The Use of Telehealth Within Behavioral Health Settings: Utilization, Opportunities, and Challenges

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KEY FINDINGS

Telehealth use among behavioral health providers is a promising strategy to reduce the maldistribution of professionals and improve access to mental health and substance use disorder treatment across the U.S. However, adoption of telehealth by behavioral health providers has lagged behind primary care and other physical health providers.

To better understand the utilization of telehealth among behavioral health providers, quantitative and qualitative data were collected from 329 behavioral health provider organizations representing all 50 states. Additionally, qualitative data were collected from ten key informants.

The majority of respondents believe telehealth is important to the success of their organization and a valuable tool for improving access to services and quality of care. Nearly half of the respondents (48%) reported that they use telehealth for behavioral health services. The most common type of telehealth being used is direct video conferencing. Psychiatrists are the most common behavioral health professional to use telehealth, followed by mental health counselors. Financial barriers to implementation were most commonly reported, which included lack of reimbursement; cost of implementation; and cost of maintenance. Other barriers identified by participants included a lack of organizational and political leadership; workforce shortages; educational and training barriers; client-related barriers; and compliance barriers such as licensure regulations.

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BACKGROUND

In 2016, more than half of the 44.7 million adults in the U.S. with mental illness, and approximately 35% of the 10.4 million adults in the U.S. with serious mental illness, did not receive mental health services. Additionally, in 2016, an estimated 21 million individuals aged 12 years or older needed substance use disorder (SUD) treatment, but only 3.8 million (18%) received treatment. Barriers to accessing behavioral health services exist across the country (e.g., individuals residing in rural areas could face challenges including having to travel long distances for services and a lack of anonymity in receiving treatment). These issues, coupled with challenges that impact behavioral health widely (e.g., inadequate funding, workforce maldistribution issues, lack of specialty services), create a great demand for innovative ways to provide care to individuals. Evidence supports that telehealth can help to overcome challenges in accessing behavioral health services to reduce the existing treatment gap.

The Health Resources and Services Administration defines telehealth as "the use of electronic information and telecommunications technologies to support long-distance clinical healthcare, patient and professional health-related education, public health and health administration." Telehealth includes the use of information and communication technology, including the use of electronic health records (EHRs), streaming media, and video conferencing, to exchange health information and provide health services.

Telehealth can be used across the continuum of care to deliver and enhance behavioral health services. The Substance Abuse and Mental Health Services Administration (SAMHSA) identified examples of telehealth used across six domains of care illustrated in Table 1 below. There are telehealth tools available to support care at each step in the care process from assessment to collaboration.

Table 1. Telehealth across the Behavioral Health Continuum of Care2

| Domain | Telehealth Example |
|----------------------------------|--|
| Assessment | Online substance use questionnaire |
| Treatment | Cognitive-behavioral therapy through videoconferencing |
| Medication management/monitoring | Text message reminders to take medications as directed |
| Continuing care | Group chats for relapse prevention |
| Education | Webinars for clients and providers |
| Collaboration | Interactive video for consultation |

Unlike other types of health care, behavioral health care includes a unique set of challenges that impacts the provision of and access to services. These challenges may be exacerbated in rural areas. One challenge in providing behavioral health services is the maldistribution of behavioral health and specialty health providers. Workforce shortages in certain geographic areas are driven by multiple issues, including: low pay compared with peers in other settings;

professional isolation; difficulty for spouses to find work; few social outlets and educational opportunities; and difficulties adjusting to rural life.² Telehealth can help alleviate the effects of workforce maldistribution by providing a linkage between clients in their home communities and behavioral health providers in other locations.

Additionally, anonymity and privacy can be important to individuals seeking services associated with mental illness and SUD. In rural communities, many individuals face a lack of privacy or anonymity2 and could be more easily identified when seeking behavioral health treatment than individuals living in non-rural areas. This might lead to a resistance to seek face-to-face treatment or services. Telehealth could help address this issue by providing services through videoconferencing, allowing the individual to remain at home or in another space where they are comfortable.

Effectiveness of Telehealth within Behavioral Health

There is a growing body of evidence demonstrating the effectiveness of telehealth at facilitating positive health outcomes.9, 5-6 A systematic review conducted by the Agency for Healthcare Research and Quality found sufficient evidence supporting the effectiveness of telehealth for psychotherapy.7 Results from a pilot study looking at the relations between trauma-focused cognitive-behavioral therapy (CBT) via telehealth (i.e., via one-on-one videoconferencing) and outcomes in 15 adolescents in southeastern U.S.8 revealed that each component of the trauma-focused CBT model could be delivered via telehealth without compromising program model fidelity. Telehealth services resulted in statistically significant clinical improvements and high satisfaction ratings from client caregivers and providers alike. The researchers noted that the findings were comparable to treatment results yielded in office-based settings.

A randomized controlled study of 100 participants over 105 weeks found that a comprehensive online depression care management program resulted in lowered depression, better overall mental health, increased satisfaction with mental health care and coping skills, and increased confidence in handling depression. A recent SAMHSA publication on the use of technology-based therapeutic tools in behavioral health services reported that the use of telephones has been shown to improve treatment and medication compliance; monitor recovery from mental illness and SUD; and motivate potential clients to enter treatment. The report also noted that telephonic interventions resulted in reduced symptoms of anxiety and depression. These and other findings support the adoption and implementation of telehealth as an effective tool for promoting recovery and wellness.

Policies Impacting Telehealth Adoption

Licensure

As of 2017, nine state medical boards issue telehealth-specific licenses or certificates (Alabama, Louisiana, Maine, Minnesota, New Mexico, Ohio, Oregon, Tennessee [osteopathic board only], and Texas). These licenses allow out-of-state providers to furnish telehealth services in a state that they are not located. Twenty-two additional states have adopted the Federation of State Medical Boards' Interstate Medical Licensure Compact allowing for "an Interstate Commission to form an expedited licensure process for licensed physicians to apply

for licenses in other states."10 These special licenses and certificates could increase the number of providers eligible to provide telehealth services across state lines reaching a greater number of clients in need of services.

Prescribing and Dispensing

The Ryan Haight Online Pharmacy Consumer Protection Act, enacted in 2008, prohibits dispensing controlled substances online or through internet prescribing without a "valid prescription." For a prescription to be valid, in most cases, a physician must conduct an inperson medical evaluation. Although the Ryan Haight Act permits medical evaluations via telemedicine, it restricts the practice of telemedicine to patient encounters in which the patient is "being treated by, and physically located in, a hospital or clinic" or "while the patient is being treated by, and in the physical presence of a practitioner." 11 Additionally, the Drug Enforcement Administration (DEA) requires that prescribers register in each state in which the provider has a professional practice where controlled substances are "stored, administered, or dispensed by a person." 12 Presently, SAMHSA does not allow Opioid Treatment Programs (OTPs) to provide medical assessment on patients remotely. This acts as a barrier when programs do not have medical staff onsite at all times. These regulations act as barriers for patients accessing services and providers attempting to serve a greater number of patients when the intervention requires pharmacotherapy with a controlled substance.

Federal Reimbursement for Telehealth

The Centers for Medicare and Medicaid Services (CMS) reimburse some providers for telehealth services through Medicare or Medicaid. Medicare limits its reimbursement for telehealth to rural areas. Medicare reimburses eligible practitioners for a limited number of telehealth services within the Medicare Part B program. For telehealth to be reimbursed through Medicare, the location of an eligible Medicare beneficiary at the time of the service, also known as the originating site, must be located in either a county outside of a Metropolitan Statistical Area or in a health professional shortage area in a rural census tract. 13 In 2013, CMS expanded the definition of "rural" to also include all sites located within a metropolitan statistical area that: (1) are classified by the Office of Rural Health Policy as rural, and (2) have a sufficiently high Rural Urban Commuting Area score.14 This definition greatly expanded the number of sites where CMS will reimburse for telehealth services. Additionally, at the state level, more than 200 telehealth-related bills were introduced in the 2017 legislative session, the majority of which addressed reimbursement in Medicaid programs or among private payers, established telehealth professional board standards, and addressed cross-state licensing.10 The restriction on Medicare reimbursement to rural areas limits the impact telehealth can have on communities nationwide that would benefit from telehealth services.

Currently, 48 states and the District of Columbia reimburse for some form of telehealth through their Medicaid programs. Massachusetts and Rhode Island are the only states without written definitive Medicaid reimbursement policies for telehealth. Some state Medicaid programs have regulations that limit the type of facility that may be a reimbursable originating site. These restrictions often exclude the home as a reimbursable site posing challenges for clients and providers. As of 2017, there were 23 states with a specific list of originating sites for telehealth. Thirty-six states allowed for the home as an originating site as

of 2016.15 The current trend of relaxing limitations and restrictions on geographic and originating site requirements should facilitate greater utilization of telehealth to provide behavioral health services.

Private and Commercial Insurance Reimbursement for Telehealth

Currently, 36 states and the District of Columbia have laws related to private payer reimbursement policies for telehealth. In 2016, a total of 29 states had telehealth parity laws in place for private insurers. 16 Private insurance reimbursement for telehealth services vary by state and by payer; however, evidence supports that private insurers are increasingly including telehealth as reimbursable services.

Incentives for Telehealth Adoption

There have been several efforts to incentivize telehealth adoption, primarily supported by the federal government. In 2016, the U.S. Department of Agriculture (USDA) announced an initiative to fund 80 distance learning and telemedicine projects in 32 states. This initiative will provide \$23 million in grants to support 44 distance learning and 36 telemedicine projects. Several of the projects will be focused on addressing behavioral health issues including opioid use disorder and expanding the availability of mental health services to remote counties. In addition to this initiative, USDA Rural Development has increased access to high-speed Internet access, a critical component of successful telehealth adoption, since 2009. The USDA has invested more than \$30 billion in Internet infrastructure, resulting in 6 million rural residents and businesses gaining access to high-speed internet.17 The USDA's investment in high-speed internet and the distance learning and telemedicine project provide the necessary infrastructure and resources for clients and providers to successfully implement and use telehealth services.

In 2014, Congress passed the Excellence in Mental Health Act that established criteria for the Certified Community Behavioral Health Clinics (CCBHC) 2-year demonstration project. CCBHCs provide a comprehensive set of behavioral health services to clients and in return receive reimbursement through a prospective payment system, similar to federally qualified health centers (FQHCs). As part of the CCBHC implementation guidelines, telehealth was strongly encouraged to be adopted and implemented as a tool to provide services across the continuum of care. There are currently 67 CCBHCs operating in eight states. Preliminary data collected from these CCBHCs by the National Council for Behavioral Health (National Council) show that 72% of respondents adopted new technologies that support care delivery, including EHR upgrades, mobile apps, and telehealth. CCBHCs reported that the CCBHC certification requirements and payment model supported the organizations in adopting technology and that this would otherwise not be possible owing to low reimbursement rates.18 The CCBHC demonstration criteria encouraging adoption of telehealth as well as providing a payment mechanism to support it have been shown to increase implementation of telehealth among organizations that otherwise could not afford to do so.

Summary

It is well established that barriers exist to accessing mental health and SUD treatment services across the U.S. Increasing the utilization of telehealth among behavioral health providers could help to close the treatment gap for individuals in need of services. In an effort to better understand the utilization, challenges, and opportunities for telehealth implementation within

behavioral health settings, the National Council in partnership with the University of Michigan's Behavioral Health Workforce Research Center (BHWRC) conducted a research study to better understand: the utilization patterns and types of telehealth tools being used; barriers to using telehealth; and providers' perceptions and attitudes toward telehealth. Additionally, this report summarizes the impact that telehealth could have on access to behavioral health services in rural communities and addresses workforce shortages.

METHODS

To better understand the utilization of telehealth by behavioral health professionals, data were gathered using a mixed methods approach. Study researchers collected quantitative and qualitative data through an electronic survey tool and qualitative interviews by telephone. The Health Sciences and Behavioral Sciences Institutional Review Board at the University of Michigan found all activities of this study to be exempt.

Data Collection

An electronic survey tool was used to collect data regarding the utilization patterns of telehealth, the types of telehealth used, and challenges to using telehealth. Qualtrics, an electronic research platform, 19 was used to design an online survey consisting of 31 questions to securely collect data on the following topics:

- How organizations are using telehealth, what types of telehealth are being used, barriers to using telehealth, and provider attitudes toward telehealth;
- Who is using telehealth and whether telehealth impacts access to and quality of care for different populations; and
- How adoption of telehealth varies across geographic areas and health profession types.

National Council team members drafted the survey questions that were then reviewed and approved by several telehealth experts of the BHWRC's partner Consortium. The survey tool was designed to be completed in 20 minutes or less and comprised mostly multiple-choice responses. Prior to dissemination, the online survey was reviewed by BHWRC Consortium experts and pilot tested by 50 National Council members (primarily community behavioral health providers).

The survey tool was distributed via email to the National Council's membership list consisting of 2,900 community-based behavioral health organizations in all 50 states. Participation in the survey was voluntary and no incentives were given for participating. The survey was available online for approximately 6 weeks. Several electronic reminders were sent to encourage participation by targeted respondents including clinical directors, information technology directors, chief operating officers, and chief executive officers.

In addition, qualitative data were collected through key informant interviews to better understand themes regarding telehealth utilization and barriers to utilization. Participants were recruited by reaching out to all past and current members of the Behavioral Health Training and Technical Assistance Program for State Health Officials. The Behavioral Health Training and Technical Assistance Program is a National Council learning community

comprising state, county, and city health officials across the country. Individuals who volunteered to participate included health officials and behavioral health providers from Colorado, Maine, Montana, Nevada, and North Dakota. Interviews were conducted with one health official at the state or county level and one behavioral health provider in each state to gather information regarding workforce development initiatives, barriers to using telehealth, and the impact and outcomes of telehealth. The same interview tool was used across participants.

Data Analysis

Quantitative data generated from the survey were analyzed with SPSS software. Univariate methods and frequencies were used to analyze the data and extract the most useful information. Information collected during the qualitative interviews was recorded by two notetakers. NVivo, an electronic qualitative data analysis software tool, was used for data analysis. A thematic analysis was performed to identify common themes shared by respondents.

FINDINGS

Electronic Survey Findings

Data were available for 329 organizations, representing 50 states, the District of Columbia, and Puerto Rico. Survey participants were asked to respond to a series of multiple questions to better understand telehealth utilization patterns and barriers to use among behavioral health providers.

Survey Participant Demographics and Characteristics

Data were collected from at least one respondent in all 50 states, Puerto Rico, and the District of Columbia. Seven respondents indicated that their organizations were located in multiple states. The states with the highest number of responses were New York (n=29, 9%), California (n=18, 5%), Illinois (n=17, 5%), Michigan (n=17, 5%) and Pennsylvania (n=16, 5%). The states with the lowest number of responses included Idaho, Kentucky, North Dakota, South Dakota, Vermont, and Puerto Rico, each with one response.

Forty-one percent of survey respondents identified his or her organization as community mental health centers (n=134). The next most common type of organizations were co-located mental health and SUD treatment organizations (n=48, 15%) and FQHCs (n=39, 12%). Other types of organizations represented in the study included hospital and health systems (9%), rural health clinics (4%), ambulatory care clinics (8%), social service agencies (21%), and crisis centers (10%). Additionally, 46% of respondents reported that their organizations contract with external telehealth providers, whereas 44% reported that they do not contract with an external telehealth provider. Approximately 10% of respondents were unsure of whether their organization had an external telehealth contract in place.

More than half of the organizations were located in rural areas (n=178, 57%), and 118 (36%) were located in a designated medically underserved area (Figure 1). These two categories were not mutually exclusive. Also, the majority of respondents identified as being located in an urbanized or urban cluster area (n=225, 68%).

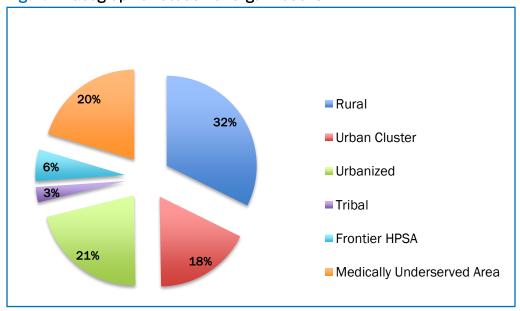
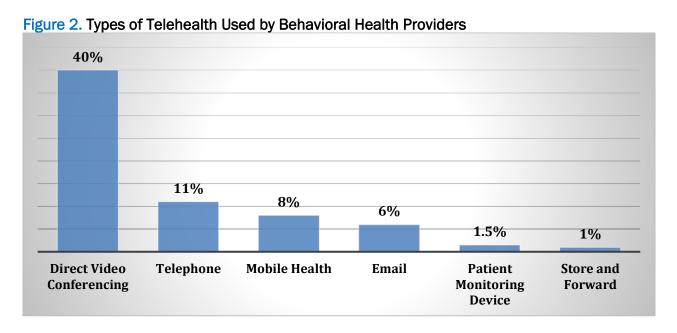


Figure 1. Geographic Location of Organizations

Utilization and Types of Telehealth Used

Nearly half of the respondents (n=153, 47%) use telehealth specifically for behavioral health services. Among the different types of telehealth being used by behavioral health providers, direct video conferencing was the most common telehealth service used (40%), followed by telephone (11%), mobile health (8%), and email (6%) (Figure 2). The least common types of telehealth used by behavioral health organization respondents included patient monitoring devices (1.5%) and store and forward (1%).



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Respondents that reported telehealth was used for behavioral health services (n=153) were asked to indicate which types of providers can use telehealth within their organizations. Figure 3 illustrates that a range of different types of professionals can use telehealth for service delivery, including psychiatrists (n=119, 78%), mental health counselors (n=51, 33%), social workers (n=37, 24%), psychologists (n=24, 16%), addiction counselors (n=18, 12%), case managers (n=16, 10%), and peer workers (n=6, 4%).

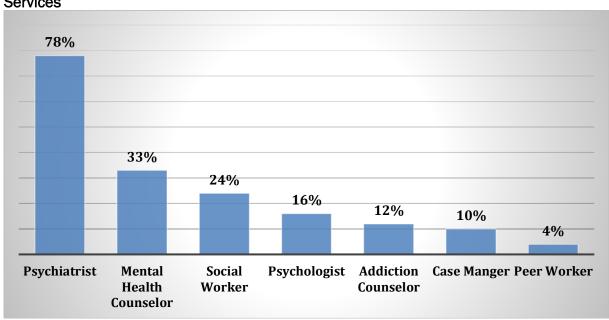


Figure 3. Reported Types of Providers that Can Use Telehealth to Deliver Behavioral Health Services

Respondents identified the types of services provided via telehealth generally (meaning inclusive of physical health and behavioral health services). The most common type of service being provided through the use of telehealth was diagnoses or treatment (n=61, 50%), followed by follow up (n=26, 21%), "other" (n=19, 15%), chronic disease management (n=9, 7%), emergency care (n=6, 5%), and administrative services (n=2, 1.6%).

Respondents also identified the types of services provided via telehealth specifically for behavioral health services, and more than half of respondents reported that their organization uses telehealth for medications management (n=83, 54%) making it the most common type of behavioral health service provided using telehealth. Individual counseling (n=25, 18%) was the second most common type of behavioral health service being provided with telehealth, followed by assessment (6%), consultations (n=8), crisis services (n=6), group counseling (n=2), clinical supervision (n=2), chronic disease management (n=2), peer specialists (n=2), individually targeted prevention services, and screening (n=1).

Despite the range of providers using and types of telehealth services being used, the majority of respondents (57%) reported that less than 10% of their patients are using telehealth, and only 6% of reported that 76–100% of patients are using telehealth in their organizations.

Primary Motivations for Implementing Telehealth

To better understand the primary motivations for implementing telehealth, respondents rated the following statements on a scale from 1 to 6. A rating of 1 indicated that this was the primary motivation for implementation, whereas as a rating of 6 was not a primary driver for implementation. The statements included:

- Improve quality of care for patients;
- · Operational efficiency and oversight;
- Reaching new patients;
- Increasing profitability/revenue;
- Providing a competitive advantage over other organizations in my region; and
- Research or academics.

Improving the quality of care was the greatest primary driver for implementation, whereas research or academics was the lowest driver for implementing telehealth (Table 2).

Table 2. Primary Motivation for Implementing Telehealth

| Reason for implementing telehealth | 1 (WAS a primary motivation) | 2 | 3 | 4 | 5 | 6 (was NOT a primary motivation) |
|-------------------------------------|---------------------------------------|----|----|----|----|---|
| Improve quality of care | 93 | 39 | 15 | 7 | 9 | 0 |
| Operational efficiency | 34 | 60 | 47 | 16 | 6 | 0 |
| Reaching new patients | 31 | 48 | 58 | 17 | 8 | 1 |
| Increasing profitability or revenue | 3 | 8 | 26 | 71 | 38 | 17 |
| Providing a competitive advantage | 2 | 7 | 14 | 35 | 89 | 16 |
| Research or academics | 0 | 1 | 3 | 17 | 13 | 129 |

Survey Respondent Attitudes and Beliefs Regarding Telehealth

On a scale ranging from "strongly agree" to "strongly disagree," respondents indicated their agreement with the following statements:

- "Telehealth is important to the success of my organization";
- "Telehealth increases my ability to see more patients";
- "Telehealth allows my organization to see patients over a greater geographic distance";
- "Telehealth allows for a more efficient workflow for seeing patients"; and
- "Telehealth fills an essential provider gap in my organization."

Only 24 respondents reported that they "strongly disagree" with any of the statements. Seven respondents reported that they "strongly disagree" with the statement "telehealth is important to the success of my organization" (Figure 4).

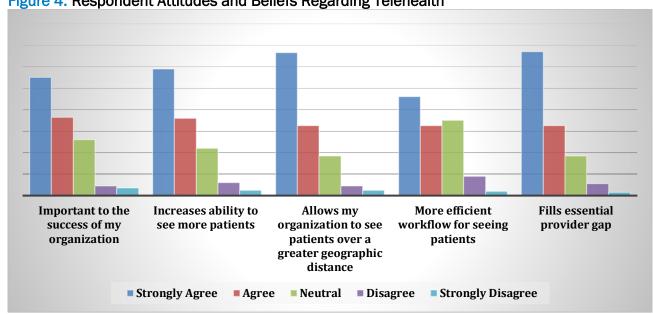


Figure 4. Respondent Attitudes and Beliefs Regarding Telehealth

Barriers to Using Telehealth

On a scale ranging from "strongly agree" to "strongly disagree," respondents indicated their agreement with statements about the barriers and challenges faced by providers when implementing telehealth. The three most frequently cited barriers were related to financing, including: lack of reimbursement (59%), cost of maintaining (56%), and cost of starting (56%). Monitoring quality (50%) and organizational support (48%) were also cited as common barriers.

Reimbursement Barriers

Eighty percent of respondents reported that their organization could receive reimbursement for telehealth services, whereas six respondents reported that their organizations could not receive reimbursement for telehealth. These six respondents represented different types of provider organizations, including FQHCs, SUD treatment centers, private practices, academic hospitals, and social service agencies. The main types of reimbursement barriers faced by respondents included: low payer rates for telehealth (32%), state law does not mandate coverage (27%), cannot reimburse (21%), and Medicare covers too few services (20%).

Qualitative Findings

In addition to the nationwide survey, ten key informant interviews were conducted with individuals in five states (Colorado, Maine, Montana, Nevada, and North Dakota). Interviewees volunteered to participate in the data collection process and received no incentive for their participation. Interviews were conducted by telephone with one health official at the county or state level and one behavioral health provider in each state. The topics of the qualitative interview included arrange of issues, but the main discussions centered around barriers to implementing telehealth.

Financial and Reimbursement Barriers

In alignment with the findings from the electronic survey, key informants also identified financing and reimbursement as the largest barrier to telehealth implementation. One interviewee stated that Medicaid reimbursement was easy, but that private insurers were not currently reimbursing for telehealth in the state. Specific cited challenges included the cost of implementing technology infrastructure to start a telehealth program and the cost of maintaining this infrastructure. Participants from Montana and Colorado noted that in rural areas the technology infrastructure (e.g., availability of a working Internet connection or proper equipment) can be a barrier to utilizing telehealth. Additionally, interviewees identified state funding cuts as potential barriers to telehealth implementation.

Leadership Barriers

Several key informants identified lack of leadership regarding telehealth as a barrier to implementation. An informant from Maine reported that there was a lack of individuals in leadership positions that had the capacity and capability of implementing telehealth. Another informant reported that a lack of leadership within the state's legislature regarding telehealth was delaying necessary political action to more easily access and implement telehealth services.

Workforce and Staffing Challenges

In addition to challenges involving organizational leadership, key informants identified challenges related to workforce and staffing. One informant reported that because of a lack of staff it was "difficult to talk about expansion of telehealth to behavioral health right now because we can't even get [a patient] an in-person appointment." This issue was shared by other informants who commented on the existing waitlists and wait times for appointments and the fact that these staffing issues are taking precedent over implementing telehealth. A respondent from North Dakota reported that there are currently no licensed addiction counselors in one county that would meet telehealth regulations. Additionally, one informant identified integrating telehealth into clinicians' workflows as a workforce and staffing challenge.

Client-Related Barriers

Several of the interviewees identified challenges clients face when attempting to receive telehealth services. The primary challenge identified was a lack of technology and resources. Additionally, challenges that act as barriers to accessing care traditionally also impact access of telehealth, including a lack of transportation (to begin a provider-patient relationship) and a lack of health insurance coverage. One key informant emphasized the need for telehealth to be compatible with mobile phones because many individuals do not have access to personal or laptop computers.

Training and Technical Assistance Barriers

An additional theme regarding barriers was a lack of familiarity or comfort using telehealth as an intervention. This finding also supported survey data that showed 75% (n=247) of survey respondents were not aware of any programs to support telehealth uptake and education. Interviewees identified a need for workforce trainings for providers. One provider commented that, "Providers realize the benefit of telehealth, but some are resistant as it takes away from provider–client interactions. More training is needed on the benefit of telehealth and how to effectively use technologies." Additionally, training on confidentiality and privacy concerns was

identified as a specific need. A provider in Montana noted that the use of Project Extension for Community Healthcare Outcomes (ECHO) as a distance learning provider education model was helpful within their organization. This recommendation is discussed in greater detail in the Discussion section below.

Regulatory and Compliance-Related Barriers

Interviewees identified regulatory and compliance issues as a barrier to telehealth implementation. Interviewees' comments pertained to both understanding complex and often-changing regulations as well as the content of the regulations themselves. One interviewee commented on the fact that state guidance is often vague and it is difficult to interpret rules. A specific regulatory mandate that was identified as a barrier is the requirement that individuals have a face-to-face evaluation prior to receiving telehealth services. A respondent from Colorado reported that the current state regulations require a face-to-face evaluation and that initial contact with a patient should happen in person prior to the engagement of telehealth. Clients face numerous barriers to accessing that initial appointment, including a lack of transportation and resources, and long waitlists for appointments. Licensure requirements were identified as another regulatory challenge for organizations. One informant from North Dakota reported that cumbersome licensing requirements have resulted in a lack of licensed addiction counselors in the state.

Even though key informants identified several barriers to telehealth implementation, every provider interviewee was interested in furthering the uptake of telehealth at his or her organization, and saw it as a promising practice to reach rural and underserved clients.

Recommendations for Successful Telehealth Implementation

In addition to discussing barriers, key informants provided information on what is working well regarding telehealth implementation as well as recommendations for other organizations to facilitate successful telehealth implementation. These included issues regarding regulations and training.

Financing and Support for Infrastructure Development

Successful adoption of telehealth depends on clients and provider organizations having the adequate infrastructure to support telehealth technologies. Access to high-speed Internet is critical to facilitate effective use of telehealth. Federal investments like the USDA's support of high-speed Internet in rural areas should continue to be made to ensure that all individuals have adequate Internet access.

Regulatory and Compliance Matters

Regulations, especially those involving licensure and establishing a provider-patient relationship in person prior to utilizing telehealth, have been identified as barriers from survey participants and key informants. Regulations are not only complex, but often vary by state. Some states have enacted policies that facilitate easier access and use of telehealth services that can be adopted by other states. A respondent reported that the state of Montana recently enacted legislation that allows "site of origin" for a client to be defined as home, business, or other locations outside of a clinic. This policy change is expected to help overcome distance barriers. Additionally, clients can initiative a provider-patient treatment relationship in person or through video chat and then proceed with telehealth sessions using audio only. These

changes could increase the number of individuals who can access services that otherwise lack the resources or transportation to get to an initial face-to-face appointment.

Training and Technical Assistance

Training was identified as a main barrier by key informants; however, interviewees also provided recommendations regarding training and technical assistance. One respondent from Colorado reported that participating in Project ECHO at the University of New Mexico has been helpful for telehealth implementation. Project ECHO is a collaborative model that trains the healthcare workforce through virtual meetings, webinars, and information sharing and provides remote consulting for clinicians. It focuses on complex conditions management including behavioral health disorders and aims to address the challenges associated with accessing treatment in rural and underserved areas.₂₀ Another respondent reported that training from the Addiction Technology Transfer Center Network₂₁ on mobile applications was helpful to better understand the technology.

The information gathered through the electronic survey and key informant interviews provided additional insight on the utilization, challenges, and opportunities experienced with telehealth within behavioral health settings. Our findings are supported by the existing literature as well as reflect the variation that exists in telehealth implementation across the country. The implications of our findings are explained in the Discussion section below.

Study Limitations

This study's findings are limited in their generalizability due to a limited sample size. Although our sample included representation from each of the 50 states, some states were more represented than others. The electronic survey sample was over-represented by more populous states whereas the interviewee sample was over-represented by individuals in rural states. Because of the wide variation in state-based healthcare financing, laws, and regulations, individual state-based findings might not be applicable to other states. This study lacked the resources to provide incentives for participation and our sample for qualitative interviews was limited to five states.

DISCUSSION

Quantitative and qualitative findings from the electronic survey and key informant interviews highlight the utility and value of telehealth within behavioral health settings as well as the barriers that impede widespread adoption. Study data are supported by existing literature that shows adoption of telehealth by behavioral health organizations has been slower than for physical health providers; adoption varies by state; and financing and reimbursement and regulations are a major barrier to adoption and implementation.

Financing and Reimbursement

Like most types of health care, navigating the financing and reimbursement landscape of telehealth is a complex task that involves analyzing public and private payer policies on the local, state, and federal levels. Barriers related to financing included the costs of infrastructure and maintenance for technology. Barriers related to reimbursement involved both whether telehealth was a reimbursable service at all and inadequacies regarding the reimbursement amount for the service. Our data revealed that reimbursement through Medicaid was reported by study participants as being more common than reimbursement mechanisms through private insurers. Medicare and other federal payer sources were not

discussed in detail during the data collection efforts; however, Medicare's reimbursement for telehealth is restricted to rural areas limiting provider participation. Recommendations to address financing and reimbursement challenges include:

- Ensuring necessary infrastructure is developed and supported through federal investments such as the USDA Rural Development investments.
- Ensuring telehealth is part of a state's Medicaid plan (48 states currently reimburse for some telehealth services).10
- Increasing the number of telehealth services that are reimbursed by Medicaid.
- Ensuring telehealth services are included in private payer contracts.
- Providing adequate training and resources to staff on appropriate coding, billing, and documentation processes for telehealth.
- Expanding Medicare reimbursement for telehealth beyond rural areas; expanding it to all Medicare enrollees.

Innovative and Alternative Payment Models

To motivate organizations to adopt telehealth services, payers and policymakers should continue to include criteria for telehealth adoption within demonstration projects. Though adoption of telehealth services was not mandated for CCBHC demonstrations, it was encouraged and the CCBHC payment model supported telehealth adoption in a way that typical fee for service reimbursement models do not. This resulted in a high adoption rate of telehealth among CCBHCs. As payment models continue to shift away from fee for service toward value-based payment models, including the appropriate funding and flexibility of funding to support telehealth could lead to increased adoption and implementation by behavioral health organizations supporting their ability to meet performance measures and outcomes.

Workforce Development

Another identified barrier to telehealth adoption among behavioral health providers was a need for workforce development and provider training. The existing provider gap in behavioral health impacts the prioritization and implementation of telehealth and new technologies. As one key informant described, their organization is focused on addressing the current needs and long waitlists of clients for face-to-face appointments taking time away from being able to develop the infrastructure needed for telehealth. Recommendations to address workforce development challenges include:

- Increasing community behavioral health organization reimbursement to achieve parity with primary care and FQHCs.
- Supporting training and education programs for behavioral health professions.

Training

Training and technical assistance needs were identified throughout the data collection as a barrier to successful telehealth adoption. Additionally, workforce training initiatives are either scarce, or not being utilized to their full capacity, as many survey respondents were unaware of such initiatives. The following recommendations could alleviate these barriers and support the increased uptake of telehealth for behavioral health services:

 Support educational initiatives for providers, healthcare administrators, and health officials to enhance knowledge around telehealth rules, regulations, and best practices.

- Telehealth Resource Centers₂₂ provide valuable educational materials to providers and administrators and should be continually supported to enhance knowledge about telehealth.
- Support education initiatives for providers and healthcare administrators to enhance knowledge around grants that fund the uptake of behavioral health information technologies including health information exchanges, mobile technologies, and telehealth tools.
 - The Health Resources and Services Administration supports telehealth through the Office of Rural Health Policy and the subsequent Office for the Advancement of Telehealth (OAT).23 The OAT provides critical grant programs for rural organizations looking to implement telehealth.

Regulations and Compliance

Behavioral health providers often view compliance regulations as mechanisms that enhance and enable telehealth adoption as well as barriers to implementation. States vary with regard to their adoption of regulations that facilitate uptake of telehealth. For example, Montana has expanded its requirements of "site of origin" to include a client's home and other locations increasing access to telehealth services. The following recommendations could help to ease regulatory barriers to telehealth adoption:

- Alleviate cross state licensing barriers by encouraging states to adopt a standardized definition of telehealth and telehealth eligible providers, as well as defining the "place of service" from the originating site to the distance site.
- Ease state-based licensing requirements by state participation in the Interstate Medical Licensure compact for physicians and interstate licensing compacts for other professionals such as nurses.
- Alleviate state-based licensing requirements by encouraging states to participate in licensing reciprocity agreements with other states.
- Address client resource and transportation needs by allowing for telehealth services to begin without a face-to-face interaction but through a video evaluation.
- Modify DEA registration regulations to ease burden on prescribers who practice in more than one state.

If implemented by policymakers, these recommendations could lead to increased access to and implementation of telehealth services addressing the needs of millions of individuals who have mental illness or SUD and have not accessed services.

CONCLUSIONS

Telehealth is widely considered to be a promising practice to reach underserved populations and rural communities; however, significant barriers exist challenging telehealth's widespread adoption. Despite these barriers, study respondents overwhelmingly agreed that telehealth is important to the success of an organization; important for reaching more patients; allows organizations to see patients over a greater geographic distance; allows for a more efficient workflow; and fills an essential provider gap in organizations. Study data and existing literature support that by overcoming financing and reimbursement challenges, regulatory and compliance challenges, and training challenges, telehealth can be more easily accessed and implemented.

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