



Transitioning Behavioral Healthcare in Louisiana Through the COVID-19 Pandemic: Policy and Practice Innovations to Sustain Telehealth Expansion

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Abstract

A statewide COVID-19 quarantine order forced an abrupt shift for Louisiana’s behavioral health providers who provide mental health and substance abuse treatment services. The Center for Evidence to Practice conducted a study of this unprecedented shift to better understand the disruption and continuation of care during early statewide adoption of telemental health. The Center performed a mixed-method assessment including a series of focus groups and key informant interviews followed by a survey of over 300 responding providers. Over 85% of providers reported sustaining behavioral health services using a variety of telemental health strategies. While traditional referral networks and client volume were significantly disrupted, temporary relaxation of Medicaid regulatory and reimbursement policies appeared to be a key facilitator of telemental health adoption and continued services. Shifting to telemental health relied on provider’s quick adaptations, engaging clients with a hybrid of teleconferencing platforms, calls/texts, and socially-distanced in-person visits. Larger multi-clinician providers and evidence-based practice (EBP) providers were better equipped to support the adoption of telemental health. Rural and EBPs providers disproportionately discontinued services. Although many practitioners viewed the original COVID-19 pandemic as a short-lived condition, the recent emergence of Delta and other variants has shown the impact on the BH care system may be lasting. Flexibility across policies and a variety of telemental health platforms are keys to telehealth adaptation. However, the contraction of the client base raises concerns of increasing disparities among vulnerable and hard-to-reach populations if telemental health becomes a sustained approach in response to future COVID-19 variants.

Keywords Evidence-based practice · COVID-19 · Delta variant · Telemental health · Telehealth · Digital divide · Innovation · Behavioral health care · Referral networks

Louisiana Telemental Health Policy and Practice Innovations

The Louisiana Department of Health (LDH), Office of Behavioral Health (OBH), is engaged in an initiative to increase the utilization of evidence-based practices (EBPs) to improve the quality of accessible Medicaid mental health

and substance abuse care statewide. The Center for Evidence to Practice (The Center) works to facilitate the statewide expansion of EBPs by training and monitoring Louisiana’s provider networks. The Center was in the process of upscaling multiple EBPs when the COVID-19-related transition to telemental health occurred, placing the Center at the confluence of Louisiana’s provider networks, managed care organizations, and state government, allowing for real-time assessment of this unprecedented shift.

The novel coronavirus 2019 (COVID-19) was first documented in Louisiana in March of 2020, and Louisiana Governor John Bel Edwards declared a stay at home order in an attempt to reduce further transmission of the virus (Louisiana Office of the Governor, 2020). Mass traumatic experiences such as pandemics and other natural disasters substantially increase the need for mental health

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services for children and adults (Furr et al., 2010; Gurwitch et al., 2020; Phillippi et al., 2019; SAMSHA, 2018). With COVID-19, Louisiana's behavioral healthcare networks faced a tremendous challenge reminiscent of the one faced in 2005 with Hurricane Katrina. Following Hurricane Katrina, a study of Louisiana, Alabama, and Mississippi residents from storm-affected areas demonstrated that only 45.5% of those previously in care and 18.5% of those newly initiating behavioral health care had received a behavioral health visit within 6–8 months of the Hurricane (Wang et al., 2008). The lesson Hurricane Katrina held for state and local agencies was that even a temporary loss of behavioral healthcare infrastructure causes severe, enduring disruptions in access and continuity of behavioral health care.

During the initial COVID-19-related shutdowns, behavioral healthcare providers were recommended not to see patients face-to-face by the LDH. In response, Louisiana lawmakers passed legislation to allow providers to use remote technology and methods to conduct behavioral healthcare – aka telemental health – which included video conferencing, phone calls, and texts (H.B. 449, Louisiana Department of Health, 2020). In an effort to transition from in-person care to telemental health rapidly, state legislation eased regulations allowing clinicians to engage with clients on telemental health technologies that, previously, did not achieve HIPAA or other privacy standards (US Department of Health and Human Services, 2020; Wicklund, 2020). Subsequently, Louisiana's telemental health usage increased substantially during the pandemic (Zarefsky, 2020). This accessibility has seemingly provided a powerful strategy to meet population needs in a complex crisis, but not without concerns.

Several previous studies have outlined the potential challenges and benefits of telemental health for clients and clinicians (Cain & Sharp, 2016; Hilty et al., 2013; Myers & Cain 2008; Myers et al., 2010; Patel et al., 2020; Patel, Huskamp, et al., 2020). Obstacles to utilization include rural residence, age group, and patient and provider acceptance (Gurwitch et al., 2020; Marcin et al., 2016; Van Beuskesom, 2020; Wood et al., 2020). There is also growing concern of healthcare disparities caused by individuals lacking technological knowledge and access to digital devices, data plans, broadband, etc. (Morland et al., 2015; Sevocity, 2020; Smith et al., 2020; Van Beuskesom, 2020; Vis et al., 2018). These challenges were noted even in non-emergency and carefully planned contexts.

A pre-pandemic systematic literature review on telemental health performance determined that the most critical elements of high-quality telemental health care are the clinician-client therapeutic alliance, the usability of the technology, client convenience, and the training of clinicians (Vis et al., 2018). In comparison to in-person care, telemental health has demonstrated a significant increase

in patient access, convenience, and in some cases, better quality care (Chakrabarti, 2015; García-Lizana & Muñoz-Mayorga, 2010; Hilty et al., 2013; Patel et al., 2020a, b). Improvements in patient satisfaction, patient safety, quality of care, and cost reductions have been observed (Marcin et al., 2016). Prior to the COVID-19 pandemic, only small gains in the national utilization of telemental health occurred despite the known benefits. There are known barriers to widespread implementation, including persistent obstacles from insurers, state lawmakers, and Medicaid agencies, as illustrated by the American Telemedicine Association in their annual reports (Blumenstyk, 2020; Wicklund, 2017; Wind et al., 2020). Furthermore, the specific question of sustained fidelity to established EBP treatment models in a telemental health environment has created additional resistance regarding the potential loss of the conditions under which EBPs were originally proven (King & Bosworth, 2014).

The Center's role as an intermediary organization offers a unique position to monitor the ongoing impacts of COVID-19 on Louisiana's provider networks. The goal of the following study was to understand the disruption and continued operation of behavioral healthcare services using telemental health through the course of the pandemic. This study investigates the state's abrupt transition to telemental health amidst a pandemic, including differential effects on the sustained availability of EBPs. The first aim was to discern the degree to which the abrupt shift to telemental health impacted behavioral healthcare operations in Louisiana and whether there were significant differences among providers who continued or discontinued providing care. The second aim was to determine the nature of disruptions that providers encountered during this transition and how they adapted their practice to best serve clients via telemental health platforms. Overall, the study aimed to identify practice and policy implications, concerns, and strategies to support the utilization of telemental health services for behavioral health clients in Louisiana.

Methods

Study Design

The context of the study is that it occurred at the beginning of the COVID-19 pandemic and focused on behavioral health providers primarily affiliated with Medicaid across the state of Louisiana. The study employed a mixed-methods design to capture a variety of provider conditions and cross-validate quantitative and qualitative findings to reliably relate provider conditions to policymakers and stakeholders. This effort was conducted in four distinct steps: (1) the review of a prior multi-site provider agency's quality assurance survey; (2) the facilitation of a series of focus groups

and key informant interviews of partners and providers; (3) the administration of a statewide provider survey; and (4) a post hoc comparison of survey results against prior qualitative data to offer context and uncover additional novel findings and questions for future research. All research activities were reviewed by LSUHSC IRB and deemed non-human subject research.

Overall Study Population

The population of Medicaid-funded providers to have been impacted by the COVID-19 emergency in Louisiana was estimated by the Center through Medicaid claims data to be nearly 4000 single clinician and multi-clinician agencies, including 772 child-specific behavioral healthcare providers and 3219 child and adult behavioral health providers.¹ At the time of the study, the Center had identified and established relationships with 1554 of these Medicaid-funded providers within its training listserv. The Center listserv served as the conduit to reach the telehealth survey study population. This group, representing 40% of the overall Medicaid-provider population, was the focus of the study.

Data Collection

Step 1 examined secondary data from a recent prior administrative survey performed by a large, multi-site Louisiana behavioral health network 1 month after the stay at home order. The Center for Families and Children (FCFC) network – also a Center-affiliate – covers 6 parishes serving urban and rural populations covering 10 sites via clinic and home visits. The network-wide quality assurance survey queried all 128 staff and clinicians for the most critical issues and experiences regarding the transition to telehealth. The Center performed a thorough review of the survey data, extracting questions that indicated critical shifts in care using telehealth. For any open-ended questions, predominant themes were extrapolated and the following qualitative methods were followed. Three reviewers coded themes that emerged with a minimum of two coding the same data. These findings guided questions added to the Center's qualitative interview guide described in *Step 2*.

Step 2 involved conducting a series of five regional focus groups and seventeen key informant interviews. Five focus groups were held throughout the state with a total of twenty-three various stakeholder participants. The seventeen key

informant interviews included nine clinicians and eight agency directors. These participants represented nine small clinics (one to five clinicians), five medium clinics (five to ten clinicians), and three large organizations (ten or more clinicians). Focus group participants and key informant interviewees were gathered as a convenience sample of those actively leading or implementing behavioral health care for Medicaid-funded activities in the five of the ten state health district regions. The sample for focus groups consisted of directors of Local Governing Entities (LGEs) also known as Human Service Districts, large and small agency leads, the Center's advisory committee members, as well as behavioral health stakeholders such as judges and school-based social workers across the state. Recruitment for both focus groups and interviews occurred as a targeted invitation email. Recruitment of participants for the more in-depth key informant interviews specifically targeted agency directors and clinicians.

Focus Group and Key Informant Interview Guide

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- *Organizationally, how are you (the Provider) doing in the midst of COVID-related impacts to care?*
 - *Successes (What's going well?)*
 - *Challenges (What isn't going well?)*
 - *Is telemental health fully operational?*
 - *Has your agency lost staff?*
 - *Are you able to see clients? Is there a significant decrease in services provided?*
 - *Are you still serving the same population?*
 - *What have you been experiencing with client retention?*
 - *What are you hearing from clients regarding accessing services?*
 - *Do you think that the programs that are provided via telemental health are effective?*
 - *What payment types do you accept?*
 - *If Medicaid is billed, what are your experiences with billing and reimbursement since the pandemic?*
 - *What evidence-based programs are you using?*
 - *What supports are you receiving to implement these programs? What additional supports are needed?*
 - *Are you interested in other Evidence-Based Programs?*
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Robust efforts were made to protect participant anonymity. Focus groups and key informant interviews were not recorded; instead, note-takers were present during all sessions. Notes and qualitative responses were gathered and coded by four coders, with at least two separately coding the same data for inter-rater reliability. In the case of conflicting results between coders, discussions as a group were held until a consensus was reached. Together, these focus groups and key informant interviews provided rich and diverse qualitative data which were examined for recurring themes (based on the number of mentions) and for the diversity of experiences across contexts. These themes informed both the questions and response options used in the qualitative survey described in *Step 3*.

¹ Report: Louisiana Behavioral Health Provider Survey of Adult services: Results from the 2018 Self-Report Survey of Louisiana Medicaid and State Contracted Providers (2018). <https://ldh.la.gov/assets/docs/MyChoice/2018-LA-ADULT-BEHAVIORAL-HEALTH-Survey.pdf>.

Step 3 utilized the qualitative themes resulting from Step 1 and Step 2, to produce a 26-item quantitative telemental health survey, constructed in REDCap (Research Electronic Data Capture), (Harris et al., 2009) that was distributed to the Center’s network of behavioral health providers via the Center’s listserv (1554 providers). The survey was released on June 2020, 4 months following the stay at home order. Survey items were designed to measure the impact of factors associated with discontinued, diminished, sustained, or increased provision of care using various telemental health approaches. These factors included the geographic setting of the provider (i.e., rural, urban, or regional — which cover one of ten state health districts), treatment models offered (i.e., general treatment models or EBP specific treatment models), agency size (i.e., single-clinician agencies or multi-clinician agencies), and types of telemental health approach used (i.e., audio/video, phone/text, and others).

Outcome variables included gains or losses in the number of continuing practices, clients, clinicians, and referrals, as well as the choice of telemental health approach. To determine if some clinicians or provider agencies were affected more significantly by the transition to telemental health, tests of significance were performed across subgroups using STATA14. Chi-square, logistical and multinomial regression, and odds ratio analyses were used to examine significant univariate, bivariate, and multivariate associations across groups.

Finally, *Step 4* involved a post hoc triangulation process with combined qualitative data to quantitative data to validate support and/or explain survey findings. While Step 3 generated a survey instrument that combined the thematic qualitative findings of previous steps, the final step looked at all data sources together to place the qualitative survey data in context and potentially identify new themes, refine potential hypotheses explaining survey outcomes, and note areas for additional future research. The results of Step 4 are primarily presented in the Discussion section.

Results

Themes from the Multi-Site Behavioral Health Organization Survey

While the primary contents of the CFCF network’s administrative quality assurance survey are internal to that organization, the key quantitative and qualitative information drawn from the survey centers around themes of rapid and successful adaptation of telehealth, with some concerns. From this data gathered from 128 CFCF clinicians and staff, the Center extrapolated the following observations: (1) Training clinicians in delivering care made a substantive difference in telehealth service delivery quality. (2) There were real

barriers clients faced to accessing telehealth, most centered in technology access, costs and knowledge, and some clients refused telehealth care altogether. (3) Clinicians and provider organizations were being highly innovative and flexible with telehealth platforms to reach clients however they could. (4) There was strong clinician optimism that telehealth services could sustain a therapeutic alliance and reach effective treatment outcomes with clients.

Qualitative Study Populations and Primary Themes

Four primary themes emerged from the individual interviews and focus groups. These included (1) widespread and rapid adoption of telemental health across all clinical settings; (2) many providers’ experiences of a “devastating” cascade of losses of clients and referrals; (3) a need for technical and practical support and training for successful deployment of telemental health, as well as real-time innovations to reach clients; and (4) the primary barriers involved a lack of client access to technology which excluded clients from care.

Telehealth Survey Results

From June 8th to July 7th, 2020, over 1554 surveys were disseminated by email to the Center’s listserv. A total of 483 (31.1%) of recipients opened the email and 307 (19.7%) participants completed the survey. Three-quarters of the respondents (75.1%, 226) practiced in urban settings, 13% (41) in rural areas, and 11.9% (39) as regional providers, which due to their extensive rural coverage were included as rural providers. Two thirds (67.4%, 206) of respondents represented multi-clinician agencies and a third (32.6%, 101) were independent or single clinicians. Most participants (88%, 270) reported treating both children and adults, with only 11% (36) of providers reporting exclusively treating clients over 18 years old. Survey participants were given the option to answer for general behavioral health treatment approaches (85.8%, 263) or specifically responding about one of twelve EBP treatment models (14.3%, 44) known to be used in Louisiana (see Table 1).

The Continuation of Behavioral Health Care After the Stay at Home Order

Our principal findings showed that within 4 months of the initial March 2020 stay at home order, 85.3% (262) reported continuing to provide behavioral health care through various telemental health approaches, while 14.7% (45) reported discontinuing care. Over two-thirds of urban providers continued services at (67.8%, 208) while 32.2% (18) reported

Table 1 Descriptive, Bivariate and Multivariate Analysis of Factors Associated with Continued and Discontinued Service

Characteristic	Descriptive and Significant Bivariate Analyses			Multivariate Analysis	
	Total	Continued Service	Discontinued Service	Odds Ratio (95%CI)	ρ Value
	No. (%)	no. (%)	no. (%)		
Treatment Model		$(\rho=.003)$			
All treatment models	192 (63%)	173 (66.3%)	19 (43.2%)	Reference	
Evidence-based Practice (EBPs)	113 (37%)	88 (33.7%)	25 (56.8%)	0.48 (0.23-0.99)	.049
Urban vs Rural		$(\rho < .001)$			
Urban Providers	226 (75%)	208 (80.9%)	18 (40.9%)	Reference	
Rural & Traveling Providers	75 (25%)	49 (19.1%)	26 (59.1%)	0.18 (0.09-0.37)	<.001
Client Lost vs Sustained					
Lost Clients	140 (46%)	122 (46.9%)	18 (40.91%)	Reference	
Sustained Clients	164 (54%)	138 (53.1%)	26 (59.1%)	0.70 (0.32-1.52)	.37
Number of Clinicians in Practice		$(\rho=.03)$			
Single Clinician	99 (33%)	82 (31.7%)	17 (39.5%)	Reference	
Multiple Clinicians	203 (67%)	177 (68.3%)	26 (60.5%)	1.24 (0.57-2.70)	.59
Referrals Lost or Sustained					
Referrals Lost	146 (48%)	122 (46.7%)	24 (54.6%)	Reference	
Referrals Sustained	159 (52%)	139 (53.3%)	20 (45.5%)	1.49 (0.71-3.15)	.29

discontinuing services. Of rural and region providers, 65.3% (49) continued service and 35.7% (26) discontinued service. Of those providing EBPs, 33.7% (88) continued services, and 56.8% (25) discontinued care, reported providing EBP treatment model. Table 1 shows significant associations among providers that discontinued care. Those providing EBPs were 51% less likely to continue care ($OR: 0.48; p: 0.049$) and those providing care in rural locations were 72% less likely to continue care ($OR: 0.18; p: < 0.000$) when controlling for all surveyed characteristics. The EBP finding is perhaps counter-intuitive and requires further explanation. Of the forty-four providers reporting discontinuing care, nearly half (48.9%, 22) occurred among one specific child-focused EBP – Nurse-Family Partnership (NFP). It is significant to note that NFP is the only EBP in our study which is not eligible for Medicaid reimbursement in Louisiana and as such NFP did not benefit from the Medicaid regulatory flexibility described previously as an important facilitator of telemental health. It is equally important to note that four NFP providers were able to continue services during the initial phase of COVID-19, indicating the potential efficacy of this evidence-based model in a telemental health environment if policies and technical assistance supported such.

EBP and General Treatment Model Providers

Surveys asked providers to respond for their experience providing either EBP or general treatment models. Nearly two thirds (62.5%) of participants responded regarding their general treatment models (192) and the remaining third (37.5%) responded specifically regarding EBP treatment model(s).

These two groups were similar among most characteristics except for rurality and the number of clinicians in the practice. EBP treatment model providers were half as likely as general treatment model providers to practice in a rural setting ($OR: 0.510; p: 0.022$). Also, EBP treatment models were half as likely to be performed by single clinician practices compared to multiple clinician practices ($OR: 0.500; p: 0.012$) (see Table 2).

Shutdown-Related Disruptions to Care (Client, Clinician, and Referral Changes)

At the 4-month mark of COVID-19 precautions being in place, over half of providers (total: 53.1%, 165) reported that they either maintained (34.9%, 106) or increased client loads (19.1%, 58). The remaining half (46.1%, 140) reported a precipitous loss of clients. Referral patterns were similar, with over half (52.4%, 161) of the providers maintaining referrals at the same levels (33.1%, 102) or increasing referrals (19.9%, 59).² The remaining providers reported referral loss (47.0%, 146). The magnitude of referral variation was different across providers, with (51.0%, 87) reporting an increase in referrals between 0 and 50% and (7, 12.1%) indicating an increase of 50–75%. Of providers that reported referral loss, (51.7%, 75) reporting a loss of 50–100% of normal levels, and the remaining half (48.2%, 71) indicated a decrease of 0 to 50% in referrals (see Fig. 1).

² For simplicity of analysis, we combined “stayed the same” with “gained”; therefore, client, clinician, and referral variables are binary (i.e., 0=lost clients/clinicians/referrals, 1=stayed the same or gained).

Table 2 Descriptive, Bivariate and Multivariate Analysis of Factors Associated General Treatment Models vs. EBP Treatment Models

Characteristic	Total	Descriptive and Significant Bivariate Analyses		Multivariate Analysis	
		EBP	All Treatment	(95%CI) Odds Ratio	p Value
		no. (%)	no. (%)		
Urban vs Rural ***					
		(p=.003)			
Urban Providers	224 (75%)	73 (65.2%)	151 (80.8%)	Reference	
Rural & Traveling Providers	75 (25%)	39 (34.8%)	36 (19.2%)	0.51 (0.28-0.91)	.02
Client Lost vs Sustained					
Lost Clients	138 (46%)	49 (43.4%)	89 (47.1%)	Reference	
Sustained Clients	164 (54%)	64 (56.6%)	100 (52.9%)	0.70 (0.40-1.22)	.21
Number of Clinicians in Practice					
		(p=.02)			
Single Clinician	99 (33%)	28 (25.0%)	71 (37.8%)	Reference	
Multiple Clinicians	201 (67%)	84 (75.0%)	117 (62.2%)	0.50 (0.29-0.86)	.01
Referrals Lost or Sustained					
Referrals Lost	144 (48%)	60 (53.1%)	84 (44.2%)	Reference	
Referrals Sustained	159 (52%)	53 (46.9%)	106 (55.8%)	1.65 (0.95-2.88)	.08
Continued vs Discontinued Service					
		(p=.003)			
Discontinued Service	44 (14%)	25 (22.1%)	19 (9.9%)	Reference	
Continued Service	261 (86%)	88 (77.9%)	173 (90.1%)	2.05 (0.99-4.22)	.052

Overall, clinician staffing remained mostly unchanged (88.1%, 266), although 7.3% (14) of surveyed agencies lost clinicians and 4.6% (22) gained clinicians during this initial transition to telemental health. For some, disruptions in care were overlapping and interrelated. A third (33.6%, 103) of providers experienced both referral and existing client losses and another 6.3% (19) experienced client loss and clinician loss. As seen in Table 3, the factor most strongly associated with the loss of clients was the loss of referrals, though the direction of this relationship is unclear (*OR*: 0.13; *p*: <0.0001).

Utilization and Hybridization of Telemental Health Platforms

Nearly 85% (260) of all respondents reported transforming their practice predominantly to telemental health, with 53.7% (139) stating they were using “100% telemental health” and an additional 31.3% (81) stating they were using “75% or more telemental health” to provide services. Only 5.3% (14) of EBP providers reported a telemental health utilization of 50% or less. Though HIPAA and other regulations related to telemental health were eased, 76.2% (234) of

Fig. 1 Covid-related Change in Client Referrals: (n=307)

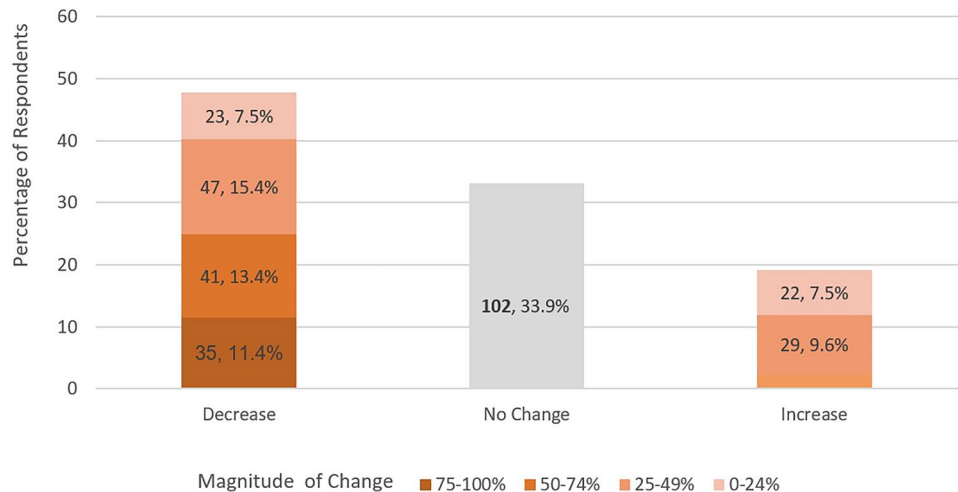


Table 3 Descriptive, Bivariate and Multivariate Analysis of Factors Associated with Clients Sustained vs. Clients Lost

Characteristic	Total	Descriptive and Significant Bivariate Analyses		Multivariate Analysis	
		Clients Sustained	Clients Lost	Odds Ratio (95%CI)	ρ Value
		no. (%)	no. (%)		
Treatment Model					
All treatment models	189 (63%)	100 (61.0%)	89 (64.49%)	Reference	
Evidence-based Practice (EBPs)	113 (37%)	64 (39.0%)	49 (35.51%)	0.69 (0.40-1.22)	.20
Urban vs Rural					
Urban Providers	225 (75%)	121 (74.7%)	104 (75.9%)	Reference	
Rural & Traveling Providers	74 (25%)	41 (25.3%)	33 (24.1%)	1.09 (0.57-2.07)	.80
Number of Clinicians					
		$(\rho < .001)$			
Single Clinician	99 (33%)	51 (31.7%)	48 (34.3%)	Reference	
Multiple Clinicians	202 (67%)	110 (68.3%)	92 (65.7%)	1.03 (0.59-1.80)	.93
Referrals Lost or Sustained					
		$(\rho < .001)$			
Referrals Lost	146 (48%)	43 (26.2%)	103 (73.6%)	Reference	
Referrals Sustained	158 (52%)	121 (73.8%)	37 (26.4%)	0.13 (0.07-0.21)	<.001
Continued vs Discontinued Service					
Discontinued Service	44 (14%)	26 (15.8%)	18 (12.9%)	Reference	
Continued Service	260 (86%)	138 (84.2%)	122 (87.2%)	1.50 (0.68-3.34)	.32

survey respondents reported using HIPAA-compliant audio/visual technologies with the remaining 12.1% (37) clinicians reporting using non-HIPAA compliant platforms. Most providers (70.8%, 217) reported using a telemental health “hybrid,” (i.e., the combination of audiovisual platforms, like Zoom, FaceTime, Google duo) and phone-based strategies (e.g., telephone calls, text messages). Several providers also reported socially distanced face-to-face encounters with clients.

Overall, the combination of *audio/visual + phone/text* was most commonly used (51.2%, 125) followed by *audio/visual + phone/text + face-to-face* encounters (20.8%, 60). Only 19.6% (48) of providers reported using an *audio/visual platform alone*. The remaining 4.2% (13) engaged clients in *face-to-face* and/or through *phone/text*. As seen in Fig. 2, across all treatment types, *audio/visual + phone/text* was the most utilized the hybrid mechanism for adult EBP providers (47.8%), general treatment (43.3%), and child EBP providers (35.7%). The second most utilized hybrid was *audio/visual + phone/text + face-to-face* with adult EBP providers (23.9%), general behavioral health treatment (23.3%), and child EBP providers (4.8%). The least utilized hybrid was *phone/text + face-to-face*.

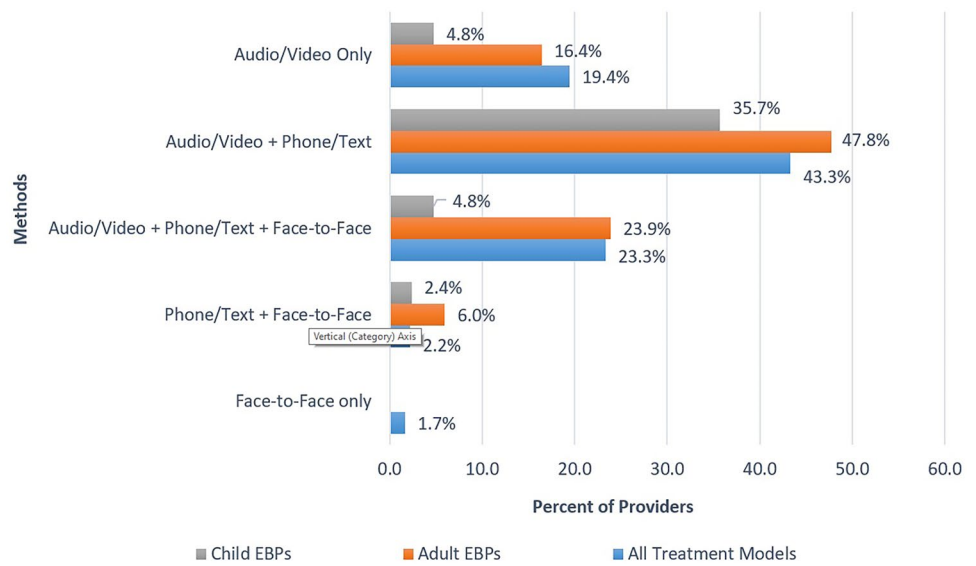
The number of clinicians in an agency was highly associated with the hybrid model used. As seen in Table 2, the majority of single clinician agencies opted for using the *audio/visual* platform alone (52.5%) compared to the 72% of multiple clinician agencies that utilized a hybrid of *audio/visual + phone/text* and another 83.1% that opted for *audio/visual + phone/text + face-to-face*. Single clinician agencies were 58% less likely to use the hybrid platform of *audio/*

visual + phone/text than an *audio/visual platform* (OR 0.42; p : 0.011) Table 4.

Discussion

This study examined how the COVID-19 pandemic quarantine and a statewide stay at home order disrupted behavioral health care in Louisiana. The findings highlight the novel ways in which telemental health technologies were utilized to maintain access to care across the state. The primary finding is that the vast majority (85%) of survey respondents reported continuing services for clients during the first 4 months of the pandemic. This success occurred despite substantial losses of clients and referrals. Focus group and key informant interviews described “a total shutdown of traditional referring agencies like courts, schools, the Office of Juvenile Justice, etc.” leaving providers scrambling to find new patients. Backup systems for referrals were lacking, and an agency director expressed the need to innovate beyond traditional referral pipelines remarking, “... referral of clients is low. We need to get in front of referral agencies like the Department of Children and Family Services (DCFS) to let them know that there is more than one place to refer clients.” Moreover, during the shutdown, behavioral health clinics, offices, hospitals, and referring agencies closed indefinitely. Louisiana was not alone in terms of losses. Similar client losses were reported across the USA by the electronic health records company, Sevocity®, which reported a 22.6% loss in business across 270 multi-specialty practices, with 71.8% of respondents reporting significant client loss (Sevocity, 2020).

Fig. 2 Hybrid Telemental Health by Treatment Model



Providers also felt that this initial client loss was in part due to patient and provider reluctance to adopt telemental health as an equivalent practice. One clinician stated, “*My biggest issue was when we went remote, clients were not interested in tele-services ... but they just wanted to wait until we came back [to face-to-face visits]. We went from 140–150 clients per week to 20–25 clients per week.*” There was some evidence that patients seemed unaware that behavioral health services were still available during the stay at home order. However, qualitative data revealed that a significant proportion of client loss was primarily due to lack of client access to devices, data, internet, and lack of

knowledge of technology. This serves as an early warning of a potential digital divide in accessing telemental health among those with higher access to technology platforms (e.g., zoom, smart devices, internet, and unlimited data plans).

According to this study, Louisiana produced a rapid and effective response to support continuing behavioral health-care in the midst of the COVID-19 disaster. This response included immediate changes to rules and regulations governing the use of telemental health and the ease of telehealth reimbursements. Also, timely assistance was offered through existing state infrastructure (e.g., the Center for Evidence

Table 4 Descriptive, Bivariate and Multivariate Analysis of Factors Associated with Hybrid Use

(AV: Audiovisual; T/P: Text/Phone; F2F: Face-to-Face)								
Characteristics	Total	Descriptive and Significant Bivariate Analyses			Multivariate Analysis			
		Telemental health Platform				AV only vs. AV+T/P		AV+T/P+F2F vs. AV+T/P
	no. (%)	AV Only	AV+T/P	AV+T/P+F2F	Odds Ratio (95%CI)	P Value	Odds Ratio (95%CI)	p Value
Treatment Model		<i>(p < .001)</i>						
All treatment models	166 (68%)	47 (75.8%)	77 (62.1%)	42 (71.19%)	Reference		Reference	
Evidence-based Practice	79 (32%)	15 (24.2%)	47 (37.9%)	17 (28.81%)	0.71 (0.34-1.46)	0.347	0.64 (0.32-1.27)	.20
Urban vs Rural								
Urban Providers	197 (82%)	51 (86.44%)	96 (78.05%)	50 (84.75%)	Reference		Reference	
Rural & Traveling Providers	44 (18%)	8 (13.56%)	27 (21.95%)	9 (15.25%)	0.55 (0.23-1.36)	0.196	0.69 (0.30-1.62)	.39
Client Lost vs Sustained								
Lost Clients	117 (48%)	27 (43.55%)	59 (47.97%)	31 (51.67%)	Reference		Reference	
Sustained Clients	128 (52%)	35 (56.45%)	64 (52.03%)	29 (48.33%)	1.22 (0.55-2.66)	0.627	0.73 (0.35-1.53)	.40
Number of Clinicians								
Single Clinician	77 (32%)	32 (52.46%)	35 (28.23%)	10 (16.95%)	Reference		Reference	
Multiple Clinicians	167 (68%)	29 (47.54%)	89 (71.77%)	49 (83.05%)	0.42 (0.21-0.82)	0.011	2.11 (0.94-4.70)	.07
Referrals Lost or Sustained								
Referrals Lost	116 (47%)	29 (46.77%)	59 (47.58%)	28 (46.67%)	Reference		Reference	
Referrals Sustained	130 (53%)	33 (53.23%)	65 (52.42%)	32 (53.33%)	0.96 (0.44-2.09)	0.909	1.14 (0.54-2.40)	.74

AV Audiovisual, T/P Text/Phone, F2F Face-to-Face

to Practice and its network of training and technical assistance affiliates) to inform providers of best practices in telemental health utilization as well as EBP specific training to sustain the quality of care offered by the workforce. Further success in continuity of care can also be attributed to providers' innovative thinking around the appropriate amalgamations of available technologies, using traditional and non-traditional platforms to engage clients "where they are." Less than 20% of providers used an audiovisual platform alone, instead, a majority of providers used a novel mix – or hybrid – of audiovisual platforms with calls, texts, and socially distanced face-to-face visits suggesting that clinicians adopted platforms based on what was accessible and convenient to clients. In the preliminary survey, providers reported an average of 64.3% clinician-time spent on audiovisual platforms and 31.0% on phone and texts. Providers stated that the key is "*knowing what the resources are and who is eligible for which*" while others informed us; "*all clients don't have technology for telehealth services... We serve large rural areas with no internet connections, even on phones and some clients can only text. We have to do some parts of the case plans in person.*" When in person, providers shared "*we provide masks for clients...[and] they were really excited about face-to-face meetings.*"

The importance of training – both receiving telemental health provider training and training families to receive telemental health – was a consistent factor in a successful transition to care in the pandemic. Multi-clinician agencies utilized more hybrids than single clinician agencies potentially due to increased training resources and quick diffusion of technology. Telemental health also varied across treatment models, with a surge in hybrid approaches used to sustain EBPs, with adult EBP hybrid utilization exceeding other treatment methods. This is counterintuitive to the view that EBPs, due to stricter fidelity standards, might underperform in a telemental health environment and instead supports the findings of Gurwitsch et al. (2020) that telemental health-treated families reported fewer barriers and higher responder rates than clinic-based families (Comer et al., 2017; Gurwitsch et al., 2020). The flexibility of hybrid telehealth allowed clinicians to reach more clients, enhance convenience, and generate new pathways to offer resources to clients which were not available before. For example, several providers reported using Facebook groups to engage therapy groups and distribute therapeutic information and resources.

Within the context of Louisiana's effort to increase the availability and utilization of EBPs, the use of telemental health initially introduced concern regarding quality of patient care. Historically, telemental health delivery of EBPs has been discouraged due to the challenges of achieving model fidelity equivalent to the level of efficacy demonstrated in randomized controlled trials "evidencing"

consistent positive behavioral outcomes (Chakrabarti, 2015; Hagermoser Sanetti & Kratochwill, 2014). Although the present study focused on the *continuity* of care, the *quality* of that care is a focal point as telemental health continues in a COVID-19-impacted care environment. Our previous Louisiana-based research indicated significant variation in key indicators of high-quality behavioral health practices when practitioners claimed to be offering EBPs (Phillippi et al., 2019). In the present study, 62% of the initial survey of clinicians reported spending "less time" to "much less time" per visit while using these platforms. Focus groups and key informant interviews reported similar findings that their visits were shorter but more frequent, especially with younger children who were less likely to remain focused for hour-long sessions. This raises concern that telemental health platforms unintentionally encouraged shorter visits, potentially compromising the clinical benefits of therapy typically attained with high model fidelity. Others argue that these shorter visits are a reflection of the increased convenience and efficiency of telemental health platforms, rather than a sign of lower-quality care.

Study Limitations

This study formed essentially as a natural experiment capturing provider experiences of the abrupt COVID-19-driven shift to telemental health in "real-time." The study is therefore lacking precision and specificity in research design. Survey sampling methods pose another limitation, as the dissemination of the survey represented a purposive sample of provider organizations with whom the Center and its partners affiliate, as opposed to the full universe of state providers. A related issue is the unknown proportion of providers that closed during the stay at home order and was therefore unable to access the survey. Several of these limitations are mitigated however by the number and diversity of completed surveys.

Finally, to highlight the use of EBPs in telemental health practice, clinicians were provided the choice to answer survey questions based either on all treatment models they deliver or a specific EBP treatment model. While this gives the Center a window in the implementation of telemental health-driven EBPs during the COVID-19 emergency, the EBP group alone does not provide population-generalizable findings, though it represented nearly 30% of the total study respondents.

Conclusion

Overall, our finding that 85% of clinicians continued behavioral health care for the months immediately following the stay at home order supports the notion that telemental health

is capable of being delivered and sustained among large populations, even in the context of a major pandemic. This study identified significant factors in continued care during the pandemic as referral loss, client loss, clinic size, rurality, and the adaptation of telemental health technologies key for provider and client alike.

Although in the early stages of the pandemic many practitioners viewed COVID-19 as a short-lived situation that they just had to “get through,” the recent emergence of the Delta variant has shown the impact on the behavioral health care system will be lasting. The uncertainty caused by Delta and other potential future variants is resulting in shifting care environments as patients’ and practitioners’ comfort levels with in-person treatment ebb and flow. Focusing efforts to support the continued use of telemental health care delivery in Louisiana will provide a greater reach and, hopefully, improved mental health outcomes among its residents as the state and nation continue to grapple with the challenge of COVID-19 and emerging variants.

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Declarations

Ethical Approval This research study was conducted retrospectively from data obtained for quality assurance purposes. We consulted extensively with the LSUHSC-NO Institutional Review Board (IRB) who determined that our effort did not need ethical approval.

Conflict of Interest The authors declare no competing interests.

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