

Telehealth and Telemental Health Services

A Bibliography



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Scope

This bibliography provides citations and abstracts to research literature and guidelines related to the use of remote medical and mental health services. Publications are English language books and articles. International publications are included.

Organization

Publications are listed in date descending order. Links are provided to full text when possible.

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Telehealth and Telemental Health Services

A Bibliography

Appleton, R., Barnett, P., Vera San Juan, N., Tuuday, E., Lyons, N., Parker, J., Roxburgh, E., Spyridonidis, S., Tamworth, M., Worden, M., Yilmaz, M., Seldalis, N., Lloyd-Evans, B., Needle, J. J. & Johnson, S. (2023). [Implementation strategies for telemental health: A systematic review](#). *BMC Health Services Research*, 23(78). DOI:10.1186/s12913-022-08993-1

The COVID-19 pandemic resulted in a rapid shift from traditional face-to-face care provision towards delivering mental health care remotely through telecommunications, often referred to as telemental health care. However, the manner and extent of telemental health implementation have varied considerably across settings and areas, and substantial barriers are encountered. There is, therefore, a need to identify what works best for service users and staff and establish the key mechanisms for efficient integration into routine care. We aimed to identify investigations of pre-planned strategies reported in the literature intended to achieve or improve effective and sustained implementation of telemental health approaches (including video calls, telephone calls, text messaging platforms or a combination of any of these approaches with face-to-face care), and to evaluate how different strategies influence implementation outcomes. A systematic review was conducted, with five databases searched for any relevant literature published between January 2010 and July 2021. Studies were eligible if they took place in specialist mental health services and focused on pre-planned strategies to achieve or improve the delivery of mental health care through remote communication between mental health professionals or between mental health professionals and service users, family members, unpaid carers, or peer supporters. All included studies were quality-assessed. Data were synthesised using the Expert Recommendations for Implementing Change (ERIC) compilation of implementation strategies and the taxonomy of implementation outcomes. A total of 14 studies were identified as meeting the inclusion criteria from a total of 14,294 records of which 338 were assessed at full text. All ERIC implementation strategies were used by at least one study, the most commonly reported being ‘Train and educate stakeholders’. All studies reported using a combination of several implementation strategies, with the mean number of strategies used per study of 3.5 (range 2–6), many of which were reported to result in an improvement in implementation over time. Few studies specifically investigated a single implementation strategy and its associated outcomes, making conclusions regarding the

most beneficial strategy difficult to draw. Using a combination of implementation strategies appears to be a helpful method of supporting the implementation of telemental health. Further research is needed to test the impact of specific implementation strategies on implementation outcomes.

Baker, A. J. L., Konigsberg, M., Brown, E., & Adkins, K. L. (2023). [Successes, challenges, and opportunities in providing evidence-based teletherapy to children who have experienced trauma as a response to Covid-19: A national survey of clinicians.](#) *Children and Youth Services Review*, *146*, 106819. DOI:10.1016/j.chilyouth.2023.106819

While teletherapy is not a new phenomenon, most clinicians have not been trained and do not routinely practice it. The current study was designed to ascertain challenges and opportunities presented by the widescale usage of teletherapy especially for traumatized children, which was necessitated by the COVID-19 pandemic. Two hundred and fifty clinicians across the United States providing teletherapy to traumatized children completed an online survey. Results revealed that many logistical aspects of treatment were perceived to be easier when implemented remotely. Some clinical aspects of care were also perceived to be easier, notably engagement with caregivers. Developing rapport, assessing emotions, and keeping children's attention, however, were perceived as more challenging. Child characteristics such as age, attention span, and screen fatigue were viewed as creating challenges. Most clinicians had not received training in relevant topics for teletherapy and were eager to receive such training. These results suggest many avenues for refining and fine-tuning remote mental health services especially for children.

Cassity-Caywood, W., Griffiths, A., Woodward, M., & Hatfield, A. (2023). [The benefits and challenges of shifting to telehealth during COVID-19: Qualitative feedback from Kentucky's sexual violence resource centers and children's advocacy centers.](#) *Journal of Technology in Behavioral Science*, *8*(1), 87–99. DOI:10.1007/s41347-022-00296-w

The onset of the COVID-19 pandemic presented novel challenges for service providers addressing mental health issues with a large shift to the utilization of telehealth. While previous research has examined the benefits and challenges of providing mental health and crisis services remotely through telehealth, little research exists examining the use of telehealth in children's advocacy centers (CACs) and sexual violence resource centers (SVRCs). CACs and SVRCs are multi-disciplinary agencies taking a holistic approach to addressing interpersonal violence, making them

unique in that they provide a range of direct services beyond mental health counseling (e.g., legal advocacy, medical exams, and prevention education) but all geared toward public health and safety. The current study explored the experiences of direct service providers in Kentucky CACs and SVRCs and their opinions about the most significant challenges and benefits of adapting their practices at the onset of the COVID-19 pandemic. A total of 118 providers participated in the study, and 88 reported using telehealth (defined as communicating with clients via technology such as videoconferencing, phone calls, or email) since the onset of COVID-19. Qualitative data from those 88 respondents regarding the challenges and benefits of using telehealth were collected and coded using a thematic content analysis. 78.6% of the sample indicated that they served primarily rural areas. Benefits noted included increasing treatment access, increasing treatment flexibility, and advancing continuity of care, while challenges included difficulties with technology, client engagement, privacy, and logistical challenges. Responses highlighted that telehealth presented both a number of advantages and difficulties and that more formal guidance for providers at CACs and SVRCs was desired.

Ecker, A. H., Day, G., Amspoker, A. B., Bryan, J. L., Day, S. C., Wassef, M., Weaver, K., & Lindsay, J. (2023). [Feasibility of group-based implementation facilitation for video telemental health](#). *Journal of Technology in Behavioral Science*, 1–5.
DOI:10.1007/s41347-022-00295-x

Video telehealth experienced rapid growth throughout the COVID-19 pandemic in many healthcare sectors, including mental health. The Veterans Health Administration’s video telehealth platform, VA Video Connect, has been widely used to reach veterans who may have experienced difficulty accessing care, such as those living in rural areas or other barriers (e.g., transportation). Implementing VVC requires a multifaceted approach, including training providers on technical skills, increasing access to equipment for providers and veterans, and integrating VVC within the culture and processes of the clinic unit. Prior successful VVC implementation efforts in rural areas have focused on simultaneous one-on-one provider and leadership engagement using implementation facilitation (IF). However, given the rapid need for VVC expansion in light of limits and dangers associated with in-person care during the pandemic, our team developed group facilitation to increase the reach of VVC implementation through IF. Group facilitation combined training in technical and policy elements of VVC with IF with groups of providers from clinic units. This approach was designed to rapidly disseminate the necessary knowledge to conduct

VVC combined with collaborative problem solving as a team to improve the ability of the clinical team to sustain VVC. Attendees were asked for feedback on the session through multiple choice and open-ended questions. Participants (N = 26) reported being highly satisfied with the training and reported a high degree of confidence in their ability to use VVC. Based on evaluation data and interview feedback, providers and clinic leaders were satisfied with group facilitation. Group facilitation may be a helpful tool in rapidly training clinical teams to implement and sustain video telemental health.

Lange, A. M. C., Humayun, S., & Jefford, T. (2023). [The feasibility of providing remote functional family therapy with adolescents during the COVID-19 pandemic: A mixed method study](#). *Child & Youth Care Forum*, 52(2), 441–466. DOI:10.1007/s10566-022-09692-y

Due to the recent COVID-19 pandemic, mental health care has largely transferred its services to online platforms, using videoconferencing (VC) or teletherapy. Within the field of family therapy, however, there is little evidence on the feasibility of using VC, especially when working with whole families at the edge of care. Objective: This study investigated the feasibility of remote Functional Family Therapy (FFT), using a mixed-method approach. Method: Study 1 consisted of semi-structured interviews with 23 FFT professionals (18 female) about their experience of providing remote FFT during the COVID-19 pandemic. Study 2 included monitoring data of 209 FFT clients (46% female, Mage = 14.00) who participated in FFT during the pandemic. We compared families who received mainly in-person, mainly remote or a mix of remote and in-person on client-reported alliance, drop-out, therapist-rated outcomes, and treatment intensity using MANCOVA's and chi-square tests. Results: In Study 1 two themes emerged around experienced challenges, namely 'Feeling in control' and 'Engagement and alliance'. Two other themes emerged around adaptations, namely 'Being more on top' and 'Connecting in different ways'. In Study 2, we found that the therapeutic alliance was not related to using VC. Also, families had less between-session contact during the Engagement and Motivation Phase when receiving mainly VC, but had more sessions and longer therapy when receiving a mix of in-person and remote therapy. Conclusions: The current study suggests that providing systemic family teletherapy to families on the edge of care is feasible. Further development of systemic family teletherapy is warranted.

Lee, D. J., Heyman, A. N., Winkelman, L., Sneed, Z., & Sametz, R. (2023). Effectiveness of teletherapy during the COVID-19 pandemic. *Journal of Mental Health Counseling, 45*(2), 147–165. DOI:10.17744/mehc.45.2.04

This study aimed to examine the effectiveness of and client satisfaction with teletherapy services provided during the COVID-19 pandemic. A 13-item electronic survey was utilized to measure participant use of and satisfaction with teletherapy. The frequency of symptoms assessed was consistently higher during the COVID-19 time frame than pre-COVID-19. Most respondents indicated that their symptoms worsened or new symptoms arose during the COVID-19 time frame. Additionally, 39.6% of respondents indicated an increase in teletherapy use. A significant model was found that predicted a collective effect for satisfaction with teletherapy counseling. Reported increases in symptomology additionally indicated a greater need for accessible care during the pandemic. This study's findings support a continuation of teletherapy use in response to the COVID-19 pandemic due to reported increases in use of and satisfaction with teletherapy services.

Martin, A. N., McLeigh, J. D., & Lamminen, L. M. (2023). [Examining the feasibility of telehealth trauma-focused cognitive behavioural therapy \(TF-CBT\) with young people in foster care](#). *Journal of Child & Adolescent Trauma, 1*–9. DOI:10.1007/s40653-023-00538-w

Purpose: Despite the high rate of trauma exposure among young people with child welfare involvement, various systematic and patient barriers exist that inhibit utilization of evidence-based trauma treatments. One strategy for alleviating barriers to such treatments is using telehealth. A few studies have found that the clinical outcomes of telehealth TF-CBT are comparable to those found from clinic-based, in-person treatment administration. Studies have yet to examine the feasibility of telehealth TF-CBT with young people in care. The current study sought to address this gap by examining outcomes for patients who received telehealth TF-CBT, along with factors that may have impacted successful completion, at an integrated primary care clinic exclusively serving young people in care. **Methods:** Patient data were collected retrospectively from the electronic health records of 46 patients who received telehealth TF-CBT between March 2020 and April 2021, and feedback was sought via focus group from 7 of the clinic's mental health providers. A paired-sample t-test was conducted to evaluate the impact of the intervention for the 14 patients who completed treatment. **Results:** Responses from the Child and Adolescent Trauma Screen showed a significant decrease in posttraumatic stress symptoms when comparing pre-treatment

scores ($M = 25.64$, $SD = 7.85$) to post-treatment scores (13.57 , $SD = 5.30$), $t(13) = 7.50$, $p < .001$. The mean decrease in scores was 12.07 with a 95% confidence interval ranging from 8.60 to 15.55 . Themes emerging from the focus group centered on home environment, caregiver participation, and systemic topics. Conclusions: Findings suggest that telehealth TF-CBT with young people in care is feasible but relatively low completion rates suggest that barriers to treatment completion remain.

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.
DOI:10.1037/ser0000605

Telehealth services can address many barriers to traditional office-based mental health services. Few studies have assessed youth and caregiver perceptions of and satisfaction with trauma-focused interventions delivered via telemental health. The present study reports data collected using the Telehealth Satisfaction Questionnaire (TSQ), which was developed to measure child and caregiver satisfaction with services, comfort with the telehealth equipment, and barriers to traditional office-based services. Thirteen clinicians delivered home- and school-based Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) via videoconferencing on tablets and computers to 60 child patients (71.7% Latinx, 18.3% Black, and 10.0% non-Hispanic White). Patients and caregivers completed the TSQ at treatment discharge via telephone, videoconferencing, or in-person interviews. There was a high level of satisfaction among patients and caregivers receiving TF-CBT via telemental health. Furthermore, most youth and caregivers felt comfortable using the telehealth equipment from the outset of therapy, and all participants who were not initially comfortable using the equipment reported feeling more comfortable over time. The most common barriers to traditional office-based services were caregiver work schedule (57.7%), distance to mental health clinic (55.8%), and lack of transportation (44.2%). Patients and caregivers expressed a preference for telemental health services if given the option between receiving therapy via videoconferencing versus going to an office-based clinic. Findings indicated telemental health treatment addressed barriers that would have otherwise prevented families from accessing office-based services. The TSQ can be used to help clinics and providers assess patient and caregiver satisfaction with telehealth services in various settings.

Voth Schrag, R. J., Leat, S., Backes, B., Childress, S., & Wood, L. (2023). [“So many extra safety layers:” Virtual service provision and implementing social distancing in interpersonal violence service agencies during COVID-19.](#) *Journal of Family Violence*, 38(2), 227-239. DOI:10.1007/s10896-021-00350-w

The coronavirus pandemic necessitated rapid shifts in approach for service providers working with survivors of interpersonal violence. To reduce the spread of the virus, providers and agencies implemented a rapid and unplanned expansion of virtual services while also developing new protocols to support safe and socially distant in-person services. To understand how these shifts have impacted victim service professionals and the survivors they serve, to provide guidance for on-going efforts, and to inform planning for future public health emergencies, this study asks the question: What approaches did the interpersonal violence workforce use to address social distancing needs during COVID-19? Semi-structured interviews were conducted from July to December 2020 with 33 interpersonal violence service providers from across the United States, and data were analyzed via conventional content analysis with additional steps for data credibility. Findings fall within two primary categories: 1) Technology and Virtual Service Provision; and 2) Social Distancing for In-person Services. Within each category, a number of themes emerged illustrating strengths and challenges of each approach, and the complex web of technological, safety, and public health considerations being balanced in interpersonal violence service agencies. These results provide guidance for the implementation of virtual services in an on-going manner, as well as underscoring the importance of future planning to facilitate effective in-person but physically distant services. There is also a clear need for agencies to support the interpersonal violence workforce to reduce occupational stress and enhance skills and capacities with new forms of services.

Buck, B., Kopelovich, S. L., Tauscher, J. S., Chwastiak, L., & Ben-Zeev, D. (2022). [Developing the workforce of the digital future: Leveraging technology to train community-based mobile mental health specialists.](#) *Journal of Technology in Behavioral Science*, 1-7. DOI:10.1007/s41347-022-00270-6

Challenges in training, dissemination, and implementation have impeded the ability of providers to integrate promising digital health tools in real-world services. There is a need for generalizable strategies to rapidly train real-world providers at scale to support the adoption of digital health. This study describes the development of principles guiding rapid training of community-based

clinicians in the support of digital health. This training approach was developed in the context of an ongoing trial examining implementation strategies for FOCUS, a mobile mental health intervention designed for people with serious mental illness. The SAIL (Simple, Accessible, Inverted, Live) model introduces how digital tools can be leveraged to facilitate rapid training of community agency-based personnel to serve as digital mental health champions, promoters, and providers. This model emphasizes simple and flexible principles of intervention delivery, accessible materials in a virtual learning environment, inverted or “flipped” live training structure, and live consultation calls for ongoing support. These initial insights lay the groundwork for future work to test and replicate generalizable training strategies focused on real-world delivery of digital mental health services. These strategies have the potential to remove key obstacles to the implementation and dissemination of digital health interventions for mental health.

Evans, C.T. (2022). Adlerian play therapy and telemental health counseling during COVID-19: Practical considerations and examples. *The Journal of Individual Psychology*, 78(2), 189-202. DOI:10.1353/jip.2022.0024.

As a result of the worldwide impact of COVID-19, therapists' use of telemental health counseling has increased. Telemental health care was a rapidly growing service before the COVID-19 pandemic and is even more prevalent now. This article examines the use of Adlerian play therapy via a telemental health platform while also providing specific ideas for implementation.

Schulte, C., Zarski, A. C., Sachser, C., Rosner, R., & Ebert, D. D. (2022). [Internet-and mobile-based trauma-focused intervention for adolescents and young adults with posttraumatic stress disorder: A study protocol of a proof-of-concept feasibility study](#). *European Journal of Psychotraumatology*, 13(2). DOI: 10.1080/20008198.2022.2101345

Although evidence-based treatments for posttraumatic stress disorder (PTSD) in adolescents and young adults exist, affected youth do not have sufficient access to these treatments due to structural and attitudinal barriers. Internet- and mobile-based interventions (IMIs) can help fill this healthcare gap, but such programmes have not yet been sufficiently evaluated in youth with PTSD. This study aims to investigate the feasibility of an IMI for youth with PTSD in a one-arm, non-randomised, prospective proof-of-concept feasibility study. We aim to recruit 32 youth between 15 and 21 years old with clinically relevant posttraumatic stress symptoms (CATS \geq 21), who will receive access to the IMI. The IMI consists of nine sessions involving psychoeducation, emotion regulation and

coping skills, written-based imaginal exposure, cognitive restructuring and relapse prevention. Participants will be guided by an eCoach, who provides weekly semi-standardised written feedback on completed sessions and adherence reminders. We will use a formal feasibility framework to assess different dimensions of feasibility: (1) recruitment capability and resulting sample characteristics, (2) data collection procedures and outcome measures, (3) acceptability of the IMI and study procedures, (4) resources and ability to manage and implement the study and IMI and (5) participants' responses to the IMI in terms of symptom severity and satisfaction. Additionally, potential negative effects related to the intervention will be assessed. Assessments take place pre-, mid and post-intervention and at follow-up, including semi-structured clinical telephone interviews for PTSD diagnostics at pre- and post-intervention assessment. Qualitative interviews will be conducted to investigate the youth perspectives on the IMI. This study aims to determine the feasibility of a guided IMI for youth with PTSD to adapt the IMI as closely as possible to youth needs and to inform the design, procedure and safety management of a large-scale efficacy RCT.

Azzopardi, C., Shih, C. S. Y., Burke, A. M., Kirkland-Burke, M., Moddejonge, J. M., Smith, T. D., & Eliav, J. (2021). Supporting survivors of child sexual abuse during the COVID-19 pandemic: An ecosystems approach to mobilizing trauma-informed telemental healthcare. *Canadian Psychology/Psychologie canadienne*. DOI:10.1037/cap0000298

The emergence of the COVID-19 global health pandemic and its associated adversities have had cascading and compounding effects on vulnerable children and families impacted by abuse and trauma. Mandated public health physical distancing measures necessitated an abrupt transition from traditional in-person mental healthcare to virtual mental healthcare. While ushering in new and unexpected opportunities, this shift presented significant challenges and unique implications for trauma-focused pediatric interventions. In this article, we (a) propose an ecological systems framework through which we can better understand the multilevel effects of child sexual abuse in the context of a pandemic; (b) describe our administrative and clinical processes for rapidly mobilizing a trauma-informed model of telemental healthcare for sexually abused children and families in a pediatric hospital setting; and (c) share our clinical observations and experiences delivering therapy via virtual platforms during the early stage of the pandemic through an ecosystems lens. Key learnings inform tailored teletherapy approaches that can be applied in present and future viral outbreaks and sustained in the postpandemic era.

Bunnell, B. E., Kazantzis, N., Paige, S. R., Barrera, J., Thakkar, R. N., Turner, D. & Welch, B. M. (2021) [Provision of care by “Real World” telemental health providers](#). *Frontiers in Psychology*, 12, 653652. DOI:10.3389/fpsyg.2021.653652

Despite its effectiveness, limited research has examined the provision of telemental health (TMH) and how practices may vary according to treatment paradigm. We surveyed 276 community mental health providers registered with a commercial telemedicine platform. Most providers reported primarily offering TMH services to adults with anxiety, depression, and trauma-and stressor-related disorders in individual therapy formats. Approximately 82% of TMH providers reported endorsing the use of Cognitive Behavioral Therapy (CBT) in their remote practice. The most commonly used in-session and between-session (i.e., homework) exercises included coping and emotion regulation, problem solving, mindfulness, interpersonal skills, relaxation, and modifying and addressing core beliefs. CBT TMH providers had a higher odds of using in-session and homework exercises and assigning them through postal mail, email or fax methods, as compared to non-CBT TMH providers. TMH providers, regardless of treatment paradigm, felt that assigning homework was neither easy nor difficult and they believed their patients were somewhat-to-moderately compliant to their assigned exercises. CBT TMH providers also collected clinical information from their patients more often than non-CBT TMH providers. They reported being less satisfied with their method, which was identified most often as paper-based surveys and forms. Overall, TMH providers employ evidence-based treatments to their patients remotely, with CBT TMH providers most likely to do so. Findings highlight the need for innovative solutions to improve how TMH providers that endorse following the CBT treatment paradigm remotely assign homework and collect clinical data to increase their satisfaction via telemedicine.

Qian, F., Hastings, J. F., & Ahmed, R. (2021). [Overcoming telemental health disparities during the COVID-19 pandemic](#). *International Journal for Quality in Health Care*, 33(3), mzab127. DOI:10.1093/intqhc/mzab127

Responding to the coronavirus disease-19 (COVID-19) pandemic health protective strategies has triggered an unprecedented surge in the use of telemental health services globally. An explosive growth in telemental health services has emerged due to remarkable policy and regulatory changes in reimbursements and licensure requirements. However, little is known about disparities related to telemental health services in real-world settings. We aim to present the most recent literature on

telemental health disparities in the USA and propose strategies to improve equity in telemental health services during the pandemic.

Schroeder, S., Roberts, H., Heitkamp, T., Clarke, B., Gotham, H. J., & Franta, E. (2021). Rural mental health care during a global health pandemic: Addressing and supporting the rapid transition to tele-mental health. *Journal of Rural Mental Health, 45*(1), 1–13.
DOI:10.1037/rmh0000169

The adoption of tele-mental health by mental health professionals has been slow, especially in rural areas. Prior to 2020, less than half of mental health agencies offered tele-mental health for patients. In response to the global health pandemic in March of 2020, mental health therapists across the U.S. were challenged to make the rapid shift to tele-mental health to provide patient care. Given the lack of adoption of tele-mental health previously, immediate training in tele-mental health was needed. This article describes collaborative efforts between two mental health technology transfer centers and one addiction technology transfer center in rural regions of the U.S. in response to the rapid adoption of remote technologies to provide mental health services. A learning series of real-time tele-mental health trainings and supplemental materials were offered beginning in March 2020 to support this transition. A weekly learning series covered a variety of topics relevant to telehealth including technology basics, billing, state legislation, and working with children and adolescents. Given the demand of these initial training sessions, additional trainings were requested by agencies outside the regional technology transfer centers. To date, there have been more than 13,000 views of the tele-mental health web page which includes recorded training sessions, handouts, and supplemental tele-mental health materials. The article also provides a summary of the questions and concerns highlighted by the more than 4,500 providers who joined the learning series, noting key rural and urban clinical and structural barriers to providing virtual care.

Smith, T., Norton, A. M., & Marroquin, L. (2021). [Virtual family play therapy: A clinician's guide to using directed family play therapy in telemental health](#). *Contemporary Family Therapy, 1-11*. DOI:10.1007/s10591-021-09612-7

The field of marriage and family therapy was founded by innovators and pioneers, taking the practice of individual psychotherapy and making it systemic. Due to the impact of COVID-19, we now need further advancement by systemic therapists for telemental health services. The purpose

of this paper is to propose recommendations and guidelines for adapting directed family play therapy from the same physical location services to telemental health. The article discusses recommendations for assessment, therapy structure, therapist roles, session preparation, and how to use virtual tools to enhance treatment. Systemic play therapy in a virtual format can work well if therapists make appropriate adjustments and rely on their creativity, high regard for ethics, and innovation.

Solimini, R., Busardò, F. P., Gibelli, F., Sirignano, A., & Ricci, G. (2021). [Ethical and legal challenges of telemedicine in the era of the COVID-19 pandemic](#). *Medicina* (Kaunas, Lithuania), 57(12), 1314. DOI:10.3390/medicina57121314

Background and objective: Telemedicine or telehealth services has been increasingly practiced in the recent years. During the COVID-19 pandemic, telemedicine turned into an indispensable service in order to avoid contagion between healthcare professionals and patients, involving a growing number of medical disciplines. Nevertheless, at present, several ethical and legal issues related to the practice of these services still remain unsolved and need adequate regulation. This narrative review will give a synthesis of the main ethical and legal issues of telemedicine practice during the COVID-19 pandemic. Material and Methods: A literature search was performed on PubMed using MeSH terms: Telemedicine (which includes Mobile Health or Health, Mobile, mHealth, Telehealth, and eHealth), Ethics, Legislation/Jurisprudence, and COVID-19. These terms were combined into a search string to better identify relevant articles published in the English language from March 2019 to September 2021. Results: Overall, 24 out of the initial 85 articles were considered eligible for this review. Legal and ethical issues concerned important aspects such as: informed consent (information about the risks and benefits of remote therapy) and autonomy (87%), patient privacy (78%) and confidentiality (57%), data protection and security (74%), malpractice and professional liability/integrity (70%), equity of access (30%), quality of care (30%), the professional–patient relationship (22%), and the principle of beneficence or being disposed to act for the benefit of others (13%). Conclusions: The ethical and legal issues related to the practice of telehealth or telemedicine services still need standard and specific rules of application in order to guarantee equitable access, quality of care, sustainable costs, professional liability, respect of patient privacy, data protection, and confidentiality. At present, telemedicine services could be only used as complementary or supplementary tools to the traditional healthcare services. Some indications for medical providers are suggested.

Terry, D. L., & Buntoro, S. P. (2021). [Perceived usefulness of telehealth among rural medical providers: Barriers to use and associations with provider confidence](#). *Journal of Technology in Behavioral Science*, 1-5. DOI:10.1007/s41347-021-00215-5

Telehealth has been identified as an efficient and safe way of increasing access to healthcare during the COVID-19 pandemic. Understanding providers' perceptions of telehealth usage in rural communities may help other communities understand barriers and concerns related to implementation, during and post-pandemic. This study aimed to (a) examine rates of telemedicine use among rural providers, (b) determine whether changes in telehealth use in this group were associated with provider confidence and perceived usefulness of technology, (c) compare these providers' perceptions of the "usefulness" of technology prior to and during the COVID-19 pandemic, and (d) examine barriers to implementation and use of telehealth within a rural sample. Six-hundred eighty-six medical providers working at a rural Pennsylvania teaching hospital and associated satellite clinics were surveyed anonymously. Surveys included the Perceived Usefulness of Technology Scale and questions to identify barriers that prohibited the use of telehealth. Of 136 respondents, 86% reported no prior experience using virtual technology for patient encounters. Use of telehealth care increased by 34% following the pandemic. Provider confidence in his/her/their abilities was positively associated with increased use of telehealth and perceived usefulness of technology. Provider-identified barriers to implementation included necessity of physical exams and lack of technological literacy. Both medical providers and patients continue to face various barriers to seamless integration of care. Devising ways to increase self-confidence and efficacy for use of telehealth among providers might be an additional way to increase telehealth use.

Vera San Juan N, Shah P, Schlieff M, Appleton R, Nyikavaranda P, Birken M, Foye, U., Lloyd Evans, B., Morant, N., Needle, J. J., Simpson, A., Lyons, N., Rains, L. S., Dedat, Z., & 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. DOI:10.1371/journal.pone.0257270

The prominence of telemental health, including providing care by video call and telephone, has greatly increased during the COVID-19 pandemic. However, there are clear variations in uptake and acceptability, and concerns that digital exclusion may exacerbate previous inequalities in access to good quality care. Greater understanding is needed of how service users experience

telemental health, and what determines whether they engage and find it acceptable. We conducted a collaborative framework analysis of data from semi-structured interviews with a sample of people already experiencing mental health problems prior to the pandemic. Data relevant to participants' experiences and views regarding telemental health during the pandemic were identified and extracted. Data collection and analysis used a participatory, coproduction approach where researchers with relevant lived experience, contributed to all stages of data collection, analysis and interpretation of findings alongside clinical and academic researchers. The experiences and preferences regarding telemental health care of the forty-four participants were dynamic and varied across time and settings, as well as between individuals. Participants' preferences were shaped by reasons for contacting services, their relationship with care providers, and both parties' access to technology and their individual preferences. While face-to-face care tended to be the preferred option, participants identified benefits of remote care including making care more accessible for some populations and improved efficiency for functional appointments such as prescription reviews. Participants highlighted important challenges related to safety and privacy in online settings, and gave examples of good remote care strategies they had experienced, including services scheduling regular phone calls and developing guidelines about how to access remote care tools. Participants in our study have highlighted advantages of telemental health care, as well as significant limitations that risk hindering mental health support and exacerbate inequalities in access to services. Some of these limitations are seen as potentially removable, for example through staff training or better digital access for staff or service users. Others indicate a need to maintain traditional face-to-face contact at least for some appointments. There is a clear need for care to be flexible and individualised to service user circumstances and preferences. Further research is needed on ways of minimising digital exclusion and of supporting staff in making effective and collaborative use of relevant technologies.

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*, 0(0).
DOI:10.1177/1357633X211025943

Introduction: This study investigated how mental health providers' use of telemedicine has changed since the coronavirus disease (COVID) 2019 pandemic and their expectations for continuing to use it once the pandemic ends. Methods: A 15-min online survey was completed by

175 practicing and licensed telemental health providers who use telemedicine. In addition to personal and professional demographic items, the survey included items about the frequency of telemedicine use, proportion of caseload served by telemedicine, comfort using telemedicine before and during the COVID-19 pandemic, and expectations to use telemedicine after the pandemic ends. A series of χ^2 analyses, an independent samples t-test, and analyses of variance were conducted. Results: The pandemic resulted in a greater proportion of telemental health providers using telemedicine on a daily basis (17% before and 40% during the pandemic; $p < 0.01$) and serving more than half of their caseload remotely (9.1% before and 57.7% during the pandemic; $p < 0.05$). Also, there was a statistically significant increase in their comfort using telemedicine before and during the pandemic ($p < 0.001$). Providers reported expecting to use telemedicine more often after the pandemic ends ($M = 3.35$; $SD = 0.99$). Expectations to provide telemental health services after the pandemic were greater for mental health counselors, providers who practiced in rural regions, and providers who served patients through out-of-pocket payments. Discussion: Telemental health providers use telemedicine daily as a result of the COVID-19 pandemic, with expectations of continuing to use telemedicine in practice after the pandemic. This expectation is more prominent in certain segments of providers and warrants further investigation.

Batastini, A. B., Jones, A. C. T., Lester, M. E., & Davis, R. M. (2020). Initiation of a multidisciplinary telemental health clinic for rural justice-involved populations: Rationale, recommendations, and lessons learned. *Journal of Community Psychology, 48*(7), 2156–2173. DOI:10.1002/jcop.22424

Videoconferencing technology (VCT) is rapidly increasing in the mental healthcare industry and is becoming an attractive option to reach justice-involved populations. This paper first highlights the need for alternative service delivery solutions and reviews current literature on the use of VCT for correctional clients. We then outline the specific timeline, procedures, and barriers associated with the initiation of a virtual, multidisciplinary telemental health clinic for jailed and community-released offenders in a rural Mississippi county aimed at reducing criminogenic and psychiatric risks. Finally, we summarize generalizable recommendations for establishing community partnerships, developing structural and logistical processes, and delivering VCT while accounting for unique client factors and integrating evidence-based intervention strategies. We hope other community leaders will feel empowered to initiate similar programs that address needs within in their own jurisdictions.

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), e12311. DOI:10.1111/cpsp.12311

Telemental health conducted via videoconferencing (TMH-V) has the potential to improve access to care, and providers' attitudes toward this innovation play a crucial role in its uptake. This systematic review examined providers' attitudes toward TMH-V through the lens of the unified theory of acceptance and use of technology (UTAUT). Findings suggest that providers have positive overall attitudes toward TMH-V despite describing multiple drawbacks. Therefore, the relative advantages of TMH-V, such as its ability to increase access to care, may outweigh its disadvantages, including technological problems, increased hassle, and perceptions of impersonality. Providers' attitudes may also be related to their degree of prior TMH-V experience, and acceptance may increase with use. Limitations and implications of findings for implementation efforts are discussed.

Gurwitch, R. H., Salem, H., Nelson, M. M., & Comer, J. S. (2020). [Leveraging parent-child interaction therapy and telehealth capacities to address the unique needs of young children during the COVID-19 public health crisis](#). *Psychological Trauma: Theory, Research, Practice, and Policy*, 12(S1), S82-S84. DOI:10.1037/tra0000863

COVID-19 and related efforts to mitigate its spread have dramatically transformed the structure and predictability of modern childhood, resulting in growing concerns children may be particularly vulnerable to serious mental health consequences. Worldwide stay-at-home directives and emergency changes in healthcare policy and reimbursement have smoothed the trail for broad implementation of technology-based remote mental health services for children. Parent-Child Interaction Therapy (PCIT) is particularly well-positioned to address some of the most pressing child and parental needs that arise during stressful times, and telehealth formats of PCIT, such as Internet-delivered PCIT (iPCIT), have already been supported in controlled trials. This commentary explores PCIT implementation during the COVID-19 public health crisis and the challenges encountered in the move toward Internet-delivered services.

Hilty, D., Chan, S., Torous, J., Luo, J., & Boland, R. (2020). [A framework for competencies for the use of mobile technologies in psychiatry and medicine: scoping review](#). *JMIR mHealth and uHealth*, 8(2), e12229. DOI:10.2196/12229

This paper sought out competencies for mobile technologies and/or an approach to define them. A scoping review was conducted to answer the following research question, “What skills are needed for clinicians and trainees to provide quality care via mHealth, have they been published, and how can they be made measurable and reproducible to teach and assess them?” The review was conducted in accordance with the 6-stage scoping review process starting with a keyword search in PubMed/Medical Literature Analysis and Retrieval System Online, APA PsycNET, Cochrane, EMBASE, PsycINFO, Web of Science, and Scopus. The literature search focused on keywords in 4 concept areas: (1) competencies, (2) mobile technologies, (3) telemedicine mode, and (4) health. Moreover, 2 authors independently, in parallel, screened the search results for potentially relevant studies based on titles and abstracts. The authors reviewed the full-text articles for final inclusion based on inclusion/exclusion criteria. Inclusion criteria were keywords used from concept area 1 (competencies) and 2 (mobile technologies) and either 3 (telemedicine mode) or 4 (health). Exclusion criteria included, but were not limited to, keywords used from a concept area in isolation, discussion of skills abstractly, outline or listing of what clinicians need without detail, and listing immeasurable behaviors. From a total of 1232 results, the authors found 78 papers eligible for a full-text review and found 14 papers directly relevant to the 4 key concepts. Although few studies specifically discussed skills, the majority were clinical studies, and the literature included no lists of measurable behaviors or competency sets for mobile technology. Therefore, a framework for mobile technology competencies was built according to the review, expert consensus, and recommendations of the Institute of Medicine’s Health Professions Education Summit and Accreditation Council of Graduate Medical Education framework. This framework borrows from existing competency framework domains in telepsychiatry and social media (patient care, medical knowledge, practice-based learning and improvement, systems-based practice, professionalism, and interpersonal skills and communication) and added domains of mHealth clinical decision support, device/technology assessment/selection, and information flow management across an electronic health record platform. mHealth Asynchronous components require additional traditional learning, teaching, supervisory and evaluation practices. Interactive curricula with case-, problem-, and system-based teaching may help faculty focus on decision

making and shape skills and attitudes to complement clinical exposure. Research is needed on how to customize implementation and evaluation of mHealth competencies and to ensure skill development is linked to the quality of care. This will require the management of organizational change with technology and the creation of a positive electronic culture in a complex policy and regulatory environment.

Matheson, B. E., Bohon, C., & Lock, J. (2020). [Family-based treatment via videoconference: Clinical recommendations for treatment providers during COVID-19 and beyond.](#) *International Journal of Eating Disorders*, 53(7), 1142-1154.
DOI:10.1002/eat.23326

The necessity to employ distance-based methods to deliver on-going eating disorder care due to the novel coronavirus (COVID-19) pandemic represents a dramatic and urgent shift in treatment delivery. Yet, TeleHealth treatments for eating disorders in youth have not been adequately researched or rigorously tested. Based on clinical experience within our clinic and research programs, we aim to highlight the common challenges clinicians may encounter in providing family-based treatment (FBT) via TeleHealth for children and adolescents with anorexia nervosa and bulimia nervosa. We also discuss possible solutions and offer practical considerations for providers delivering FBT in this format. Additional research in TeleHealth treatment for eating disorders in youth may lead to improved access, efficiency, and effectiveness of FBT delivered via videoconferencing.

Martin, J. N., Millán, F., & Campbell, L. F. (2020). [Telepsychology practice: Primer and first steps.](#) *Practice Innovations*, 5(2), 114-127. DOI:10.1037/pri0000111

Telepsychology is being increasingly assimilated into professional practice. The knowledge and skills necessary for competent practice are being introduced into training programs; however, psychologists who are practicing independently have no formal means to prepare for this expansion in their scope of practice. This primer for practice leads readers through the clinical, technical, and logistical steps necessary for preparation, initiation, and participation in telepsychology. Topics discussed include overcoming barriers and increasing one's opportunities (e.g., geographical, financial, transportation); competencies, standards of care, and ethical considerations (e.g., adaptation of informed consent and confidentiality agreements, electronic recordkeeping and storage); what one needs to know for implementation (e.g., Health Insurance

Portability and Accountability Act and the Health Information Technology for Economic and Clinical Health Act); interjurisdictional practice (e.g., legal status); action steps; and resources. Psychologists beginning to incorporate technology into their practices as well as those with technical competence will note several features that lend guidance to the basic elements of practice: (a) Risk management tips are offered throughout the article, (b) an informed consent checklist for self-assessment is presented, and (c) a checklist for hardware disposal and software removal is detailed. Practitioners who are curious about telepsychology but do not know how to inquire or where to begin are offered clear direction and important information on how to incorporate telepsychology into existing practices or to begin a purely telepsychological practice. (PsycInfo Database Record © 2021 APA, all rights reserved)

McClellan, M. J., Florell, D., Palmer, J., & Kidder, C. (2020). Clinician telehealth attitudes in a rural community mental health center setting. *Journal of Rural Mental Health, 44*(1), 62-73. DOI:10.1037/rmh0000127

Telehealth-based services in community mental health settings are on the rise and growth is expected to continue. Negative clinician attitudes toward telehealth have been identified as a key barrier to overall telehealth acceptance and implementation. The present study examined rural clinical mental health staff members' attitudes toward telehealth. One hundred clinicians participated in a mixed-methods, Internet-based survey. Eighty-nine percent of respondents reported a favorable or neutral opinion of telehealth and 100% of participants reported their agency provided one or more clinical services via telehealth. Clinicians identified telehealth-related concerns about their ability to establish therapeutic alliance, software and equipment usability, associated costs, whether telehealth-delivered services were equivalent to face-to-face treatment, and HIPAA. These concerns were in line with previous research and all represent areas where additional training or knowledge could potentially address clinician apprehension. We found a strong positive correlation, $r = .66$, $p < .01$ between telehealth knowledge and telehealth experience. Telehealth knowledge predicted telehealth opinion ($\beta = .430$, $R^2 = .19$, $p < .01$) and an agency's technological capability to provide services via telehealth predicted clinicians' willingness to consider providing services via telehealth ($\beta = .390$, $R^2 = .15$, $p < .05$). Researchers and trainers should focus on increasing knowledge about the effectiveness of telehealth and providing clinicians with safe opportunities to gain comfort and competency with the technology

needed to provide these types of specialized services. (PsycInfo Database Record © 2020 APA, all rights reserved)

Nittari, G., Khuman, R., Baldoni, S., Pallotta, G., Battineni, G., Sirignano, A., Amenta, F., & Ricci, G. (2020). [Telemedicine practice: Review of the current ethical and legal challenges](#). *Telemedicine and e-Health*, 26(12), 1427-1437. DOI:10.1089/tmj.2019.0158

Telemedicine involves medical practice and information and communications technology. It has been proven to be very effective for remote health care, especially in areas with poor provision of health facilities. However, implementation of these technologies is often hampered by various issues. Among these, ethical and legal concerns are some of the more complex and diverse ones. In this study, an analysis of scientific literature was carried out to identify the ethical and legal challenges of telemedicine. English literature, published between 2010 and 2019, was searched on PubMed, Scopus, and Web of Science by using keywords, including “Telemedicine,” “Ethics,” “Malpractice,” “Telemedicine and Ethics,” “Telemedicine and Informed consent,” and “telemedicine and malpractice.” Different types of articles were analyzed, including research articles, review articles, and qualitative studies. The abstracts were evaluated according to the selection criteria, using the Newcastle–Ottawa Scale criteria, and the final analysis led to the inclusion of 22 articles. From the aforementioned sample, we analyzed elements that may be indicative of the efficacy of telemedicine in an adequate time frame. Ethical aspects such as informed consent, protection data, confidentiality, physician’s malpractice, and liability and telemedicine regulations were considered. Our objective was to highlight the current status and identify what still needs to be implemented in tele medicine with respect to ethical and legal standards. Gaps emerged between current legislation, legislators, service providers, different medical services, and most importantly patient interaction with his/her data and the use of that data.

Payne, L., Flannery, H., Kambakara Gedara, C., Daniilidi, X., Hitchcock, M., Lambert, D., ... & Christie, D. (2020). [Business as usual? Psychological support at a distance](#). *Clinical Child Psychology and Psychiatry*, 25(3), 672-686. DOI:10.1177/1359104520937378

The impact of COVID-19 has challenged the long accepted ‘norm’ in delivery of psychological therapy. Public policies designed to reduce transmission have made it extremely difficult to meet with service-users safely in the traditional face-to-face context. E-therapies have existed in theory

and practice since technological progress has made them possible. They can offer a host of advantages over face-to-face equivalents, including improved access, greater flexibility for service-users and professionals, and cost savings. However, despite the emerging evidence and anticipated positive value, implementation has been slower than anticipated. Concerns have been raised by service-users, clinicians, and public health organisations, identifying significant barriers to the widespread use of e-therapies. In the current climate, many clinicians are offering e-therapies for the first time, without prior arrangement or training, as the only viable option to continue to support their clients. This paper offers a clinically relevant review of the e-therapies literature, including effectiveness and acceptability dilemmas and challenges that need to be addressed to support the safe use and growth of e-therapies in psychology services. Further research is needed to better understand what might be lost and what gained in comparison to face-to-face therapy, and for which client groups and settings it might be most effective.

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. DOI:10.1016/j.chiabu.2020.104698

The ongoing COVID-19 pandemic has led to unprecedented disruptions and stress in the lives of children and families internationally. Heightened family stress and turmoil can increase risk for, and exacerbate, child maltreatment. As a result, child maltreatment experts are concerned that there will be an influx of children requiring trauma assessment and treatment during and after COVID-19. As physical distancing measures have been implemented and will likely persist into 2021, organizations providing trauma treatment to children and their families have had to rapidly pivot to telemental health to maintain service delivery with clients. While the benefits of telemental health have been identified, including reduced barriers to access, increased cost effectiveness, and broad availability of services, there are unique limitations to its implementation within a child maltreatment population, such as challenges with attention and emotion regulation skills, difficulties identifying dissociative symptoms, and increased time with perpetrators of abuse due to shelter in place orders. These limitations are exacerbated for children and families who are most marginalized and facing the highest levels of social and economic barriers. Lack of access to reliable technology, lack of a private or confidential space for sessions, and reluctance to process trauma in the absence of a safe environment, are all barriers to conducting effective trauma

treatment over telemental health. This article discusses both the benefits and barriers to telemental health in a child maltreatment population and offers considerations for child trauma service provision, program development, and policy during and post the COVID-19 pandemic.

Sharma, A., Sasser, T., Schoenfelder Gonzalez, E., Vander Stoep, A., & Myers, K. (2020). Implementation of home-based telemental health in a large child psychiatry department during the COVID-19 crisis. *Journal of Child and Adolescent Psychopharmacology*, 30(7), 404-413. DOI:10.1089/cap.2020.0062

Telemental health (TMH) is not well described for mental health service delivery during crises. Most child and adolescent psychiatry training programs have not integrated TMH into their curricula and are ill equipped to respond during crises to their patients' needs. In this study, we present the implementation of a home-based TMH (HB-TMH) service during the COVID-19 pandemic. We describe the technological, administrative, training, and clinical implementation components involved in transitioning a comprehensive outpatient child and adolescent psychiatry program to a HB-TMH virtual clinic. The transition was accomplished in 6 weeks. Most in-clinic services were rapidly moved off campus to the home. Owing to challenges encountered with each implementation component, phone sessions bridged the transition from in-clinic to reliable virtual appointments. Within 3 weeks (March 20, 2020) of planning for HB-TMH, 67% of all appointments were conducted at home, and within 4 weeks (March 27, 2020), 90% were conducted at home. By week 6 (April 3, 2020), reliable HB-TMH appointments were implemented. The COVID-19 pandemic crisis created the opportunity to innovate a solution to disrupted care for our established patients and to create a resource for youth who developed problems during the crisis. Our department was experienced in providing TMH services that facilitated the transition to HB-TMH, yet still had to overcome known and unanticipated challenges. Our experience provides a roadmap for establishing a HB-TMH service with focus on rapid implementation. It also demonstrates a role for TMH during (rather than after) future crises when usual community resources are not available.

Stewart, R. W., Orenco-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 posttraumatic stress: A community-based, open pilot trial of trauma-focused cognitive-behavioral therapy](#). *Journal of Psychotherapy Integration*, 30(2), 274. DOI:10.1037/int0000225

Telepsychotherapy (also referred to as telehealth or telemental health), the use of videoconferencing to deliver psychotherapy services, offers an innovative way to address significant gaps in access to care and is being used to deliver a variety of treatments for youth. Although recent research has supported the effectiveness of telehealth delivery of a variety of interventions for children, the literature has focused very little on childhood posttraumatic stress disorder. This pilot study examined the feasibility and potential effectiveness of trauma-focused cognitive-behavioral therapy (TF-CBT) delivered via telepsychotherapy in community-based locations of either schools or patient homes. Telepsychotherapy treatment was delivered to 70 trauma-exposed youth in 7 underserved communities. Of these, 88.6% completed a full course of TF-CBT and 96.8% of these treatment completers no longer met diagnostic criteria for a trauma-related disorder at posttreatment. The results observed in this pilot evaluation are promising and provide preliminary evidence of the feasibility and effectiveness of this novel treatment format. The COVID-19 global pandemic has resulted in an unprecedented need to rethink how mental health services are delivered, which is particularly applicable to high base rate conditions related to posttraumatic stress. Given the existing network of nationally certified TF-CBT therapists, and many international TF-CBT therapists, these findings suggest the potential for providing effective and accessible telepsychotherapy intervention during this public health crisis (as well as those that will occur in the future). Results demonstrated clinically meaningful symptom change posttreatment, with large effect sizes evident for both youth- and caregiver-reported reduction in posttraumatic stress disorder symptoms. The results

Davidson, T. M., Bunnell, B. E., Saunders, B. E., Hanson, R. F., Danielson, C. K., Cook, D., Chu, B. C., Dorsey, S., Adams, Z. W., Andrews III, A. R., Walker, J. H., Soltis, K. E., Cohen, J. A., Deblinger, E., & Ruggiero, K. J. (2019). Pilot evaluation of a tablet-based application to improve quality of care in child mental health treatment. *Behavior Therapy, 50*(2), 367-379. DOI:10.1016/j.beth.2018.07.005

Mental health systems need scalable solutions that can reduce the efficacy–effectiveness gap and improve mental health outcomes in community mental health service settings. Two major challenges to delivery of high-quality care are providers’ fidelity to evidence-based treatment models and children’s and caregivers’ engagement in the treatment process. We developed a novel, tablet-based application designed to enhance via technology the quality of delivery of trauma-focused cognitive-behavioral therapy (TF-CBT). We piloted its use in four community mental health service organizations using a blocked randomized controlled trial to examine the feasibility of implementing tablet-facilitated TF-CBT versus standard TF-CBT with 13 providers and 27 families. Provider fidelity and child engagement in treatment were observationally measured via session audio recording. Parent and child perceptions of the tablet application were assessed using structured interviews and mixed-method analyses. Providers actively and appropriately used tablet TF-CBT to facilitate treatment activities. Providers and families expressed high satisfaction with its use, demonstrating acceptability of this approach. Youth and caregivers in both conditions reported high alliance with their providers. Overall, we found that tablet-facilitated treatment is accepted by providers and families and may be integrated into mental health treatment with minimal training. Further study is needed to examine the extent to which technology-based applications may enhance the reach, quality, and clinical outcomes of mental health treatment delivered to children and families.

Hughes, M. C., Gorman, J. M., Ren, Y., Khalid, S., & Clayton, C. (2019). Increasing access to rural mental health care using hybrid care that includes telepsychiatry. *Journal of Rural Mental Health, 43*(1), 30-37. DOI:10.1037/rmh0000110

There is a lack of access to mental health care in rural areas of the United States. One potential strategy for increasing access and improving health outcomes for rural dwellers is offering hybrid psychiatric care, a combination of in-person and telepsychiatry services. Although prior research has shown telepsychiatry can help overcome access barriers, there is a lack of research on the use of hybrid care for patients in rural areas following an inpatient admission or an emergency

department visit—a time when many patients are in high need of follow-up care. The aim of this project was to examine process and outcome measures associated with mental health to determine the effectiveness of delivering hybrid care to Medicaid-covered patients in rural Missouri following an inpatient admission or an emergency department visit. Data from 242 patients were analyzed using a retrospective quasi-experimental design. The group with hybrid telepsychiatry plus in-person visits had improved timeliness of care and increased number of total outpatient encounters compared to the group with in-person visits only, indicating hybrid care may be more effective than in-person visits alone are. The current study suggests that offering telepsychiatry can help close the gap in access to mental health care between rural and urban populations, particularly during the time after an inpatient admission or an emergency department visit. As telepsychiatry service options continue to grow, making this delivery mode available to rural populations may have a positive impact on mental health outcomes in the United States.

Jordan, S. E., & Shearer, E. M. (2019). An exploration of supervision delivered via clinical video telehealth (CVT). *Training and Education in Professional Psychology, 13*(4), 323-330.
DOI:10.1037/tep0000245

A growing literature base supports the use of telemental health (TMH) as an effective platform for psychological interventions; however, the literature examining the use of telesupervision is limited. Mirroring TMH, telesupervision is potentially advantageous and may offer benefits above and beyond in-person supervision to include increased accessibility of training, reduced cost for travel and improved flexibility of scheduling, and increased access for peer consultation. These benefits may contribute to greater diversity of training and supervision experiences for trainees as well. In this evidence-based practice project, former psychology trainees (N = 12) at 1 Veterans Affairs Health Care System (VA) site were invited to complete an anonymous online questionnaire regarding their supervision experiences utilizing both quantitative and qualitative items to explore trainee perceptions of telesupervision implementation, satisfaction, and efficacy. Both the qualitative and quantitative data suggest equivalence between the telesupervision and in-person supervision experiences with regard to rapport with supervisors and focus on clinical goals and tasks. The qualitative data provide additional insight into the trainee perspective on the benefits related to engaging in telesupervision, challenges related to engaging in telesupervision, and components of successful telesupervision. Telesupervision has the potential to contribute to the

sustainability of rural health training programs, to increase access to needed mental health care in geographical areas of mental health shortage, and to allow trainees to receive supervision from supervisors who are culturally competent and expert in providing care to diverse patient populations. This article offers suggestions for optimal practice of telesupervision and discusses implications for training programs going forward.

Pignatiello, A., Stasiulis, E., Solimine, C., Ayad, O., & Boydell, K. M. (2019). [Lessons learned in a physician referral to pediatric telemental health services program](#). *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, 28(3), 99-104.

This study explores the physician referral and engagement process of a pediatric telemental health program based in a large urban teaching children's hospital, and identifies the processes, strengths and challenges from the perspectives of Primary Care Physicians (PCPs) and telepsychiatrist consultants. A mixed methods approach was used. This included an online survey completed by 43 PCPs in Ontario rural communities who had referred patients to the telemental health program. Qualitative interviews were conducted with 11 child/adolescent telepsychiatrists who provide consultations via teleconferencing. The majority of PCPs (61%) reported somewhat to moderate satisfaction with referral experiences. Challenges identified by physicians were related to communication and administration issues including: lack of timely follow-up appointments and continuity of care; lengthy referral forms; and recommendations for mental health services not accessible in their communities. Similarly, psychiatrist consultants expressed frustration with the sparse information they received from referring physicians and most significantly, the absence of appropriate service providers/professionals during the consultation to provide collateral information and ensure uptake of recommendations. Telemental health programs provide a valuable service to PCPs and their child and youth clients that could be significantly enhanced with a different consultation model. Such models of service delivery require protocols to educate PCPs, improve communication and information sharing and establish clear expectations between PCPs and telepsychiatry consultants.

Corralejo, S. M., & Rodríguez, M. M. D. (2018). [Technology in parenting programs: A systematic review of existing interventions](#). *Journal of Child and Family Studies*, 27(9), 2717-2731. DOI:10.1007/s10826-018-1117-1

Behavioral parent training is an evidence-based intervention that reduces child problem behavior. Unfortunately, there are notable disparities in access to and use of evidence-based parenting interventions, including BPT. One way to address the service gap is through technology-based parenting interventions. The purpose of this systematic review is to identify the populations targeted in technology-based parenting interventions, the effectiveness of these interventions, and areas and populations where future research is warranted. A search of three databases yielded 31 articles that met inclusion criteria. We included articles if they (a) were treatment outcome studies using web-based interventions or (b) discussed methodologies or models pertaining to web-based interventions, (c) specified demographic information such as race, ethnicity, and SES, and (d) were published in English or Spanish. We coded 25 treatment outcome studies and six feasibility studies. Technology-based parenting interventions have successfully improved parenting variables such as parent knowledge, behavior, and self-efficacy. Yet the vast majority of these interventions are validated with White American families and lack adaptations that may make them more accessible to underserved populations. As the burgeoning area of technology-based interventions continues to grow, researchers should consider underserved populations and appropriate cultural adaptations that could reduce mental health disparities and increase the scope of evidence-based interventions.

Margolis, K., Kelsay, K., Talmi, A., McMillan, H., Fraley, M. C., & Thomas, J. F. F. (2018). A multidisciplinary, team-based teleconsultation approach to enhance child mental health services in rural pediatrics. *Journal of Educational and Psychological Consultation*, 28(3), 342-367. DOI:10.1080/10474412.2018.1431549

Mental health services for rural youth are extremely limited, especially given the national shortage of child and adolescent psychiatrists (CAPs). Patient-centered primary care medical homes (PCMHs) are often their only available portal of care, yet high-quality PCMH integrated models of behavioral health that include a CAP are rare. This manuscript presents a unique multidisciplinary teleconsultation model wherein integrated behavioral systems consultation was employed to increase access to integrated behavioral health services. Common referrals included complex presentations outside of provider comfort range or medication and diagnostic

clarification. Primary concerns were symptoms of ADHD, autism spectrum disorder, anxiety, and depression. Recommendations included referral to outpatient therapy, further coordination with the medical team, and follow-up with the CAP. Providers noted access to care, specialized quality of care, provider support, and enhancing principles of the PCMH as strengths of the teleconsultation. Challenges included patient engagement, scheduling/availability, challenges with the teleconsultation process, and provider-level barriers.

Stavas, N., Shea, J., Keddem, S., Wood, J., Orji, W., Cullen, C., & Scribano, P. (2018). Perceptions of caregivers and adolescents of the use of telemedicine for the child sexual abuse examination. *Child Abuse & Neglect*, 85, 47-57.
DOI:10.1016/j.chiabu.2018.08.009

Childhood sexual abuse is a common cause of morbidity and mortality. All victims should receive a timely comprehensive medical exam. Currently there is a critical shortage of child abuse pediatricians who can complete the comprehensive child sexual abuse examination. Telemedicine has emerged as an innovative way to provide subspecialty care to this population. Despite the growing popularity of telemedicine, no literature exists describing patient and caregiver perceptions of telemedicine for this sensitive exam. To explore caregiver and adolescent perspectives of the use of telemedicine for the child sexual abuse examination and discover factors that drive satisfaction with the technology. Caregivers and adolescents who presented for a child sexual abuse medical evaluation at our county's child advocacy center. We completed semi structured interviews of 17 caregivers and 10 adolescents. Guided by the Technology Acceptance Model interviews assessed perceptions about: general feelings with the exam, prior use of technology, feelings about telemedicine, and role of the medical team. Interviews were audio-recorded, transcribed, coded and analyzed using content analysis with constant comparative coding. Recruitment ended when thematic saturation was reached. There was an overwhelming positive response to telemedicine. Participants reported having a good experience with telemedicine regardless of severity of sexual abuse or prior experience with technology. Behaviors that helped patients and caregivers feel comfortable included a clear explanation from the medical team and professionalism demonstrated by those using the telemedicine system. Telemedicine was widely accepted by adolescents and caregivers when used for the child sexual abuse examination.

Comer, J. S., Furr, J. M., Miguel, E. M., Cooper-Vince, C. E., Carpenter, A. L., Elkins, R. M., Kerns, C. E., Cornacchio, D., Chou, T., Coxe, S., DeSerisy, M., Sanchez, A. L., Golik, A., Martin, J., Myers, K. M., & Chase, R. (2017). Remotely delivering real-time parent training to the home: An initial randomized trial of Internet-delivered parent-child interaction therapy (I-PCIT). *Journal of Consulting and Clinical Psychology, 85*(9), 909-917. DOI:10.1037/ccp0000230

Remote technologies are increasingly being leveraged to expand the reach of supported care, but applications to early child-behavior problems have been limited. This is the first controlled trial examining video-teleconferencing to remotely deliver behavioral parent training to the home setting with a live therapist. Method: Racially/ethnically diverse children ages 3-5 years with disruptive behavior disorders, and their caregiver(s), using webcams and parent-worn Bluetooth earpieces, participated in a randomized trial comparing Internet-delivered parent-child interaction therapy (I-PCIT) versus standard clinic-based PCIT (N = 40). Major assessments were conducted at baseline, midtreatment, posttreatment, and 6-month follow-up. Linear regressions and hierarchical linear modeling using maximum-likelihood estimation were used to analyze treatment satisfaction, diagnoses, symptoms, functioning, and burden to parents across conditions. Results: Intent-to-treat analyses found 70% and 55% of children treated with I-PCIT and clinic-based PCIT, respectively, showed "treatment response" after treatment, and 55% and 40% of children treated with I-PCIT and clinic-based PCIT, respectively, continued to show "treatment response" at 6-month follow-up. Both treatments had significant effects on children's symptoms and burden to parents, and many effects were very large in magnitude. Most outcomes were comparable across conditions, except that the rate of posttreatment "excellent response" was significantly higher in I-PCIT than in clinic-based PCIT, and I-PCIT was associated with significantly fewer parent-perceived barriers to treatment than clinic-based PCIT. Both treatments were associated with positive engagement, treatment retention, and very high treatment satisfaction. Conclusion: Findings build on the small but growing literature supporting the promising role of new technologies for expanding the delivery of behavioral parent training.

El-Miedany, Y. (2017). [Telehealth and telemedicine: How the digital era is changing standard health care](#). *Smart Homecare Technology and Telehealth, 4*, 43-51. DOI:10.2147/SHTT.S116009

The revolution in digital technology has transformed our lives, and electronic advances are expected to expand. At the same time, personal attitudes toward technology developments and

digital health care are also changing positively. Younger generations and older adults have started to enjoy the outcomes of the recent technology progresses. Soon, smart gadgets are expected to play an important role in health care and day-to-day management of the patients, and hence will be able to renovate medical services and facilitate real improvement in the patients' self-management. The challenge is how to make most of these technical advances patient friendly, and explore ways to avoid the risks, particularly in regard to privacy. This article discusses the growing role of telehealth in standard health care, the facility and impact of using digital technology in day-to-day patients' management and the best evidence available from those using digital technology on the front line.

Myers, K., Nelson, E. L., Rabinowitz, T., Hilty, D., Baker, D., Barnwell, S. S., ... & Bernard, J. (2017). American telemedicine association practice guidelines for telemental health with children and adolescents. *Telemedicine and e-Health*, 23(10), 779-804.
DOI:10.1089/tmj.2017.0177

Stewart, R. W., Orenco-Aguayo, R. E., Cohen, J. A., Mannarino, A. P., & de Arellano, M. A. (2017). A pilot study of trauma-focused cognitive-behavioral therapy delivered via telehealth technology. *Child Maltreatment*, 22(4), 324-333.
DOI:10.1177/1077559517725403

Significant barriers exist in access to evidence-based, trauma-focused treatment among youth from economically disadvantaged backgrounds, those living in rural areas, and belonging to a racial and ethnic minority group, despite the high prevalence rates of trauma exposure among these underserved groups. The present study is proof-of-concept pilot of trauma-focused cognitive-behavioral therapy (TF-CBT) delivered to underserved trauma-exposed youth (N = 15) via telehealth technology (i.e., via one-on-one videoconferencing), aimed at addressing barriers in access to TF treatment. This pilot study provides preliminary evidence of the ability to successfully deliver TF-CBT via a telehealth delivery format. Results demonstrated clinically meaningful symptom change posttreatment (large effect sizes for youth-reported ($d = 2.93$) and caregiver-reported ($d = 1.38$) reduction in posttraumatic stress disorder symptoms), with no treatment attrition (0% dropout). These findings are promising in showing treatment effects that are comparable with TF-CBT delivered in an in-person, office-based setting and an important first step in determining how to best address the mental health needs of trauma-exposed youth with barriers in access to care.

Barnett, J. E., & Kolmes, K. (2016). The practice of tele-mental health: Ethical, legal, and clinical issues for practitioners. *Practice Innovations, 1*(1), 53-66.
DOI:10.1037/pri0000014

The integration of various technologies into clinical services and the provision of tele-mental health can help practices run more smoothly and efficiently, increase access to needed treatment for individuals in remote areas, and expand the reach of the professional services psychotherapists offer. While this brings many potential benefits to practitioners and clients alike, the practice of tele-mental health also brings a number of ethical, legal, and clinical challenges. These are addressed and highlighted through representative case examples. Ethics issues discussed include determining the appropriateness of tele-mental health services for clients, informed consent, confidentiality, clinical and technological competence, and emergency procedures and safeguards. Legal issues addressed include interjurisdictional practice and the role of laws in the jurisdictions where the practitioner and client each are located. Relevant ethics standards and professional practice guidelines are reviewed, and specific recommendations for the ethical, legal, and clinically effective practice of tele-mental health are provided. (PsycINFO Database Record © 2016 APA, all rights reserved)

Comer, J. S., & Myers, K. (2016). [Future directions in the use of telemental health to improve the accessibility and quality of children's mental health services](#). *Journal of Child and Adolescent Psychopharmacology, 26*(3), 296-300. DOI:10.1089/cap.2015.0079

This concluding commentary offers a brief overview of progress to date in providing telemental health services to children, and then offers a critical vision for future research needed to provide the rigorous empirical foundation for telemental health to be considered a well-established format for the delivery of children's mental health services. We review how recent years have witnessed advances in the science and practice of children's telemental health, and the articles in this special series collectively offered a critical step forward in the establishment of a guiding literature to provide informed direction for child providers incorporating remote technologies to extend their practices. Researchers must be cautious not to develop a “horse race” mentality and a misguided search for a decisive “winner” regarding the ultimate effectiveness of child telemental health versus traditional clinic-based treatments. Instead, research efforts are needed to examine key mediators and moderators of telemental health treatment response. The question should not be simply whether telemental health strategies are supported, but rather when, under what

circumstances, and for whom telemental health formats may be most indicated. Barriers to the continued evolution of children's telemental health are discussed, and we consider issues of telemental health reimbursement and matters of cross-state professional jurisdiction. Continued efforts are needed in order to fully actualize the potential of children's telemental health to optimize the quality and transform the accessibility of mental health services for all children, regardless of income or geography.

Goldstein, F., & Glueck, D. (2016). Developing rapport and therapeutic alliance during telemental health sessions with children and adolescents. *Journal of Child and Adolescent Psychopharmacology*, 26(3), 204-211. DOI:10.1089/cap.2015.0022

The purpose of this study was to describe the special considerations for building rapport and establishing a therapeutic alliance when conducting mental health evaluations for children and adolescents via videoconferencing. The authors review the literature and describe their experience in conducting mental health evaluations, developing rapport, and establishing a therapeutic alliance during telemental health practice. Clinical need and shortages of clinicians with expertise in evaluating mental conditions for children and adolescents in underserved communities have stimulated the rapid expansion of telemental health programs while the research base continues to develop. The emerging evidence base and clinical experience suggest that teleclinicians can, and do, build rapport and establish a therapeutic alliance during telemental health sessions with youth and families. Families may be more accepting of telemental health approaches than clinicians. The impact that technology, equipment, site staff, community supports, cultural identification, and teleclinicians' characteristics have on building rapport and establishing a therapeutic alliance should be considered when establishing a telemental health service. Staff at the patient site and referring providers have a valuable role in supporting the therapeutic alliance between telemental health providers and their patients, and ultimately supporting the success of a telemental health program. Teleclinicians are creative in transcending the videoconferencing technology to evaluate patients using guideline-based care. Further research is needed to determine how clinicians build rapport and establish a therapeutic alliance during telemental health sessions, and whether the therapeutic alliance is associated with the accuracy of evaluation and outcomes.

Hovland, J. C. (2016). Rural telemental health and adolescents: Try a little Shakespeare. *Journal of Creativity in Mental Health, 11*(2), 187-197. DOI:10.1080/15401383.2016.1164644

Twenty-five percent of Americans live in rural areas, almost all of which are designated as mental health service shortage areas. This designation represents serious problems for adolescents needing help with predictable developmental problems. The project described serves communities without mental health professionals; uses telemental health technology, co-located in rural primary care clinics; and emphasizes communication and coordination among professionals and clients. An example of addressing identity formation in an adolescent experiencing significant family and relational stress is explored, including the resolution of an ongoing friendship problem by using a school assignment, an analysis of Shakespeare's Sonnet 48. Discussion includes safety, immediacy, and using bibliotherapy in telemental health with adolescents, as well as the appropriateness of telemental health for individual and parent-child sessions.

Kramer, G. M., & Luxton, D. D. (2016). [Telemental health for children and adolescents: An overview of legal, regulatory, and risk management issues](#). *Journal of Child and Adolescent Psychopharmacology, 26*(3), 198-203. DOI:10.1089/cap.2015.0018

The use of technology to provide telemental healthcare continues to increase; however, little has been written about the legal and regulatory issues involved in providing this form of care to children and adolescents. This article reviews existing laws and regulations to summarize the risk management issues relevant to providing telemental healthcare to children and adolescents. There are several legal and regulatory areas in which telemental health clinicians need to have awareness. These areas include: 1) Licensure, 2) malpractice liability, 3) credentialing and privileging, 4) informed consent, 5) security and privacy, and 6) emergency management. Although legal and regulatory challenges remain in providing telemental healthcare to children and adolescents, it is possible to overcome these challenges with knowledge of the issues and appropriate risk management strategies. We provide general knowledge of these key legal and regulatory issues, along with some risk management recommendations.

Comer, J. S., Furr, J. M., Cooper-Vince, C., Madigan, R. J., Chow, C., Chan, P. T., Idrobo, F., Chase, R. M., McNeil, C. B., & Eyberg, S. M. (2015). Rationale and considerations for the internet-based delivery of parent–child interaction therapy. *Cognitive and Behavioral Practice, 22*(3), 302-316. DOI:10.1016/j.cbpra.2014.07.003

Given the enormous individual, familial, and societal costs associated with early disruptive behavior disorders, transformative efforts are needed to develop innovative options for overcoming traditional barriers to effective care and for broadening the availability of supported interventions. This paper presents the rationale and key considerations for a promising innovation in the treatment of early-onset disruptive behavior disorders—that is, the development of an Internet-based format for the delivery of Parent-Child Interaction Therapy (PCIT) directly to families in their own homes. Specifically, we consider traditional barriers to effective care, and discuss how technological innovations can overcome problems of treatment availability, accessibility, and acceptability. We then detail our current Internet-delivered PCIT treatment program (I-PCIT), which is currently being evaluated across multiple randomized clinical trials relative to waitlist comparison, and to traditional in-office PCIT. Embedded video clips of children treated with I-PCIT are used to illustrate novel aspects of the treatment.

Gloff, N. E., LeNoue, S. R., Novins, D. K., & Myers, K. (2015). Telemental health for children and adolescents. *International Review of Psychiatry, 27*(6), 513-524. DOI:10.3109/09540261.2015.1086322

Most children and adolescents across the USA fail to receive adequate mental health services, especially in rural or underserved communities. The supply of child and adolescent psychiatrists is insufficient for the number of children in need of services and is not anticipated to grow. This calls for novel approaches to mental health care. Telemental health (TMH) offers one approach to increase access. TMH programmes serving young people are developing rapidly and available studies demonstrate that these services are feasible, acceptable, sustainable and likely as effective as in-person services. TMH services are utilized in clinical settings to provide direct care and consultation to primary care providers (PCPs), as well as in non-traditional settings, such as schools, correctional facilities and the home. Delivery of services to young people through TMH requires several adjustments to practice with adults regarding the model of care, cultural values, participating adults, rapport-building, pharmacotherapy and psychotherapy. Additional infrastructure accommodations at the patient site include space and staffing to conduct

developmentally appropriate evaluations and treatment planning with parents, other providers, and community services. For TMH to optimally impact young people's access to mental health care, collaborative models of care are needed to support PCPs as frontline mental health-care providers, thereby effectively expanding the child and adolescent mental health workforce.

Whitney, R. V., & Smith, G. (2015). Emotional disclosure through journal writing: Telehealth intervention for maternal stress and mother–child relationships. *Journal of Autism and Developmental Disorders*, 45(11), 3735-3745. DOI:10.1007/s10803-014-2332-2

This study examines emotional disclosure through the activity of journaling as a means of coping with maternal stress associated with parenting a child with disruptive behaviors. Through a randomized control and pre-test post-test study design of an online journal writing intervention, change to maternal stress and quality of mother–child relationship for children with ASD, ADHD and SPD was addressed. Behavioral symptoms were found to be the primary source of parenting stress for mothers and a significant relationship between child characteristics and maternal stress was identified. Emotional disclosure through the online journal writing program (especially in the presence of high disclosure of negative emotions) was shown to reduce maternal stress and improve the quality of mother–child relationship. These findings suggest cost-effective telehealth interventions may support maternal health. Important clinical implications are discussed.

Duncan, A. B., Velasquez, S. E., & Nelson, E. L. (2014). Using videoconferencing to provide psychological services to rural children and adolescents: A review and case example. *Journal of Clinical Child & Adolescent Psychology*, 43(1), 115-127. DOI:10.1080/15374416.2013.836452

Children and adolescents living in rural areas have difficulty accessing psychological services due to a lack of psychologists and other behavioral health professionals, especially those with expertise in treating youth. Telepsychology helps bridge this access gap. This article extends evidence supporting videoconferencing for psychological assessment and treatment in adults to support telepsychological treatment for youth. In addition, the basic components needed to begin and sustain a telepsychological practice are explored. Finally, a case example of an adolescent presenting with depression and disordered eating illustrates the practice of, and ethical standards needed for, telepsychology. Future technologies and applications around telepsychology are also discussed.

Jones, A. M., Shealy, K. M., Reid-Quiñones, K., Moreland, A. D., Davidson, T. M., López, C. M., ... & de Arellano, M. A. (2014). Guidelines for establishing a telemental health program to provide evidence-based therapy for trauma-exposed children and families. *Psychological Services, 11*(4), 398-409. DOI:10.1037/a0034963

While similar rates of traumatic experiences exist in both rural and urban settings, mental health resources available to those living in rural areas are often scarce. Limited resources pose a problem for children and families living in rural areas, and several barriers to service access and utilization exist including reduced anonymity, few “after-hours” services, decreased availability of evidence-based treatments, few specialty clinics, and expenses associated with travel, taking time off work, and provision of childcare. As a solution, the authors discuss the utility, use, and set-up of a telemental health program through an existing community outreach program. Suggestions for establishing a telemental health clinic are presented along guidelines for the delivery of trauma-focused, cognitive-behavioral therapy (TF-CBT) via telemental health videoconferencing technology. Specific guidelines discussed include (1) establishing and utilizing community partnerships, (2) Memoranda of Understanding (MOU), (3) equipment setup and technological resources, (4) videoconferencing software, (5) physical setup, (6) clinic administration, (7) service reimbursement and start-up costs, (8) therapy delivery modifications, and (9) delivering culturally competent services to rural and remote areas.

Pruitt, L. D., Luxton, D. D., & Shore, P. (2014). Additional clinical benefits of home-based telemental health treatments. *Professional Psychology: Research and Practice, 45*(5), 340-346. DOI:10.1037/a0035461

Home-based telemental health (HBTMH) has several important benefits for both patients and clinical practitioners including improved access to services, convenience, flexibility, and potential cost savings. HBTMH also has the potential to offer additional clinical benefits that are not realized with traditional in-office alternatives. Through a review of the empirical literature, this article presents and evaluates evidence of the clinical benefits and limitations of HBTMH. Particular topics include treatment attendance and satisfaction, social support, access to contextual information, patient and practitioner safety, and concerns about privacy and stigma. By making use of commonly available communication technologies, HBTMH affords opportunities to bridge gaps in care to meet current and future mental health care needs.

Weinstein, R. S., Lopez, A. M., Joseph, B. A., Erps, K. A., Holcomb, M., Barker, G. P., & Krupinski, E. A. (2014). Telemedicine, telehealth, and mobile health applications that work: Opportunities and barriers. *The American Journal of Medicine*, 127(3), 183-187. DOI:10.1016/j.amjmed.2013.09.032

There has been a spike in interest and use of telehealth, catalyzed recently by the anticipated implementation of the Affordable Care Act, which rewards efficiency in healthcare delivery. Advances in telehealth services are in many areas, including gap service coverage (eg, night-time radiology coverage), urgent services (eg, telestroke services and teleburn services), mandated services (eg, the delivery of health care services to prison inmates), and the proliferation of video-enabled multisite group chart rounds (eg, Extension for Community Healthcare Outcomes programs). Progress has been made in confronting traditional barriers to the proliferation of telehealth. Reimbursement by third-party payers has been addressed in 19 states that passed parity legislation to guarantee payment for telehealth services. Medicare lags behind Medicaid, in some states, in reimbursement. Interstate medical licensure rules remain problematic. Mobile health is currently undergoing explosive growth and could be a disruptive innovation that will change the face of healthcare in the future.

Frasier, L. D., Thraen, I., Kaplan, R., & Goede, P. (2012). Development of standardized clinical training cases for diagnosis of sexual abuse using a secure telehealth application. *Child Abuse & Neglect*, 36(2), 149-155. DOI:10.1016/j.chiabu.2011.06.006

The evaluation of children and adolescents suspected of having been sexually abused is dependent upon an understanding of many complex issues. The history from the child obtained in a forensically supportable manner has been shown to be the single most important factor in the determination of whether a child has been sexually abused. (Berkoff et al, 2008; Kellogg, Menard, & Santos, Heger, Ticson, Velasquez, & Bernier, 2002) The manner in which that history is taken and recorded becomes evidence in legal settings to support or refute allegations of sexual abuse. (Berenson, et al., 2000; Heger, et al., 2002). The results of the medical examination may be used by legal authorities to determine if physical evidence is present that confirms the allegation that sexual abuse or assault has occurred. Both clinical experience and research studies have demonstrated that physical evidence is exceedingly rare in children who allege sexual abuse. When prepubertal children with alleged sexual contact are evaluated in the non acute setting more than 95% will have no physical findings that could be discerned as abnormal as compared to non abused

children. (Berenson, et al., 2000; A. Heger, et al., 2002) Additional work suggests that even when acute injuries to the anogenital area are present, those injuries heal quickly and often without physical sequelae. The exceptions are when there is severe, penetrating trauma involving extensive tissue injury. (McCann, Miyamoto, Boyle, & Rogers, 2007a, 2007b) Medical and legal professionals may place too much emphasis on the physical findings or lack thereof to prove or disprove a sexual act has occurred.

Siemer, C. P., Fogel, J., & Van Voorhees, B. W. (2011). [Telemental health and web-based applications in children and adolescents](#). *Child and Adolescent Psychiatric Clinics*, 20(1), 135-153. DOI:10.1016/j.chc.2010.08.012

The authors conducted a review of the literature with regard to child and adolescent mental health intervention, from which they identified 20 unique publications and 12 separate interventions. These interventions encompassed depression, anxiety, substance abuse, eating disorders, and mental health promotion. Studies were heterogeneous, with a wide range of study designs and comparison groups creating some challenges in interpretation. However, modest evidence was found that Internet interventions showed benefits compared with controls and preintervention symptom levels. Interventions had been developed for a range of settings, but tended to recruit middle-class participants of European ethnicity. Internet interventions showed a range of approaches toward engaging children and incorporating parents and peers into the learning process.

Nelson, E. L., & Bui, T. (2010). Rural telepsychology services for children and adolescents. *Journal of Clinical Psychology*, 66(5), 490-501. DOI:10.1002/jclp.20682

Because of the overwhelming maldistribution of mental health specialists in metropolitan areas and the many underserved families living in rural settings, rural areas are natural homes for the use of telemedicine or videoconferencing technology for clinical services. The authors describe telepsychology services for rural clients, placing best psychology practices within the context of broader telemental health services. The goal is to approximate evidence-based child psychotherapy from face-to-face practice using the videoconferencing technology. Telepsychology is illustrated with a case report of a rural Hispanic teen and her family presenting through the teen's primary care clinic.

MacLeod, K. J., Marcin, J. P., Boyle, C., Miyamoto, S., Dimand, R. J., & Rogers, K. K. (2009). Using telemedicine to improve the care delivered to sexually abused children in rural, underserved hospitals. *Pediatrics*, *123*(1), 223-228. DOI:10.1542/peds.2007-1921

We used live telemedicine consultations to assist remote providers in the examination of sexually assaulted children presenting to rural, underserved hospitals. We hypothesized that telemedicine would increase the ability of the rural provider to perform a complete and accurate sexual assault examination. Child abuse experts from a university children's hospital provided 24/7 live telemedicine consultations to clinicians at 2 rural, underserved hospitals. Consultations consisted of videoconferencing to assist in the examination and interpretation of findings during live examinations. Consecutive female patients <18 years of age presenting to the 2 participating hospitals were included. We developed and used an instrument to assess the quality of care and the interventions provided via telemedicine as it related to patient history, physical examination, colposcopic and manual manipulation techniques, interpretation of findings, and treatment plans for victims of child sexual abuse. Data from 42 live telemedicine consultations were analyzed. The mean duration of the consultations was 71 minutes (range: 25–210 minutes). The consultations resulted in changes in interview methods (47%), the use of the multimethod examination technique (86%), and the use of adjunct techniques (40%). There were 9 acute sexual assault telemedicine consults that resulted in changes to the collection of forensic evidence (89%). Rankings of practitioners' skills and the telemedicine consult effectiveness were high, with the majority of cases scoring ≥ 5 on a 7-point Likert scale. The use of telemedicine to assist in the examination of sexually assaulted children presenting to underserved, rural communities results in significant changes in the methods of examination and evidence collection. It is possible that this model of care results in increased quality of care and appropriate forensic evidence collection.

Kaplan, B., & Litewka, S. (2008). Ethical challenges of telemedicine and telehealth. *Cambridge Quarterly of Healthcare Ethics*, *17*(4), 401-416. DOI:10.1017/S0963180108080535

As healthcare institutions expand and vertically integrate, healthcare delivery is less constrained by geography, nationality, or even by institutional boundaries. As part of this trend, some aspects of the healthcare process are shifted from medical centers back into the home and communities. Telehealth applications intended for health promotion, social services, and other activities—for the healthy as well as for the ill—provide services outside clinical settings in homes, schools,

libraries, and other governmental and community sites. Such developments include health information web sites, on-line support groups, automated telephone counseling, interactive health promotion programs, and electronic mail exchanges. Concomitant with these developments is the growth of consumer health informatics, in which individuals seeking medical care or information are able to find various health information resources that take advantage of new information technologies.

Foster, P. H., & Whitworth, J. M. (2005). The role of nurses in telemedicine and child abuse. *CIN: Computers, Informatics, Nursing*, 23(3), 127-131.
DOI:10.1097/00024665200505000-00007

Telemedicine allowed for imaging and videoconferencing between staff at a medical center hub and registered nurses who performed child abuse examinations at community hospitals. By means of electronic communication and information technology, a network was designed to facilitate the examination of children at distant locations when abuse was suspected. Telemedicine provided for expert consultation, rapid evaluation, response to community needs, and an expanded role for nurses. This anecdotal evaluation explored the experience from the view of the registered nurses and an advanced registered nurse practitioner who participated in the telemedicine network. Findings indicated that nurses went through phases of adjustments while becoming familiar with the information technology, cameras, and setup while focusing on the needs of the children and their own responses. Telemedicine nurses were able to draw upon their clinical backgrounds in caring for children and apply their knowledge and skills when assessing victims of abuse. On the basis of interviews and observation, it was concluded that telecommunication did not interfere with the nurse-patient relationship.

Hailey, D., Ohinmaa, A., & Roine R. (2004). Study quality and evidence of benefit in recent assessments of telemedicine. *Journal of Telemedicine and Telecare*, 10(6), 318-324.
DOI:10.1258/1357633042602053

We carried out a systematic review of recent telemedicine assessments to identify scientifically credible studies that included comparison with a non-telemedicine alternative and that reported administrative changes, patient outcomes or the results of an economic assessment. From 605 publications identified in the literature search, 44 papers met the selection criteria and were included in the review. Four other publications were identified through references cited in one of

the retrieved papers and from a separate project to give a total of 48 papers for consideration, which referred to 42 telemedicine programmes and 46 studies. Some kind of economic analysis was included in 25 (52%) of the papers. In considering the studies, we used a quality appraisal approach that took account of both study design and study performance. For those studies that included an economic analysis, a further quality-scoring approach was applied to indicate how well the economic aspects had been addressed. Twenty-four of the studies were judged to be of high or good quality and 11 of fair to good quality but with some limitations. Seven studies were regarded as having limited validity and a further four as being unacceptable for decision makers. New evidence on the efficacy and effectiveness of telemedicine was given by studies on geriatric care, intensive care and some of those on home care. For a number of other applications, reports of clinical or economic benefits essentially confirmed previous findings. Although further useful clinical and economic outcomes data have been obtained for some telemedicine applications, good-quality studies are still scarce.

Nelson, E. L., Barnard, M., & Cain, S. (2003). Treating childhood depression over videoconferencing. *Telemedicine Journal and E-health*, 9(1), 49-55.
DOI:10.1089/153056203763317648

Effective cognitive-behavioral treatments for childhood depression have developed over the last decade, but many families face barriers to such care. Telemedicine increases access to psychological interventions by linking the child and the clinician using videoconferencing (VC). The current study evaluated an 8-week, cognitive-behavioral therapy (CBT) intervention for childhood depression either face-to-face (F2F) or over VC. The telemedicine setup included two PC-based PictureTel systems at 128 kilibits per second (kbps). Success was defined by (1) decreasing depressive symptoms at similar rates in both the VC group and the F2F group and (2) demonstrating the feasibility of a randomized controlled trial in telemental health. Children were assessed for childhood depression using the mood section of the Schedule for Affective Disorders and Schizophrenia for School Age Children–Present Episode (K-SADS-P). Twenty-eight children were randomized to either F2F or VC treatment. The participants completed the K-SADS-P and the Children’s Depression Inventory (CDI) at pre- and posttreatment. The CBT treatment across the two conditions was effective. The overall response rate based on post-evaluation with the K-SADS-P was 82%. For the CDI total score, both the Time and the Group by Time effects were

significant ($p < .05$). The interaction effect reflected a faster rate of decline in the CDI total score for the VC group. The study serves as a model for building on past research to implement a randomized controlled trial. This information provides persuasive research data concerning treatment effectiveness for clinicians, families, and funders.

Pammer, W., Haney, M., Lmhc, N. C. C., Wood, B. M., Brooks, R. G., Morse, K., Hicks, P., Handler, E. G., Rogers, H., & Jennett, P. (2001). Use of telehealth technology to extend child protection team services. *Pediatrics*, *108*(3), 584-590. DOI:10.1542/peds.108.3.584

In response to increased referrals to Florida's Child Protection Teams and concern regarding statewide availability of medical expertise in the area of child abuse and neglect, Children's Medical Services of the Florida Department of Health established a telemedicine project to facilitate immediate expert medical evaluations of alleged child abuse or neglect. This article describes a baseline examination of the project, including the technique of concept mapping, to examine how larger systematic factors influence the adaptation of telemedicine technology in child abuse examination settings. This study included interviews of key staff plus the incorporation of concept mapping, which takes qualitative data (individual statements and opinions) and quantifies them (sorts and ranks them by order of group importance). Findings from interviews revealed that the frequency of use of telehealth services varies across the state as a result of several factors, including space limitations and staff training. Patients, however, seem to be comfortable with the use of the new technology. The concept mapping exercise displayed a progression of issues that are perceived to have an impact on the use of this technology. Technology use is affected by unforeseen variables, such as physical space limitations and examination room availability. Family concerns about patient privacy issues were rare and were resolved quickly by the health care practitioner. Although using this equipment is not difficult, the search for user-friendliness should be continued. Staff engagement early in the process likely will result in a greater likelihood of use of the technology.

Kellogg, N. D., Lamb, J. L., & Lukefahr, J. L. (2000). The use of telemedicine in child sexual abuse evaluations. *Child Abuse & Neglect*, *24*(12), 1601-1612. DOI:10.1016/S0145-2134(00)00204-0

The objective was to describe the advantages, disadvantages and current status of child abuse consultations conducted through telemedicine networks. The results of a telephone survey of seven

statewide telemedicine networks are reported and discussed with respect to goals, funding, technical support and expertise, infrastructure, and extent of use. Quality assurance and liability issues concerning telemedicine child abuse consultations are also reviewed. The goals of telemedicine networks in child abuse are to provide (1) expertise to less experienced clinicians primarily in rural areas; (2) a method for peer review and quality assurance to build consensus of opinions particularly in sexual abuse cases; and (3) support for professionals involved in an emotionally burdensome area of pediatrics. Problems encountered by existing networks include: (1) funding for equipment and reimbursement for consultation; (2) consistent technical support; (3) clinician lack of technical expertise, knowledge, or motivation; and (4) lack of network infrastructure. Legal considerations include licensure exemptions for consulting across state lines, potential for malpractice, patient confidentiality and security of images forwarded over modem lines, and liability of the equipment, consulting site, and the consultant in criminal proceedings. Telemedicine consultations offer a unique opportunity to raise the standard of care in child abuse evaluations, but success depends on clinician motivation, appropriate infrastructure, and ongoing funding and technical support.

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Telemedicine and telehealth evaluations often address the technological aspects of health care while neglecting the psychosocial implications of the technology. Currently, little is known about the meaning of telehealth care in terms of access, quality of care, or financial impact. This article focuses on the human aspects of using technology to provide mental health care and the insight that psychology can bring to the evaluation process. It discusses telehealth's impact on and interface with health care facilities, specifically in relation to training, informatics, remote consultations, patient outcomes, provider health, and professional practice. It also presents guidelines and suggestions for the implementation of a telehealth evaluation. It also presents guidelines and suggestions for the implementation of a telehealth evaluation, including evaluation design, examples of outcome-related questions that may be pertinent to telehealth evaluation, and suggestions for psychology's continuing role in telehealth.