SAMHSA ADVISORY

Substance Abuse and Mental Health
Services Administration

USING TECHNOLOGY-BASED THERAPEUTIC TOOLS IN BEHAVIORAL HEALTH SERVICES

Introduction

For decades, providers have recognized the promise of telemedicine for connecting patients outside the medical office to their clinical team members (Lustig, 2012). Telehealth benefits both clients and providers. For clients, especially those in rural areas who live far from their provider, telehealth increases access to care and reduces the client's travel time (Avey & Hobbs, 2013; Beattie et al., 2009; Uscher-Pines et al., 2020). For clients who have mobility issues, telehealth is a way to receive regular, consistent care in their homes (Choi et al., 2014). For providers, telehealth can make visits more efficient, allowing them to see more patients in a shorter period of time and reducing costs associated with in-person care (Avey & Hobbs, 2013; Boggs et al., 2014). Providers identify other important benefits of telehealth as well, including incorporating therapy into the client's daily life and being able to gain insight into the client's living conditions (van der Vaart et al., 2014).

> **What is telemedicine?**
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> "Telemedicine seeks to improve a patient's health by permitting two-way, real time interactive communication between the patient, and the physician or practitioner at a distant site. This electronic communication means the use of interactive telecommunications equipment that includes, at a minimum, audio [and/or] video equipment." (Substance Abuse and Mental Health Services Administration, 2020)
>
> **What is telehealth?**
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> Telehealth includes telemedicine, but also includes other forms of telecommunication including text, messaging, or email communication, or "store and forward" transfer of patient data to providers for review at a later time (New England Journal of Medicine Catalyst, 2018).

To engage in telehealth, both the provider and the client need access to a device (i.e., a computer, tablet, or smartphone) and reliable access to the Internet (cellular or broadband). As of 2019, most Americans reported owning some type of cell phone, a desktop, or a laptop (see Exhibit 1, Pew Research Center, 2019). However, even though many have access to a suitable device, individuals may confront specific challenges limiting their ability to use telehealth. For example, the age, usability, and functionality of clients' devices may limit their ability to be used for telehealth appointments. Additionally, clients may share devices with others in their home, limiting the types of information they would want to store or share through the device. For providers, some clinics struggle to have enough laptops to support staff working from home or outside of typical shared office space (Shelton et al., 2020).

Fast, stable Internet continues to be a challenge for many Americans, especially those in rural areas (Shelton et al., 2020; Tuerk et al., 2010; Turgoose et al., 2018). Access to high speed, broadband Internet is an additional concern, with 58 percent of rural Americans reporting that there is an access problem in their area (Anderson, 2018). People in low-income households also have lower rates of Internet access. For adults in households with incomes of less than $30,000 per year, 29 percent do not own a smartphone, 44 percent do not have broadband services, and 46 percent do not have a computer (Anderson & Kumar, 2019). Black and Latino/Latina respondents are more likely to report not using the Internet compared to White respondents (15 percent for Black; 14 percent for Latino/Latina; 8 percent for White) (Anderson et al., 2019). Lack of Internet access can lead to technical difficulties, including low image resolution, audio delays, or other glitches in communication, which can disrupt the regular flow of conversation between the provider and client (Choi et al., 2014; Morland et al., 2014).

Exhibit 1: Technology ownership in the United States, 2019 (Pew Research Center, 2019)
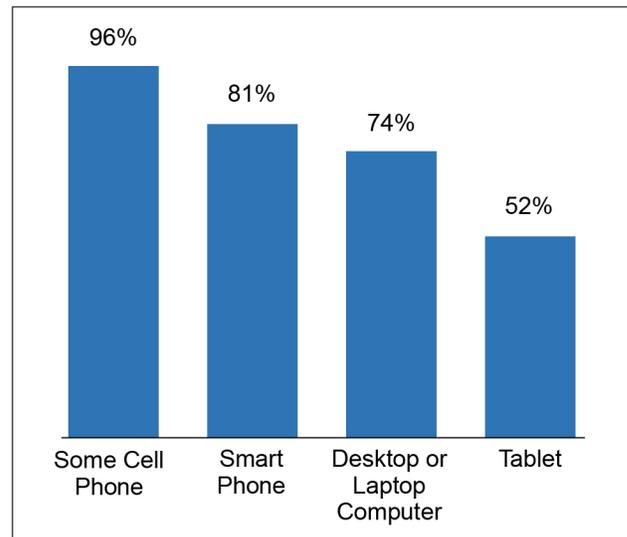
Key Messages

- Telehealth, including synchronous (e.g., video conferencing) or asynchronous (e.g., mobile apps, texting, or messaging providers) modalities, is commonly used and accepted in the behavioral health field.

- Synchronous telehealth using video conferencing enables providers to deliver behavioral therapies (e.g., cognitive behavioral therapy, psychoanalytic therapy) in a similar way as in an office setting.

- Asynchronous telehealth can be an important tool complementing synchronous care and in providing ongoing care and may include reminders, diaries, and less urgent communication.

- Telehealth regulations and reimbursement requirements are frequently changing. Providers and program administrators need to check national and state regulations and insurers' (public and private) reimbursement policies for telehealth before implementing telehealth technology. Two good starting points are the Center for Connected Health Policy's map of telehealth-related laws and regulations and the American Medical Association's *Telehealth Quick Guide*.

- Providers should address privacy concerns by ensuring thorough informed consent, using HIPAA-compliant technology, and explaining who will have access to data.

- Providers should also ensure access to devices, software, and Internet for both provider and patient. Training and test-runs can reduce any technology anxiety.

Benefits of Using Telehealth Technologies in Behavioral Health

The use of technology in screening for and assessing clients' behavioral health needs allows for the efficient, standardized, and cost-effective collection of clinically relevant client information in diverse settings. By not having to enter a medical office, telehealth can expand access to health care for people who feel stigmatized seeking treatment (Hogan et al., 2019; Whaibeh et al., 2019). Telehealth approaches may also fill a treatment gap for those who cannot access care easily in their local communities, such as:

- Individuals in rural or remote settings
- People who are unable to commute to their providers' offices due to distance
- People who need a particular provider type or service that is not available in their area

By offering telehealth options to clients, clinicians may:

- Increase their availability for clients with complex challenges
- Focus more of their time on the delivery of services that require their clinical expertise and interaction with clients
- Enable clients to review repetitive but clinically important content, such as psychoeducational material, without having to devote extensive time to such activities themselves

Telehealth also allows primary care providers the opportunity to consult with specialists (e.g., psychiatrists) to expand access to specialized mental health services.

Behavioral Health Technologies

Telehealth technologies are discussed in terms of *synchronous*, meaning happening at the same time (i.e., a therapeutic session happening over video), versus *asynchronous*, meaning happening at different times (i.e., sending messages back and forth using the electronic health record portal).

Synchronous

Synchronous tools for telemedicine allow for direct provider-to-client communication. While using telehealth, providers offer behavioral health care in ways similar to how they would in person. For example, instead of sitting in the same room, the provider and client are connected through an electronic device. Ideally, providers and clients are connected through a web camera using a HIPAA-compliant video communication service (Severino, 2020). See Exhibit 2 for information about HIPAA-compliant video communication services and suggestions for using the telephone. Synchronous methods are some of the most common forms of telehealth, and are effective for providing psychotherapy and other forms of counseling (Varker et al., 2019).

Exhibit 2: HIPAA-Compliant Video Communication Services (Severino, 2020)

Skype for Business/Microsoft Teams, Updox, VSee, Zoom for Healthcare, Doxy.me, Google G Suite Hangouts/Meet, Cisco Webex Meetings/Webex Teams, Amazon Chime, GoToMeeting, Spruce Health Care Messenger

Using the Telephone in Telemedicine

If challenges connecting via the Internet exist, using the telephone is an effective strategy for synchronous teletherapy (Brenes et al., 2011). Previous studies show low attrition and high satisfaction while using the telephone for psychotherapy (Brenes et al., 2012; Tutty et al., 2005).

Asynchronous

Asynchronous telehealth supports prevention, screening, treatment, recovery, and continuing care through three categories of communication:

mHealth (also called mobile health) – uses mobile apps or other computer programs to support behavioral health. mHealth includes a variety of supports, including medication reminders or treatment support diaries. Examples include:

- A multi-modal, smartphone-delivered intervention, including daily self-assessments and self-management content that are tracked on a digital dashboard and supported by weekly calls from a support specialist for people with serious mental illness (Ben-Zeev et al., 2018).
- Mobile technology to support psychoeducation for bipolar disorder through an app-based interactive intervention connecting mood states with tailored mitigation strategies (Depp et al., 2015).
- Medication reminders for treating opioid use disorder (Nuamah et al., 2020).

Remote patient monitoring – uses digital technology to collect medical or other health data and transmit it to the medical provider. Examples include:

- Activity trackers used to track and transmit frequency and duration of daily activities to support overall physical and mental health (Naslund et al., 2016).
- Using short assessments (called "ecological momentary assessments") to assess momentary experiences in real time and in the participant's natural environment. Information is relayed to the provider to provide important contextual information, or linked to an mHealth intervention (Bell et al., 2017).
- Medication ("pillbox") dispensing and monitoring buprenorphine and naloxone for opioid use disorder treatment (Schuman-Olivier et al., 2018).

Messaging – uses email, chats, mailing lists, or electronic health record portals to communicate between the client and the provider, allowing non-urgent messages to be shared and received. Examples include:

- Using text messages to communicate with a care manager to support perinatal depression in a rural obstetric clinic (Bhat et al., 2018).

Combining synchronous with asynchronous

Combining synchronous and asynchronous methods can further extend the capability of telehealth. For example, while engaging in virtual and in-person cognitive behavioral therapy, treatment may include synchronous talk therapy as well as asynchronous therapeutic diaries. Medication reminders are a common form of asynchronous telehealth, which can be combined with a variety of forms of synchronous teletherapy.

Many clients prefer a combined in-person and virtual approach to treatment, where they receive some services virtually and others face-to-face. Clients may also shift preferences over time, and transition between using in-person and virtual treatment.

Implementation Considerations

National and State Regulations

Before starting a telehealth program, providers must consider regulatory issues, such as prescribing laws, licensing, and reimbursement policies. Many of these regulations vary by state; providers should consult state guidelines. Some available resources include:

● The American Medical Association developed a guide of resources on licensure and payment policies to assist providers in implementing telehealth programs (American Medical Association, 2019).[1]

● The Center for Connected Health Policy developed a map of telehealth-related laws, regulations and reimbursement policies for all 50 states and the District of Columbia (Center for Connected Health Policy, 2020).

Licensure Regulations

Most state medical boards require physicians to be licensed in the state where the patient is located, which creates a significant barrier to widespread implementation of telehealth. To practice telehealth, some states issue a special purpose license, telemedicine license, or license to practice medicine across state lines (Federation of State Medical Boards, 2020). These additional requirements for out-of-state providers to deliver telehealth are significant barriers to telehealth adoption (Adler-Milstein et al., 2014). The Federation of State Medical Boards maintains an updated list of changes to licensure requirements (Federation of State Medical Boards, 2020).

Reimbursement

When services are not provided in-person, program administrators, providers, and clients must ensure that insurance will reimburse for telehealth. Different public and private payers have different reimbursement policies, which have been changing with the increased need and use of telehealth.

Medicaid

Telehealth-specific delivery methods or criteria for implementation are not specified in federal Medicaid law and regulations, leaving flexibility to states to design programs (Lynch, 2020). While programs vary, all 50 states and Washington, D.C. have some form of Medicaid reimbursement for telehealth. Live video is reimbursed in all states; however, as of 2020, asynchronous modalities are only defined and reimbursed by 16 state Medicaid programs. Treatment programs should review their state's regulations before introducing a telehealth program.

Medicare

Medicare reimburses for limited telehealth services when certain parameters are met. There are limits on the type of professional who can provide services, and services must be delivered via live video. Medicare also imposes limits based on the patient's location relative to certain facilities and their geographic location. Only telehealth delivered to patients located in Health Professional Shortage Areas (HPSA) or in a county that is outside any Metropolitan Statistical Area (MSA) are eligible for reimbursement. The Health Resources and Services Administration (HRSA) maintains a resource for individuals to determine if a location is eligible for Medicare telehealth reimbursement.

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1   During the COVID-19 public health emergency, the U.S. Department of Health and Human Services has provided flexibility with regard to some regulations, allowing providers to serve patients through telehealth more easily. More information about these temporary measures can be found in Telehealth: Delivering Care Safely During COVID-19.

Private Payer

In 2020, laws that regulate private payer telehealth reimbursement policies exist in 42 states and Washington, D.C. (Center for Connected Health Policy, 2020). Providers in states that require private payers to reimburse equivalently for telehealth services and face-to-face services adopt telehealth at higher rates than states with different reimbursement rates (Adler-Milstein et al., 2014).

Informed Consent

Informing the client about their rights, including who has access to the information shared over the Internet, is essential to establishing a telehealth program. The verbal or written informed consent should be easy to understand and in a client's native language (Watzlaf et al., 2017). It should include a discussion of (Watzlaf et al., 2017):

1. Potential risks to privacy
2. Availability of audio/video muting
3. Importance of a secure physical environment for both the provider and the client
4. Understanding of data ownership, storage, and security, including who may have access to the data

The consent process should also identify the physical location of the client at the time the service is delivered to adhere to licensure and reimbursement requirements. The Agency for Healthcare Research and Quality (AHRQ) has developed a sample telehealth consent form for adaptation.

Privacy & HIPAA Compliance

Privacy and security concerns are a significant challenge to adopting telehealth. Clients and providers must trust that information will be secure (Hall & McGraw, 2014). Most clients access telehealth services in their homes, but the presence of other family members or caregivers may lead to a lack of privacy (Choi et al., 2014). Engaging in telehealth in homes or other personal spaces may also result in interruptions during the visit, which can impact therapeutic engagement (Beattie et al., 2009).

Similarly, providers face concerns with lack of space and privacy while providing services from their homes (Shelton et al., 2020). Breaches of confidentiality or loss of privacy could negatively impact the client-provider relationship, client treatment adherence and compliance, and treatment effectiveness (Choi et al., 2014; Luxton et al., 2010). Providers should consider implementing strategies to reduce the risks of breaching confidentiality (Watzlaf et al., 2017), including:

- Engaging in training to understand privacy and confidentiality risks and mitigate breaches
- Completing a telehealth privacy and security self-assessment (Zhou et al., 2019)
- Using secure devices to communicate with clients or store client data, with encryption and two-factor authentication (Watzlaf et al., 2017)
- Using a HIPAA-compliant platform to deliver telehealth services (Severino, 2020)

To help navigate these issues, the Telehealth Research Centers developed a stepwise guide to HIPAA compliance (Telehealth Resource Centers, 2020).

Technology Capacity

Access and Healthcare Disparities

Telehealth modalities have many benefits for providers and clients. However, access and ability to use telehealth is limited to people with access to a smartphone or other connected device. Older adults, people in rural areas, people with low incomes, and people with disabilities are disproportionately disenfranchised from the benefits of telehealth.

> **Who Doesn't Use the Internet?**
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> As of 2019, approximately 10 percent of Americans did not have access to the Internet. People who don't use the Internet tend to be Black or Latino/Latina, over the age of 65, with less than high school education, making less than $30,000 per year, or living in rural areas (Anderson et al., 2019).

Approximately 33 percent of Americans in rural areas lack access to high speed Internet required for video-based telehealth visits (Federal Communications Commission, 2019). In addition, Americans living in rural areas tend to be older, poorer, more reliant on public insurance, and have worse health outcomes than urban and suburban Americans (Meit et al., 2014; Moy et al., 2017), so their limited telehealth capacity may only exacerbate health disparities. Furthermore, people with disabilities are 20 percent less likely to own a computer, smartphone, or tablet than people without disabilities (Anderson & Perrin, 2017). Even with the expansion of telehealth services, numerous barriers remain for people with disabilities to engage fully, including technology access and infrastructure limitations, communication and operational challenges, and regulatory and legislative issues (Annaswamy et al., 2020).

Lack of access to technology and high speed Internet inhibits the use of telehealth by populations who could most benefit. Digital literacy and general health literacy are barriers for some clients, and some providers also report concerns about their own digital literacy to implement telehealth programs (Scott Kruse et al., 2018). People with lower digital literacy tend to be over the age of 50 and living in lower income households and with lower levels of education (Horrigan, 2016). Combined, lack of access to technology and low digital literacy disproportionately impact those with high health needs.

Training and Technical Support for Staff and Patients

While access to technology is a significant barrier, comfort in using technology is an additional challenge. Both clients and providers must be able to overcome technical issues that occur. While existing video conferencing programs are designed to be easy to use, lack of comfort with technology is a chief concern when considering telehealth (Bujnowska-Fedak & Grata-Borkowska, 2015; Ross et al., 2015; Sanders et al., 2012). In addition, practices or agencies that plan to implement telehealth must purchase appropriate technology (e.g., laptops, tablets, webcams) and retain IT support (Mohr et al., 2013).

For providers, additional training and support can decrease discomfort around privacy and technological issues (Avey & Hobbs, 2013). Training could include topics ranging from defining telehealth and telehealth etiquette, regulations and reimbursement, HIPAA and privacy concerns, ethical practice, and efficacy (Rutledge et al., 2017).

For clients, scheduling a pre-session trial of the software is effective to reduce anxiety and manage minor issues (Avey & Hobbs, 2013). The pre-session trial could demonstrate how to use the program, provide tips about how to use the device to interface with the program (e.g., how to effectively "tap" to press start or stop), how to use the camera, how to record or view recordings, or how to upload and delete files (Williams et al., 2015). Providers can assure clients that they do not need to continue with telehealth if they dislike it, but should encourage a trial period.

Resources

- **Substance Abuse and Mental Health Services Administration (SAMHSA)**
  - TIP 60, Using Technology-Based Therapeutic Tools in Behavioral Health Services
  - CCBHCs Using Telehealth or Telemedicine

- **Agency for Healthcare Research and Quality (AHRQ)**
  - Easy-to-Understand Telehealth Consent Form

- **Center for Connected Health Policy**
  - About Telehealth
  - Remote Patient Monitoring (RPM)

- **Centers for Disease Control and Prevention (CDC)**
  - Telehealth Interventions to Improve Chronic Disease
  - Using Telehealth Services to Expand Access to Essential Health Services During the COVID-19 Pandemic

- **Department of Health and Human Services (HHS)**
  - Telehealth: Delivering Care Safely During COVID-19

- **Health Resources & Services Administration (HRSA)**
  - Telehealth Programs

- **The National Consortium of Telehealth Resource Centers**

- **National Institute on Alcohol Abuse and Alcoholism (NIAAA)**
  - e-HealthTechnology and What it Means for the Alcohol Field

- **Rural Health Information Hub**
  - Telehealth Application Domains

- **Texas A&M Telebehavioral Care**
  - What is Telebehavioral Care?

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