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Rural Mental Health Care During a Global Health Pandemic: Addressing and Supporting the Rapid Transition to Tele-Mental Health

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Abstract

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 telemental 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 webpage 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.

Keywords: mental health, telehealth, tele-mental health, training in telehealth, pandemic, telehealth transition during Covid-19

Public Health Significance Statement

This project found that a large number of participants are interested in learning ways to transition from in-person care to telehealth during the global health pandemic. This paper describes a training program and learning series that provided much needed technical assistance to thousands of practitioners interested in providing remote mental health care during the global health pandemic and also highlights areas of need as identified by the more than 4,500 providers who attended virtual trainings.

Rural Mental Health Care During a Global Health Pandemic: Addressing and Supporting the Rapid Transition to Telehealth

Prior to the global health pandemic (COVID-19), rural health communities were already struggling to gain access to mental health services (Health Resources and Services Administration [HRSA], 2020; Meyers, 2019; Ziller, Anderson & Coburn, 2010). Rural areas have historically faced barriers around the accessibility, acceptability, and availability of mental health care (Rural Health Information Hub, 2018). Rural areas also report lower mental health care access and utilization rates than urban areas (HRSA, 2020; Larson, Patterson, Garberson, & Andrilla, 2016), and have less access to telehealth services than do urban communities because of issues related to broadband access, technology literacy, and stigma of accessing mental health services, among others (Andrilla et al., 2016).

In March of 2020, in response to the growing health pandemic, mental health providers across the United States (U.S.) in both rural and urban areas had to suspend face-to-face appointments and move their practices to be entirely remote. Although 29% of mental health facilities were offering telehealth as of 2017, many facilities offering this service were located in states with lower rural populations (Barnett & Huskamp, 2019). Therefore, when the pandemic began, there was an immediate need for training on how to move from onsite visits to remote practice while also addressing unique barriers to care faced by those serving persons who live in rural areas.

This article describes a collaborative effort between two regional Mental Health
Technology Transfer Centers (MHTTCs) and one Addiction Technology Transfer Center

(ATTC) working to develop real-time training and technical assistance for rural mental health
providers moving to provide remote services in the spring of 2020. These providers were

working to not only respond to a growing demand for mental health care services amidst a global health crisis, but a demand that could only be met in a virtual format.

In addition to outlining the response to the rapid uptake of various technologies employed to administer tele-mental health services in rural communities, this article also describes the unique challenges faced by rural mental health providers. Each training included a panel of experts that responded to questions raised by attendees as they appeared in the question and answer (Q&A) chat box. This article also describes general themes of need and inquiry that were unique to these rural providers, as presented in the chat box, as well as how the panel responded to these questions and concerns.

BACKGROUND

Rural Tele-Mental Health Training Needs

One early effect of the global health pandemic was disruption in the mental health treatment delivery system, requiring rapid changes in mental health services provision (American Psychological Association, 2020; Centers for Medicare & Medicaid Services, 2020; Conrad et al., 2020; U.S. Department of Health and Human Services, 2020). Providers (both rural and urban) were no longer able to conduct to face-to-face mental health services. This forced the adoption of tele-mental health (also referred to as tele-therapy) among those who had not yet used this modality of care. Thus ensued a very short time of transition and a steep learning curve as mental health care providers needed to quickly learn how to effectively use this new format in an effort to reduce any lag in service availability (Augenstein, 2020; Conrad et al., 2020; Druss, 2020).

Mental health providers felt increasing pressure to quickly adopt new modalities for care provision because they did not want a gap in services for persons with significant mental health

issues (Conrad et al., 2020). Compounding the need to quickly adapt to new modalities of care for existing patients was an increasing demand for mental health services globally in response to individuals experiencing increased stress, depression, anxiety, and substance use resulting from the pandemic and its consequences (e.g., patient deaths, social isolation due to shelter-in-place) (Pfefferbaum & North, 2020; Torales et al., 2020; Yao et al., 2020). Mental health providers in rural areas responding to virtual care demands were at an increasing disadvantage because they did not have the same access as urban providers to larger local health systems and peer mentors in tele-mental health.

Not only were individual providers (both rural and urban) being forced to adopt new modalities of care, but mental health systems were facing challenges of moving their health system to virtual care without preparation, and with management systems and funding processes that only supported face-to-face care services in a physical location. There was a lack of preparedness in clinical academic programs and training programs to provide services virtually (Smith, Thomas, & Snoswell, 2020) and a growing need to educate providers about the positive research base on tele-mental health (Bashshur, Shaonnon, Bashshur, & Yellowlees, 2016).

Tele-mental health is efficacious in mental health (e.g., Banbury et al., 2018; Lin et al., 2019; Shigekawa et al., 2018; Totten et al., 2019) and school-based settings (e.g., Cunningham et al., 2013; Mayworm et al., 2019; Stephan, et al., 2016). Prior to the global health pandemic, however, few tele-mental health services were provided because of issues related, but not limited, to reimbursement, lack of equipment and infrastructure, negative attitudes of providers and patients, and lack of provider knowledge about how to deliver telemedicine. These barriers were still present, even as mental health systems were being forced to adopt virtual care. In response, mental health providers, school personnel, and administrators dedicated to providing

care during the pandemic contacted their MHTTCs and ATTCs for support and expertise in adoption of tele-mental health services. Questions raised to MHTTC and ATTC staff by administrators, peers, supervisors, clinicians and office staff were broad and included a host of legal, clinical, and organizational considerations.

MHTTC and ATTC Networks

Funded in 2018 by the Substance Abuse and Mental Health Services Administration (SAMHSA), the MHTTC and ATTC Networks each include ten Regional Centers that cover all U.S. states and territories per the Department of Health and Human Services regional designations, a National American Indian and Alaska Native Center, a National Hispanic and Latino Center, and a Network Coordinating Office (Figures 1-2). The purpose of both the MHTTC and ATTC Networks is technology transfer; accelerating the dissemination and implementation of evidence-based practices for mental illness and addiction prevention, treatment, and recovery support (ATTC Network Technology Transfer Workgroup, 2011).

Figure 1. Map of SAMHSA-funded Mental Health Technology Transfer Centers Figure 2. Map of SAMHSA-funded Addiction Technology Transfer Centers

The Mountain Plains MHTTC's (Region 8) focus is on addressing the needs of rural and remote mental health providers to expand access to evidence-based mental health services. This Center also hosts expertise in tele-mental health policy and an ongoing commitment to expand tele-therapy, due to the work force shortage in the rural states in their region. Mid-America MHTTC (Region 7) carries expertise in the implementation of integrated care with a focus on pediatric settings. The Mid-America MHTTC and ATTC both have access to a host of trainers with expertise and skills in providing clinical tele-mental health services and agency exemplars with strong outcomes in using tele-mental health.

RESPONDING TO THE NEED

In spring of 2020, teams from the Mid-America MHTTC and ATTC, and the Mountain Plains MHTTC recognized their regions were sharing similar concerns around rural tele-mental health adoption. Combining talents and resources across the three Centers created a successful partnership in advancing tele-mental health delivery with a focus on the needs of rural providers in the ten states of these two regions including Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming, Nebraska, Iowa, Kansas, and Missouri (Mid-America MHTTC, 2020; Mountain Plains MHTTC, 2020a).

Stakeholders contacted the MHTTC Network with requests for assistance surrounding the transition to telehealth. Requests included basic information on telehealth platforms and equipment, billing and coding, educating patients on how to use the platform, as well as more clinically focused issues such as how to adapt services to tele-mental health and how to engage new clients. In addition, SAMHSA leadership directed the MHTTCs to provide tele-mental health related training and technical assistance to help the field make the transition, joining several other national groups providing these resources (e.g., HRSA-funded Telehealth Resource Centers).

The initial response included offering a five-part virtual learning series on tele-mental health. After the series, several additional supports, trainings, and products were developed and made readily available online. Content included basic techniques on use of tele-mental health technology across a range of populations, and presenting needs and settings, as well as how to avoid pitfalls when delivering services using technology.

Structure of Training and Product Development

The five-part learning series was designed to be a timely response to direct requests for training focused on the "how to's" of tele-mental health delivery. This included how to navigate the rapidly changing regulations associated with privacy and billing for services. Recognizing the changing demands and new barriers to care provision, the learning series also sought to offer a dynamic training experience wherein content and resources were shared in real time as providers actively engaged and asked questions during the trainings.

The five-part learning series, titled *Telehealth Learning and Consultation (TLC)*Tuesdays, ran weekly beginning in March 2020. The focus was to offer training and supports with a positive message that tele-mental health is effective, safe, and commonplace – based on the trainers' experiences and expertise and the research base for tele-mental health. *TLC*Tuesdays also provided expertise in mental health policy. Each week, trainers reviewed any billing and state-border concerns resulting from changes in state and federal policy during the pandemic. The five learning events were titled:

- Telehealth basics
- Telehealth billing
- Telehealth tools
- Telehealth with children and adolescents
- Telehealth troubleshooting

The general focus was on increasing providers' comfort with use of technology to conduct tele-mental health sessions, providing specific hands-on content, and responding to questions raised during each session. During the registration process, participants were asked to submit questions so trainers were aware of emerging issues and could adapt session content

accordingly. A professor in a College of Nursing and Professional Disciplines, and director of both an ATTC and MHTTC, reviewed all submitted questions from the registration form, as well as those submitted live in the Q&A chat boxes for each learning series. Questions were compiled into a running document, reviewed, and recognized as fitting into one of two broad themes: legal and structural concerns, or clinical questions. Within each theme, the questions were summarized into seven and six subcategories respectively. Themes of need are summarized in Table 1.

Table 1. Legal, Structural, and Clinical Questions and Concerns around Tele-Mental Health

Of paramount concern was serving individuals and families with no access to technology (including those in rural areas) and assurance that tele-mental health was effective. For example, discussions were held regarding how to address bandwidth issues in rural settings via telephone services and hot spots. The trainers consistently provided a message regarding the benefits of tele-mental health, as well as the capacity to use various technologies for supervision, training, and meetings during the pandemic.

The *TLC Tuesdays* five-part learning series used the Zoom webinar platform, a widely used video communication system (Zoom Video Communications, Inc., 2020), and experienced no technical difficulties. The ATTC and MHTTCs held "dry run" sessions prior to the training events to ensure that technical issues were addressed before going "live." Each session had up to three trainers, as well as staff running technology and marketing. All trainers and administrative personnel in the Mid-America and Mountain Plains MHTTCs provided responses to questions during the live sessions in both the chat box (comments shared with all participants) and Q&A chat box (participants ask questions that are answered only by trainers) features of Zoom webinar. Following each session, staff and trainers prepared a Frequently Asked Questions

(FAQ) document in which the presenters responded to questions posed during the live session or through the registration process. The recording, power point slides, FAQ document and other resources were added to a single webpage for public access at

https://mhttcnetwork.org/centers/mid-america-mhttc/telehealth-learning-and-consultation-tlc-tuesdays.

Training Topics and Reach

More than 4,500 individuals nationwide attended the *TLC Tuesdays* learning series. Mid-America and Mountain Plains regions (HHS Regions 7 and 8) are not population dense; thus, the Centers held basic Zoom licenses that limited the total allowable attendance to just over 1,000 persons. Because the licenses could not accommodate capacity, many were unable to attend the live sessions. The webpage developed to house all of the *TLC Tuesdays* information, slide decks, and recordings as well as supplementary materials has been viewed 13,310 times (through August 31, 2020), expanding capacity well beyond the original live learners. Table 2 includes a list of training topics, dates, attendance numbers, and the number of recorded webinar views following the events.

Table 2. Tele-Mental Health Training Topics, Dates, and Reach

Each session also provided a host of resources that were available on the *TLC Tuesdays*' webpage. Criteria for selection of products and best practices to share with attendees and webpage visitors required that the resources exist in the public domain, were current, and were responsive to the context of the pandemic. Resources shared with attendees and on the *TLC Tuesdays* webpage are presented in Table 3.

Table 3. Additional Resources Shared for each TLC Tuesdays Training Event

IMPACT AND ONGOING PROGRAM RESPONSE

Following the *TLC Tuesdays* series, a host of spin-offs occurred across the MHTTC and ATTC Networks and continues to occur during the pandemic to address the timely training needs of the mental health and addiction workforces. The popularity of training and technical assistance around tele-mental health has not decreased, but topics have evolved. The initial five-part learning series was general and intended to assist providers who were quickly being required to adapt a modality of care they had never utilized. Ongoing support has now focused on specific topics or concerns, populations, and regional foci (e.g., rural tele-mental health, farm stress and telehealth, addressing cultural competencies in the use of tele-mental health).

The MHTTC Network Coordinating Office, in collaboration with the Mid-America and Mountain Plains MHTTCs, as well as the Northwest MHTTC and National Hispanic and Latino MHTTC, continued offering telehealth training via a Clinical Innovations in Telehealth learning series (MHTTC, 2020). Specifically, this series focused on the use of telehealth for suicide care, post-traumatic stress disorder, cognitive behavioral therapy for psychosis, and providing culturally relevant telehealth services to the Latino population in the context of COVID-19. Furthermore, the Mountain Plains and Great Lakes MHTTC combined efforts with the American Psychological Association to offer a telehealth session focused on the needs of rural and farm communities (Roberts, Baker, & Gillaspy, 2020). Mountain Plains MHTTC also partnered with the National Organization of State Office of Rural Health and the Suicide Prevention Resource Center to provide a session on managing suicidal ideation for primary care providers that included content on billing for telehealth services (Heitkamp, Schroeder, Norville, and Peterson, 2020). Sessions were recorded and slides are provided on the webpage for public access.

Additional training and technical assistance developed by region 7 ATTC and MHTTC, and region 8 MHTTC as a follow-up to the *TLC Tuesdays* leaning series are presented in Table 4. Table 4. Tele-mental Health Trainings, Materials, and Technical Assistance Developed by the Mid-America ATTC and MHTTC and Mountain Plains MHTTC as Follow-up to the TLC Tuesdays Learning Series

LIMITATIONS

Although this initial and immediate response to training around the implementation of tele-mental health services was well received, there were limitations to the roll-out of the training events as well as the measurement of impact. These training invitations, although developed by regional MHTTCs and ATTCs, were distributed through the MHTTC and ATTC Networks to any participants throughout the U.S. The team was not able to collect information on where participants were located nor if they predominately served persons living in rural or urban areas. Similarly, attendees did not provide contact information for follow-up in order to determine if they adopted tele-mental health services, experienced additional barriers, or increased telemental health visits in their practice.

Another barrier for the MHTTC and ATTC teams is the inability to address and overcome general patient barriers to tele-mental health services. Specifically, these training sessions were geared toward providers and health systems and offered clinical practice tips, suggestions for billing, how to work with rural clients/patients, and how to adapt organizational workflow to fit with tele-mental health provision, for example. However, these training sessions were, and continue to be, focused on the role of the provider. Rural communities still face limitations to accessing tele-mental health services that relate to fear and mistrust of telehealth among patients, stigma around mental health services, and even more generally, broadband

access and tech literacy. While the MHTTC and ATTC Networks focus on preparing providers to address the mental health needs of rural persons during a global health pandemic, it is imperative to work with local and community health programs that can address patient concerns around tele-mental health as well as work with states and the National Conference of State Legislatures to ensure adequate broadband access in rural areas (Morton, 2020).

CONCLUSIONS

Although the initial *TLC Tuesdays* five-part learning series and associated resources were provided in response to the rapid, widespread shift to tele-mental health services, the need for training in the delivery of tele-mental health has, and always will be, relevant to the delivery of evidence-based intervention services in a multitude of settings for many populations, especially rural. Expanding access to services using tele-mental health will require significant organizational change and create the need to study what change management strategies are effective in implementing tele-mental health. This includes increasing the confidence of the provider in using technology, increasing access among clients to the technology, and preparing and educating clients about how to use tele-mental health. Preservice education for mental health professionals in how to work within telehealth is also an emergent need, as few education programs offer such experiences. Moreover, future offerings may also include more in-depth training and technical assistance strategies, such as Project ECHO (Arora et al., 2007) or learning collaboratives.

The partnerships that evolved from the regional mental health provider requests for training and technical assistance were significant and are ongoing. Lessons from the field can be provided across disciplines and networks. Future work of the MHTTCs and ATTCs around the

topic of tele-mental health must look to address common fears and barriers expressed by providers in this series. These include:

- Fear and confusion around future reimbursement for tele-mental health services once the COVID-19 pandemic diminishes.
- Concern about technology literacy among pockets of the patient population that are being left behind during this period of virtual only visits.
- Concerns around the future use to tele-therapy for group sessions.
- Issues of ensuring safety in the home.
- Management of patients who experience suicidal ideation.

Many of these concerns have been corroborated by the Kaiser Family Foundation in their resource *Opportunities and Barriers for Telemedicine in the U.S. During the COVID-19*Emergency and Beyond (Weigel et al., 2020). Here they not only address general concerns about the use of tele-mental health, but specifically discuss barriers experienced by persons living in rural areas.

This article described the capacity of SAMHSA-funded MHTTCs and ATTCs to respond to emerging and immediate training and technical assistance needs of the mental health workforce. It illustrates the importance of cross program collaboration to address shared needs of rural mental health providers. The article also offers a glimpse into the common themes of need expressed by mental health providers (both rural and urban) who were adopting virtual care for the first time in response to the global health pandemic.

References

- Addiction Technology Transfer Center (ATTC) Network Technology Transfer Workgroup.

 (2011). Research to practice in addiction treatment: key terms and a field-driven model of technology transfer. *Journal of Substance Abuse Treatment*, 41(2), 169-178.

 https://doi.org/10.1016/j.jsat.2011.02.006
- America's Health Insurance Plans. (2020). Health insurance providers respond to coronavirus (COVID-19). Retrieved on April 1, 2020, from https://www.ahip.org/health-insurance-providers-respond-to-coronavirus-covid-19/
- American Psychological Association. (2020, March 24). *APA to states, insurers: Provide access to mental health care during COVID-19 public health crisis* [Press release].

 https://www.apa.org/news/press/releases/2020/03/mental-health-care-covid-19
- American Telemedicine Association. (2020). *Telehealth basics*.

 https://www.americantelemed.org/resource/why-telemedicine/
- Andrilla, C. H. A., Patterson, D. G., Garberson, L. A., Coulthard, C., & Larson, E. H. (2018).

 Geographic variation in the supply of selected behavioral health providers [Supplemental material]. *American Journal of Preventative Medicine*, *54*(3), S199-S207.

 https://doi.org/10.1016/j.amepre.2018.01.004
- Augenstein, J. (2020, March 16). Opportunities to expand telehealth use amid the coronavirus pandemic. Health Affairs Blog.

 https://www.healthaffairs.org/do/10.1377/hblog20200315.319008/full/
- Banbury, A., Nancarrow, S., Dart, J., Gray, L., & Parkinson, L. (2018). Telehealth interventions delivering home-based support group videoconferencing: Systematic review. *Journal of Medical Internet Research*, 20(2), e25. http://doi.org/10.2196/jmir.8090

- Barnett, M. L., & Huskamp, H. A. (2020). Telemedicine for mental health in the United States:

 Making progress, still a long way to go. *Psychiatric Services*, 71(2), 197-198.

 https://doi.org/10.1176/appi.ps.201900555
- Bashshur, R. L., Shaonnon, G. W. Bashshur, N., & Yellowlees, P. M. (2016). The empirical evidence for telemedicine interventions in mental disorders. *Telemedicine and e-Health*, 22(2), 87-113. https://doi.org/10.1089/tmj.2015.0206
- Center for Connected Health Policy. (2019). State telehealth laws and reimbursement policies.

 Public Health Institute. https://www.telehealthresourcecenter.org/wp-content/uploads/2019/12/50-State-Telehalth-Laws-and-Reibmursement-Policies-Report-Fall-2019-FINAL.pdf
- Center for Connected Health Policy. (2020, January). Billing for telehealth encounters: An introductory guide on fee-for-service. Public Health Institute.

 https://www.cchpca.org/sites/default/files/2020
 01/Billing%20Guide%20for%20Telehealth%20Encounters_FINAL.pdf
- Center for Connected Health Policy. (2020). *COVID-19 related state actions*. Public Health

 Institute. Retrieved on April 1, 2020, from https://www.cchpca.org/resources/covid-19-related-state-actions
- Center for Connected Health Policy. (2020). *COVID-19 telehealth coverage policies*. Public Health Institute. Retrieved on April 1, 2020, from https://www.cchpca.org/resources/covid-19-related-state-actions
- Centers for Medicare & Medicaid Services. (2020, March 17). *Medicare telemedicine health*care provider fact sheet [Fact sheet]. https://www.cms.gov/newsroom/fact-sheet

 sheets/medicare-telemedicine-health-care-provider-fact-sheet

- Conrad, R., Rayala, H., Diamond, R., Busch, B., & Kramer, N. (2020, April 7). *Expanding telemental health in response to the COVID-19 pandemic*. Psychiatric Times.

 https://www.psychiatrictimes.com/view/expanding-telemental-health-response-covid-19-pandemic
- Cunningham, D. L., Connors, E. H., Lever, N., & Stephan, S. H. (2013). Providers' perspectives:

 Utilizing telepsychiatry in schools. *Telemedicine Journal and e-Health*, *19*, 794–799.

 https://doi.org/10.1089/tmj.2012.0314
- Curley, C. (2020, April 2). How to create breakout rooms in zoom and give callers their own groups to talk privately in. Business Insider. https://www.businessinsider.com/how-to-do-breakout-rooms-in-zoom
- Druss, B. G. (2020). Addressing the COVID-19 pandemic in populations with serious mental illness. JAMA Psychiatry, 77(9), 891-892.

 https://doi.org/10.1001/jamapsychiatry.2020.0894
- Franta, E., Morse, M., Chadwell, M., Hoff, N., Clarke, B. L., & Robinson, L. (2020). *Telehealth toolbox for school personnel*. Mid-America Mental Health Technology Transfer Center. https://mhttcnetwork.org/centers/mid-america-mhttc/product/telehealth-toolbox-school-personnel-all-handouts
- GoodTherapy (2020, January 8). *Online group therapy: Tips for therapists*.

 https://www.goodtherapy.org/for-professionals/software-technology/telehealth/article/online-group-therapy-tips-for-therapists
- Government Publishing Office. (2020, September). *Electronic code of federal regulations* (*e-CFR*): *Title 42*, *part 2*. https://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&rgn=div5&view=text&node=42:1.0.1.1.2&idno=42#42:1.0.1.1.2.1.1.3

- Great Plains Telehealth Resource and Assistance Center (n.d.). A telehealth implementation checklist [Flyer]. National Consortium of Telehealth Centers.

 https://www.telehealthresourcecenter.org/wp-content/uploads/2019/07/checklist190508-gpTRAC.pdf
- Growth in Academics through Innovation and Neuroeducation, Evansville Vanderburgh School Corporation. (2020, March). *Guidance, scripts, strategies, & resources for supporting students and educators during COVID-19* [Flyer].

 https://drive.google.com/file/d/1EVppSCb3WS4znjYthynSG7n2Tccuot4e/view.
- Heitkamp, T., Schroeder, S., Norville, T., & Peterson, C. (2020). Rural primary care tools and resources for managing suicidal ideation during COVID-19. Mountain Plains Mental Health Technology Transfer Center. https://mhttcnetwork.org/centers/mountain-plains-mhttc/event/rural-primary-care-tools-and-resources-managing-suicidal
- Health Resources and Services Administration. (2020, June 30). Designated health professional shortage areas statistics: Third quarter of fiscal year 2020, designated HPSA quarterly summary. U.S. Department of Health and Human Services, Bureau of Health Work Force, Health Resources and Services Administration (HRSA).

 https://data.hrsa.gov/Default/GenerateHPSAQuarterlyReport
- Hilty, D. M., Ferrer, D. C., Parish, M. B., Johnston, B., Callahan, E. J., & Yellowlees, P. M.
 (2013). The effectiveness of telemental health: a 2013 review. *Telemedicine Journal and E-Health: The Official Journal of the American Telemedicine Association*, 19(6), 444–454. https://doi.org/10.1089/tmj.2013.0075
- Langarizadeh, M., Tabatabaei, M. S., Tavakol, K., Naghipour, M., Rostami, A., & Moghbeli, F. (2017). Telemental Health Care, an Effective Alternative to Conventional Mental Care: a

- Systematic Review. *Acta Informatica Medica: AIM: Journal of the Society for Medical Informatics of Bosnia & Herzegovina: Casopis Drustva Za Medicinsku Informatiku BiH*, 25(4), 240–246. https://doi.org/10.5455/aim.2017.25.240-246
- Larson, E. H., Patterson, D. G., Garberson, L. A., & Andrilla, C. H. A. (2016, September).

 Supply and distribution of the behavioral health work force in rural America. (Data Brief #160). WWAMI Rural Health Research Center.

 https://depts.washington.edu/fammed/rhrc/wp-content/uploads/sites/4/2016/09/RHRC_DB160_Larson.pdf
- Lin, L. A., Casteel, D., Shigekawa, E., Weyrich, M. S., Roby, D. H., & McMenamin, S. B. (2019). Telemedicine-delivered treatment interventions for substance use disorders: A systematic review. *Journal of Substance Abuse Treatment*, 101, 38-49.
 https://doi.org/10.1016/j.jsat.2019.03.007
- Mayworm, A. M., Lever, N., Gloff, N., Cox, J., Willis, K., & Hoover, S. A. (2019). School-based telepsychiatry in an urban setting: Efficiency and satisfaction with care.

 Telemedicine and e-Health, 1–9. https://doi.org/10.1089/tmj.2019.0038
- Mental Health Technology Transfer Center (MHTTC) Network. (2020a). Clinical innovations in telehealth learning series. https://mhttcnetwork.org/centers/global-mhttc/clinical-innovations-telehealth-learning-series
- Mental Health Technology Transfer Center (MHTTC) Network (2020b). *Making a good connection: Engaging students and families in school tele-mental health.*https://mhttcnetwork.org/centers/global-mhttc/making-good-connection-engaging-students-and-families-school-tele-mental

- Mid-America Mental Health Technology Transfer Center (MHTTC). (2020a). https://mhttcnetwork.org/centers/mid-america-mhttc/home
- Mid-America Mental Health Technology Transfer Center (MHTTC). (2020b, April 28).

 *Telehealth learning and consultation (TLC) Tuesdays.

 https://mhttcnetwork.org/centers/mid-america-mhttc/telehealth-learning-and-consultation-tlc-tuesdays
- Miller, C. (n.d.). Supporting teenagers and young adults during the coronavirus crisis: Tips for parents with older children at home. Child Mind Institute. Retrieved on April 15, 2020, from https://childmind.org/article/supporting-teenagers-and-young-adults-during-the-coronavirus-crisis/
- Morton, H. (2020, August 20). *Broadband 2020 legislation*. National Conference of State Legislatures. https://www.ncsl.org/research/telecommunications-and-information-technology/broadband-2020-legislation.aspx
- Mountain Plains Mental Health Technology Transfer Center (MHTTC). (2020a). https://mhttcnetwork.org/centers/mountain-plains-mhttc
- Mountain Plains Mental Health Technology Transfer Center (MHTTC). (2020b). *Rural mental health*. https://mhttcnetwork.org/centers/mountain-plains-mhttc/rural-mental-health
- Myers, C. R. (2019). Using telehealth to remediate rural mental health and health care disparities. *Issues in Mental Health Nursing*, 40(3), 233-239. https://doi.org/10.1080/01612840.2018.1499157
- Pacific Southwest Mental Health Technology Transfer Center (MHTTC). (2020). *Telehealth clinical and technical considerations for mental health providers*. https://cars-rp.org/_MHTTC/docs/Telehealth%20Clinical%20Considerations.pdf

- Pfefferbaum, B., & North, C.S. (2020, April 13). Mental health and the Covid-19 pandemic [Perspective]. *New England Journal of Medicine*, 383, 510-512. https://doi.org/10.1056/NEJMp2008017
- Operation PAR Inc. (n.d.). Behavioral tele-health session checklist. [Flyer]. Copy archived at https://mhttcnetwork.org/sites/default/files/2020-03/PAR_checklist.pdf
- Operation PAR Inc. (n.d.). Tele-Health from Home Checklist. [Flyer]. Copy archived at https://mhttcnetwork.org/sites/default/files/2020-03/PAR_Working%20from%20Home%20Safety%20Checklist.pdf
- Roberts, H. J., Baker, D. C., & Gillaspy, S. (2020, July 9). *Providing mental health telehealth services in farming and rural communities*. Mountain Plains Mental Health Technology

 Transfer Center (MHTTC). https://mhttcnetwork.org/centers/mountain-plains-mhttc/event/providing-mental-health-telehealth-services-farming-and-rural
- Reid, D. A., Seitz, J., Friedman, S., Marton, A. R., Khaikin, C., & de la Gueronniere, G. (2020, April). *Fundamentals of 42 CFR part 2*. Legal Action Center.

 https://www.lac.org/resource/the-fundamentals-of-42-cfr-part-2
- Rural Health Information Hub (RHIhub) (2018). *Rural mental health*. https://www.ruralhealthinfo.org/topics/mental-health
- Rural Health Information Hub (RHIhub) (2019). *Health professional shortage areas: Mental health, by county, 2019.* https://www.ruralhealthinfo.org/charts/7
- Schroeder, S., Heitkamp, T., Clarke, B., Holiday, E., Breigenzer, A., & Johnson, S. (2020, June 16). Farm stress: Facts, impact of COVID-19, and resource and training needs of mental health care providers. Mid-America Mental Health Technology Transfer Center (MHTTC), Mountain Plains Mental Health Technology Transfer Center (MHTTC),

- Mountain Plains Addiction Technology Transfer Center (ATTC), and Mid-America Addiction Technology Transfer Center (ATTC).
- $\frac{https://mhttcnetwork.org/centers/mountain-plains-mhttc/product/farm-stress-facts-impact-COVID-19-and-resource-and-training}{(No.1000)} \label{eq:mountain-plains-mhttc/product/farm-stress-facts-impact-COVID-19-and-resource-and-training}$
- Shigekawa, E., Fix, M., Corbett, G., Roby, D. H., & Coffman, J. (2018). The current state of telehealth evidence: A rapid review. *Health affairs (Project Hope)*, *37*(12), 1975–1982. https://doi.org/10.1377/hlthaff.2018.05132
- Smith, A., Thomas, E., & Snoswell, L. (2020). Telehealth for global emergencies: Implications for coronavirus disease 2019 (Covid-19). *Journal of Telemedicine and Telecare*, 26(5), 309-313. https://journals.sagepub.com/doi/full/10.1177/1357633X20916567
- Stephan, S., Lever, N., Bernstein, L., Edwards, S., & Pruitt, D. (2016). Telemental health in schools. *Journal of Child & Adolescent Psychopharmacology*, 26(3), 266–272. https://doi-org.libproxy.unl.edu/10.1089/cap.2015.0019
- The Office of the National Coordinator for Health Information Technology. (n.d.). *Disclosure of substance use disorder patient records: Does part 2 apply to me?* Substance Abuse and Mental Health Services Administration (SAMHSA). Retrieved April 1, 2020, from https://www.samhsa.gov/sites/default/files/does-part2-apply.pdf
- Telebehavioral Health Institute (2017). *Telebehavioral health institute informed consent library*. http://naadac.org/assets/2416/Marlene_maheu_ac17ho2.pdf
- Torales, J., O'Higgins, M., Castaldelli-Maia, J. M., & Ventriglio, A. (2020). The outbreak of COVID-19 coronavirus and its impact on global mental health. *The International journal of social psychiatry*, 66(4), 317–320. https://doi.org/10.1177/0020764020915212

- Totten, A. M., Hansen, R. N., Wagner, J., Stillman, L., Ivlev, I., Davis-O'Reilly, C., Towle, C., Erickson, J. M., Erten-Lyons, D., Fu, R., Fann, J., Babigumira, J. B., Palm-Cruz, K. J., Avery, M., & McDonagh, M. S. (2019). *Telehealth for acute and chronic care consultations: Comparative effectiveness review no. 216.* Prepared by Pacific Northwest Evidence-based Practice Center under Contract No. 290-2015-00009-I. (AHRQ Publication No. 19-EHC012-EF). Agency for Health care Research and Quality. https://doi.org/10.23970/AHRQEPCCER216
- UC Davis Health. (2020). Parent child interaction therapy: Telehealth resources. https://pcit.ucdavis.edu/telehealth-resources/
- U.S. Department of Health and Human Services. (2020, July 28). HHS issues new report highlighting dramatic trends in medicare beneficiary telehealth utilization amid COVID-19 [Press Release]. https://www.hhs.gov/about/news/2020/07/28/hhs-issues-new-report-highlighting-dramatic-trends-in-medicare-beneficiary-telehealth-utilization-amid-covid-19.html
- U.S. Department of Health and Human Services, & U.S. Department of Education. (2008, November). Joint guidance on the application of the family educational and privacy act (FERPA) and the health insurance portability and accountability act of 1996 (HIPPA) to student health records. https://www2.ed.gov/policy/gen/guid/fpco/doc/ferpa-hippa-guidance.pdf
- Vanderbilt Kennedy Center. (2020). Free resources for autism and care amid COVID-19 pandemic. https://vkc.vumc.org/vkc/triad/covid19/
- Weigel, G., Ramaswamy, A., Sobel, L., Salganicoff, A., Cubanski, J., & Freed, M. (2020, May 11). Opportunitites and barriers for telemedicine in the U.S. during the COVID-19

emergency and beyond. Kaiser Family Foundation. https://www.kff.org/womens-health-policy/issue-brief/opportunities-and-barriers-for-telemedicine-in-the-u-s-during-the-covid-19-emergency-and-beyond/

- Yao, H., Chen, J. H., & Xu, Y. F. (2020). Patients with mental health disorders in the COVID-19 epidemic. *The lancet. Psychiatry*, 7(4), e21. https://doi.org/10.1016/S2215-0366(20)30090-0
- Ziller, E. C., Anderson, N. J., & Coburn, A.F. (2010). Access to rural mental health services:

 Service use and out-of-pocket costs. *The Journal of Rural Health*, 26(3), 214-224.

 https://doi.org/10.1111/j.1748-0361.2010.00291
- Zoom Video Conference, Inc. (2020). *About*. Retrieved September 09, 2020 from https://zoom.us