Behavioural Science*, *52*(3), 220–230.

PRISMA Guidelines. (n.d.). Retrieved from http://www.prisma-statement.org/PRISMAStatement/FlowDiagram

Racine, N., Hartwick, C., Collin-Vézina, D., & Madigan, S. (2020). Telemental health for child trauma treatment during and post-COVID-19: Limitations and considerations. *Child Abuse & Neglect*, *110*, 104698.

Reilly, S.E., Zane, K.L., McCuddy, W.T., Soulliard, Z.A., Scarisbrick, D.M., Miller, L.E., & Mahoney, J.J., III. (2020). Mental health practitioners' immediate practical response during the COVID-19 pandemic: Observational questionnaire study. *JMIR Mental Health, 7*(9), e21237.

Roncero, C., Remon-Gallo, D., Casado-Espada, N., Aguilar, L., Gamonal-Limcaoco, S., Gallego, M.T., . . . Buch-Vicent, B. (2022). Healthcare professionals' perception and satisfaction with mental health tele-medicine during the COVID-19 outbreak: A real-world experience in telepsychiatry. *Frontiers in Psychiatry*, *13*, 1–11.

Simblett, S.K., Wilson, E., Morris, D., Evans, J., Odoi, C., Mutepua, M., . . . Wykes, T. (2021). Keeping well in a COVID-19 crisis: A qualitative study formulating the perspectives of mental health service users and carers. *Journal of Mental Health*, *30*(2), 138–147.

Smith, T., Norton, A.M., & Marroquin, L. (2023). Virtual family play therapy: A clinician's guide to using directed family play therapy in telemental health. *Contemporary Family Therapy*, *45*(1), 106–116.

Springer, P.R., Falceto, O., Bischoff, R.J., Barros, E., Scheeren, P., Taylor, N.C., & Cargnin, D. (2021). A pilot study of a family systems-oriented telemental health model in rural Brazil. *Journal of Marital and Family Therapy*, *47*(2), 533–548.

Stewart, R.W., Orengo-Aguayo, R., Young, J., Wallace, M.M., Cohen, J.A., Mannarino, A.P., & de Arellano, M.A. (2020). Feasibility and effectiveness of a telehealth service delivery model for treating childhood post-traumatic stress: A community-based, open pilot trial of trauma-focused cognitive–behavioral therapy. *Journal of Psychotherapy Integration*, *30*(2), 274–289.

Svistova, J., Harris, C., Fogarty, B., Kulp, C., & Lee, A. (2022). Use of telehealth amid the COVID-19 pandemic: Experiences of mental health providers serving rural youth and elderly in Pennsylvania. *Administration and Policy in Mental Health and Mental Health Services Research*, *49*(4), 530–538.

Tadros, E., Aguirre, N., Jensen, S., & Poehlmann-Tynan, J. (2021). COVID-19 Inspired relational telemental health services for incarcerated individuals and their families. *Contemporary Family Therapy*, *43*(3), 214–225.

Tan, Y., Lattie, E.G., Qiu, Y., Teng, Z., Wu, C., Tang, H., & Chen, J. (2021). Accessibility of mental health support in China and preferences on web-based services for mood disorders: A qualitative study. *Internet Interventions*, *26*, 100475.

Tucker, J. (2023). Health Trends 2023: The No. 1 trend may surprise you and bring an opportunity for practice. *Chiropractic Economics*, *69*(1), 30–34.

Turner, B.J., & Siegel, S. (2022). Telemedicine and mental health care of young adults during COVID-19: A qualitative study. *Practice Innovations*, *7*(1), 64–70.

Vera San Juan, N., Shah, P., Schlief, M., Appleton, R., Nyikavaranda, P., Birken, M., . . . Johnson, S. (2021). Service user experiences and views regarding telemental health during the COVID-19 pandemic: A co-produced framework analysis. *PLOS ONE*, *16*(9), e0257270.

Villalobos, B.T., Dueweke, A.R., Orengo-Aguayo, R., & Stewart, R.W. (2023). Patient perceptions of trauma-focused telemental health services using the Telehealth Satisfaction Questionnaire (TSQ). *Psychological Services*, *20*(1), 107–121.

Wicklund, E. (2020). Concerns Add Value to School-Based Telehealth Programs. *mHealth Intelligence*. Retrieved from https://mhealthintelligence.com/features/school-based-telehealth-makes-health-a-priority-for-teachers-providers.

Yu, X., & Bayram, A. (2021). Managing capacity for virtual and office appointments in chronic care. *Health Care Management Science*, *24*, 742–767.

Zangani, C., Ostinelli, E.G., Smith, K.A., Hong, J.S.W., Macdonald, O., Reen, G., . . . Cipriani, A. (2022). Impact of the COVID-19 pandemic on the global delivery of mental health services and telemental health: Systematic review. *JMIR Mental Health*, *9*(8), 1–19.