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USING TECHNOLOGY-BASED THERAPEUTIC TOOLS IN BEHAVIORAL HEALTH SCIENCES

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This distance learning course was developed for CEU Matrix by Diane Sherman, Ph.D. It is based on information found in the manual *Using Technology-Based Therapeutic Tools in Behavioral Health Sciences, TIP 60)* from the Substance Abuse and Mental Health Services Administration of the U.S. Department of Health and Human Services. This manual is DHHS publication No. (SMA) 15-4924 and can be obtained free of charge from the DHHS.

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USING TECHNOLOGY-BASED THERAPEUTIC TOOLS IN BEHAVIORAL HEALTH SERVICES

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  Part 2: *An Implementation Guide for Behavioral Health Program Administrators*
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- Ways to integrate technology into existing services.
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- Electronic health records.

Part 1, Chapter 2 consists of vignettes that demonstrate the application of TAC in behavioral health services. Designed for maximum latitude of use by supervisors and front-line professionals, the guidelines for TAC appear in the form of master clinician notes, how-to notes, and other teaching tools that demonstrate how a given technology can be applied clinically, how to identify potential pitfalls, and how to manage problems that might arise.

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A TREATMENT IMPROVEMENT PROTOCOL

Using Technology-Based Therapeutic Tools in Behavioral Health Services

TIP 60

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A TREATMENT IMPROVEMENT PROTOCOL

Using Technology-Based Therapeutic Tools in Behavioral Health Services

TIP 60

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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Center for Substance Abuse Treatment

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Disclaimer

The opinions expressed herein are the views of the consensus panel members and do not necessarily reflect the official position of SAMHSA or HHS. No official support of or endorsement by SAMHSA or HHS for these opinions or for the instruments or resources described is intended or should be inferred. The guidelines presented should not be considered substitutes for individualized client care and treatment decisions.

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Note: The information given indicates each participant's affiliation as of 2011, when the panel was convened, and may no longer reflect the individual's current affiliation.

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What Is a TIP?

Treatment Improvement Protocols (TIPs) are developed by the Substance Abuse and Mental Health Services Administration (SAMHSA) within the U.S. Department of Health and Human Services (HHS). Each TIP involves the development of topic-specific best-practice guidelines for the prevention and treatment of substance use and mental disorders. TIPs draw on the experience and knowledge of clinical, research, and administrative experts in various forms of treatment and prevention. TIPs are distributed to facilities and individuals across the country. Published TIPs can be accessed via the Internet at http://store.samhsa.gov.

Although each consensus-based TIP strives to include an evidence base for the practices it recommends, SAMHSA recognizes that behavioral health is continually evolving, and research frequently lags behind the innovations pioneered in the field. A major goal of each TIP is to convey "front-line" information quickly but responsibly. If research supports a particular approach, citations are provided. When no citation is provided, the information is based on the collective clinical knowledge and experience of the consensus panel.

Foreword

The Substance Abuse and Mental Health Services Administration (SAMHSA) is the agency within the U.S. Department of Health and Human Services that leads public health efforts to advance the behavioral health of the nation. SAMHSA's mission is to reduce the impact of substance abuse and mental illness on America's communities.

The Treatment Improvement Protocol (TIP) series fulfills SAMHSA's mission by providing evidence-based and best practice guidance to clinicians, program administrators, and payers. TIPs are the result of careful consideration of all relevant clinical and health services research findings, demonstration experience, and implementation requirements. A panel of nonfederal clinical researchers, clinicians, program administrators, and patient advocates debates and discusses their particular area of expertise until they reach a consensus on best practices. Field reviewers then review and critique this panel's work.

The talent, dedication, and hard work that TIP panelists and reviewers bring to this highly participatory process have helped bridge the gap between the promise of research and the needs of practicing clinicians and administrators to serve, in the most scientifically sound and effective ways, people in need of behavioral health services. We are grateful to all who have joined with us to contribute to advances in the behavioral health field.

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How This TIP Is Organized

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Terminology

The following terms are broad in scope and denote concepts frequently referenced throughout the TIP. Detailed definitions of terms describing specific types of technology appear throughout Part 1, Chapter 1, and are summarized in Exhibit 2.2-1.

Behavioral health. Throughout the TIP, the term "behavioral health" appears. Behavioral health refers to a state of mental/emotional being and/or choices and actions that affect wellness. Behavioral health problems include substance use disorders, serious psychological distress, suicidality, and mental illness. This includes a range of problems from unhealthy stress to diagnosable and treatable diseases like serious mental illness and substance use disorders, which are often chronic in nature but from which people can and do recover. The term is also used in this TIP to describe the service systems encompassing the promotion of emotional health, the prevention of mental and substance use disorders, substance use and related problems, treatments and services for mental and substance use disorders, and recovery support. Because behavioral health conditions, taken together, are the leading causes of disability burden in North America, efforts to improve their prevention and treatment will benefit society as a whole. Efforts to reduce the impact of mental and substance use disorders on America's communities, such as those described in this TIP, will help achieve nationwide improvements in health.

Electronic media. This term is used in the broadest sense, covering everything from technology-based therapeutic tools to the use of social media for treatment or prevention.

Prevention. Technology can be used in prevention activities to foster the SAMHSA mission, which is "to reduce the impact of substance abuse and mental illness on America's communities" (SAMHSA, 2014b, p. 4). The term "prevention" covers a broad set of services, interventions, and supportive activities that promote resilience.

Recovery. This term reflects a process of change through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential (SAMHSA, 2012). Major dimensions that support a life in recovery, as defined by SAMHSA (2012), include:

- ***Health:*** overcoming or managing one's disease(s) or symptoms as well as making healthy, well-informed choices that facilitate physical and emotional well-being.
- ***Home:*** having a safe, stable place to live.

- ***Purpose:*** engaging in meaningful daily activities, such as a job, education, volunteer work, caring for family members, or creative pursuits; having sufficient independence, income, and resources to participate in society.
- ***Community:*** maintaining relationships and social networks that provide support, friendship, love, and hope.

Substance use disorders. Throughout the TIP, this term applies to substance use disorders of all varieties and levels of severity. Usage reflects current terminology as described in the *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition (DSM-5; American Psychiatric Association, 2013). In general, the distinction between substance abuse and substance dependence in prior DSM editions related to the requirement of tolerance to or withdrawal from alcohol or other substances as a diagnostic criterion for substance dependence but not for substance abuse. If a particular drug (e.g., cocaine, amphetamines, marijuana) did not typically produce clear signs of tolerance or dependence, a diagnosis of substance dependence still indicated high severity or intense compulsivity, whereas a diagnosis of substance abuse denoted less severe symptoms (e.g., continued use despite negative consequences and/or knowledge of detrimental social and health effects of use). The distinction between "abuse" and "dependence" thus carried a connotation of severity, which is now a codified part of the diagnosis of substance use disorder in DSM-5.

Technology-assisted care. This term and its abbreviation, TAC, are used throughout the TIP to refer to the broad range of interventions and enhancements to traditional care models possible through the use of technological tools and to the range of behavioral health service delivery settings within which technology can contribute to care delivery.

Part 1: A Practical Guide for the Provision of Behavioral Health Services

Part 1, Chapter 1

IN THIS CHAPTER

- Introduction
- The Potential Utility of Technology-Based Therapeutic Tools
- An Overview of Behavioral Health Technologies
- Emerging Technologies and Future Opportunities
- Integrating Technology Into Existing Services
- Legal and Ethical Issues to Consider
- Electronic Health Records
- Concluding Comments

Introduction

Digital media and resources, such as email, smartphone/tablet applications (apps), online forums, Web sites, DVDs, CD-ROMs, blogs, computer software, online social networks, telephone and televideo communication, and mobile devices are becoming universal in our culture. The use of electronic media and information technologies in behavioral health treatment, recovery support, and prevention programs is rapidly gaining acceptance. Technology-based assessments and interventions are important therapeutic tools that clinicians can integrate into their work with clients. Additionally, technology allows alternative models of care to be offered to clients with specific needs that limit their ability to participate or interest in participating in more conventional interventions targeting behavioral health. Technology-assisted care (TAC) can transcend geographic boundaries to reach many people otherwise unable to access services and is useful in a wide variety of settings, including Web-based interventions offered in the home, community organizations, schools, emergency rooms, and healthcare providers' offices, as well as via mobile devices and online social networks. Furthermore, TAC is often accessible on demand at the user's convenience, thus reducing barriers to accessing care.

As of 2014, 87 percent of the population used the Internet (Pew Research Center [PRC], 2014), and only 7 percent of those who did not use the Internet lacked access to it (PRC, 2013). In 2012, 72 percent of Internet users reported seeking health information online (PRC, 2013). This represents a substantial increase from 2009, when only 61 percent of adults reported looking for health information online (Jones & Fox, 2009). Moreover, 90 percent of people now own a cell phone (PRC, 2014) and 64 percent own a smartphone (PRC, 2015); of those with a smartphone, 62 percent reported having used it to acquire some type of health-related information (PRC, 2015). The number of adults who have an

account with an online social network increased from 8 percent in 2005 to 46 percent in 2009 (Lenhart, 2009c). Currently, 74 percent of adults who use the Internet use a social networking site, with 89 percent of those ages 18 to 29 and 82 percent of those ages 30 to 49 reporting use (Duggan et al., 2015). As a result of these considerable increases in overall online access, TAC could potentially have a significant impact on public health. Major strides have already been made in the promotion and use of telemedicine, including telebehavioral health.

The rapid growth of these resources requires a carefully planned response by treatment and prevention programs targeting behavioral health. In addition to relevant staff development and training, this response needs to address the specific electronic resources applicable to each program, the contexts in which those resources will be most useful, the benefits and risks of using them, the methods for preparing clients to accept and use these resources, and an organizational commitment to evaluating the effectiveness and utility of specific technologies. New technologies represent new means of communication; messages must be tailored to the technology and the issues at hand. For example, an email message will most likely need to be different from a text message. Use of advanced technologies also requires consideration of a number of legal and ethical issues, such as confidentiality, scope of practice, state licensure regulations, privacy, data security, consent management, and the potential for misuse.

Goal and Scope of This TIP

This Treatment Improvement Protocol (TIP) provides an overview of current technology-based assessments and interventions (including treatment, recovery support, relapse prevention, and prevention-focused interventions) targeting behavioral health, and it summarizes the evidence base supporting the effectiveness of such interventions. It also examines opportunities for TAC in the behavioral health arena—particularly in improving early access to care, client engagement in and commitment to treatment and recovery, client education, specific treatment interventions, relapse prevention and recovery management, extended recovery, community engagement, mental health promotion, and substance use disorder prevention, among other areas. This TIP addresses how behavioral health service providers can use Web sites, telephone and televideo resources, smartphones, and other portable devices and electronic media for education, outreach, and direct client services. It emphasizes use of TAC with clients who might not otherwise receive treatment or whose treatment might be impeded by physical disabilities, rural or remote geographic locations, lack of transportation, employment constraints, or symptoms of mental illness. This TIP emphasizes the use of TAC with those who might not seek treatment in conventional settings and/or who have personal preferences that limit access to conventional services.

It is definitely not the intent of this TIP to suggest that electronic media should replace in-person client contact. Instead, this TIP focuses on how TAC, when incorporated into mental and substance use disorder treatment and prevention efforts, can supplement existing methods and also provide services to clients who might not otherwise receive this help. It is also not the intent of this TIP to promote any particular technology-based therapeutic tools or any of the companies that develop or host these tools, but rather, to broadly highlight the promise of TAC by providing specific examples. This TIP does not explicitly address how use of TAC in behavioral health service delivery intersects with changing healthcare laws in the United States, but it does suggest that TAC may significantly increase

the quality of care delivered and the success of integrating behavioral healthcare with disease prevention and management.

In short, evidence-based TAC has the potential to reach more clients and help engage and retain them in services in a cost-effective manner. This TIP provides treatment and prevention workers in the behavioral health arena with the resources they need to use various technologies in their practice and to recognize the limits and ethical considerations involved in using them. It also provides behavioral health program administrators with the information they need to integrate and expand the use of technologies in their systems of care.

Principles for Using Technology-Based Therapeutic Tools

The content of this TIP was developed with continual input from a consensus panel of behavioral health clinicians, behavioral health program administrators, and federal agencies with significant experience, expertise, or interest in the provision of TAC in the behavioral health arena. The panel identified several key principles to guide TAC in behavioral health services. These principles provide overall guidance for the use of any type of electronic media or information technology targeting behavioral health, and as such, all sections of this TIP align with these overarching principles (Exhibit 1.1-1).

The Potential Utility of Technology-Based Therapeutic Tools

Technology-based assessments and interventions are of use in a variety of ways, and they may also be clinically meaningful along an entire spectrum of behavioral health services, including screening, assessment, prevention, treatment, recovery management, and continuing care. The use of technology, such as a computer or a mobile device, in screening for and assessing individuals' behavioral health needs may allow for the efficient, standardized, and cost-effective collection of clinically relevant client information in diverse settings. This can be particularly important in healthcare settings where clinicians trained in behavioral health assessment procedures are not readily available and where opportunities to identify individuals who may benefit from behavioral health interventions are missed. TAC gives clients access to screening, intervention, and oversight by trained behavioral

Exhibit 1.1-1: Principles To Guide TAC in the Behavioral Health Arena

The following key principles guide TAC in the behavioral health arena. All sections of this TIP were developed to align with these principles:

- Clinical judgment is fundamental and should drive decisions regarding the use of technology. Clinical judgment, and not merely the existence of a given technology, should guide the application of said technology in clinical contexts.
- Practitioners should use technological solutions only within their realm of professional competence and scope of practice.
- The way technology-based tools are used may differ across populations and settings.
- Clinicians and clients should thoughtfully consider and discuss the risks and benefits of technology-based tools as part of the therapeutic process.
- Technology can offer value for individuals and their families along the entire spectrum of behavioral health services. This may include screening, assessment, prevention, treatment, recovery management, and continuing care.
- Maintaining security and confidentiality in TAC is the responsibility of all parties engaged in such care.
- Clinicians, clients, and other stakeholders should continually work together to shape, maintain, and refine models for the adoption and use of technology-based therapeutic tools in treatment.

It's Not About the Technology

New technologies, such as telehealth, help improve healthcare services. For technology to succeed in doing so, it must work for the people it is meant to help; it must aid not only clients, but also the professionals providing their care. Telehealth helps ensure that clients who are veterans get the right care in the right place at the right time. It aims to make the home the preferred place of care whenever possible.

Source: U.S. Department of Veterans Affairs (VA) Telehealth Services (http://www.telehealth.va.gov)

health staff members in remote locations. Brief computerized screenings can identify individuals with varying levels and types of behavioral health needs and can identify the differing resources and services that may be helpful to them. These brief screenings may also be useful as a less intensive therapeutic option for individuals not willing to seek professional care actively at a given point in time.

TAC allows behavioral health service providers and their clients to communicate directly at the same time (synchronously) or at separate times (asynchronously). For instance, distance counseling approaches in which clients and clinicians interact in real time online or by phone exemplify synchronous communication, whereas text-based communication (e.g., text messaging, emails) between a clinician and client may be asynchronous; one sends a message, but the other may not reply until later. This chapter discusses technology-based therapeutic tools that fall in both general categories and may be integrated into treatment and prevention activities.

Technology-based interventions targeting behavioral health may be used as "clinician extenders," or additional tools used by clinicians that can also be made available to clients (Bickel, Marsch, & Budney, 2013; Carroll & Rounsaville, 2010; Marsch, 2011b). For example, distance counseling approaches may fill a treatment gap for those who cannot readily access care in their local communities: individuals in rural or remote settings, people who are unable to commute to behavioral health service providers' offices, and/or people uninterested in traditional service delivery models. Additionally, by offering TAC to clients (e.g., encouraging clients to complete online skills training modules), clinicians may increase their time availability for clients with multiple challenges; focus more of their time on the delivery of services that require their clinical expertise and interaction with clients; and enable clients to review repetitive but clinically important content, such as psychoeducational material, without having to devote extensive time to such activities themselves.

E-therapeutic tools can also serve as clinician extenders by helping clinicians work with a larger number of clients and/or for longer periods of time (e.g., online counseling offered as relapse prevention after a more intensive treatment episode), which allows them to have a greater impact with their service delivery. When used in this manner, TAC offers great potential for extending the benefits of treatment as well as allowing clients to access care when they need it the most. Time flexibility is another potential benefit of TAC, particularly through incorporation of technologies that enable asynchronous communication between clinicians and clients—making services available on demand at times that are convenient for clients. As a result, TAC allows widespread access to therapeutic support, thereby creating unprecedented models of intervention delivery and reducing barriers to accessing care.

The anonymity afforded by TAC (e.g., when conducted via online anonymous support groups) may be appealing to individuals when addressing sensitive topics such as substance

use and other risky behaviors (Des Jarlais et al., 1999; Ramo, Hall, & Prochaska, 2011). Anonymity, however, can also be a problem for behavioral health clinicians. It can create legal and ethical issues when there is no informed consent, when reportable use issues arise, when clients potentially pose a danger to themselves or others, and when the counselor can't verify whether the client lives in a state or region where the counselor is licensed, among a variety of other circumstances.

When information technology is used to deliver behavioral health interventions, new information can be incorporated easily and exported quickly. This is particularly true for Web- or mobile-based TAC, because updates in program content can be incorporated centrally and made available to all end users at the same time. Thus, TAC has the potential to offer the latest scientific advances in behavioral health services rapidly and continuously. TAC facilitates linkages to services and support systems in the community through:

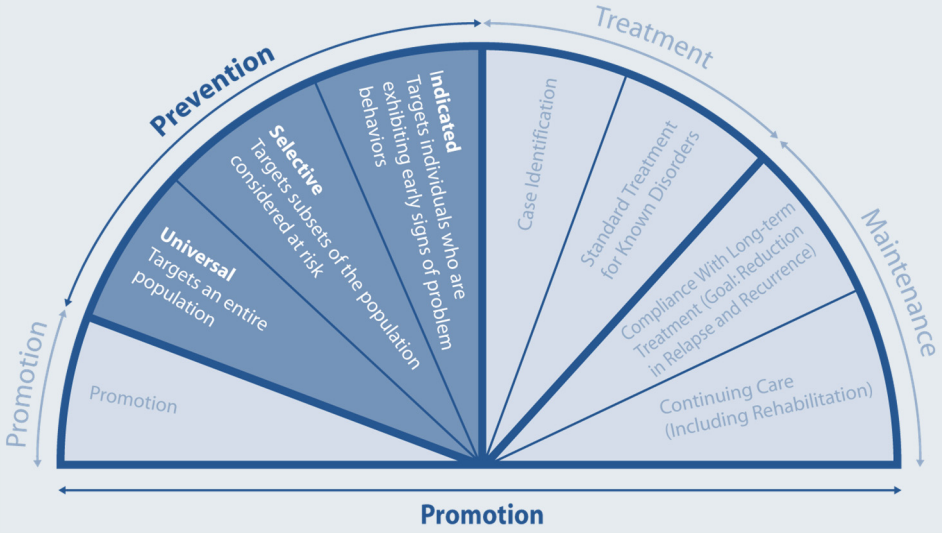
- Online resources or decision support systems to help individuals make choices about their own care.
- Online collaborative care/case management models for clinicians, which enable coordination of services among a network of providers and their clients (and sometimes clients' extended networks of family members and/or significant others).
- The ability to reach large populations (especially when delivered in nonspecialty settings, such as universal prevention efforts using online technologies).

Technology can play a role across the spectrum of prevention efforts (Exhibit 1.1-2).

The use of technology also offers individuals the opportunity for personalized recovery monitoring and management, including links to online or mobile recovery support groups (sometimes called virtual support groups). This may allow for new models of care in which individuals can take ownership of monitoring their own care and recovery.

The main costs of technology-based therapeutic tools are associated with completing initial development, keeping up with the latest research, training new staff members, and

Exhibit 1.1-2: Types of Prevention as Described by the Institute of Medicine



Source: Institute of Medicine, 2009. Used with permission.

evaluating effectiveness. Deployment costs are relatively limited and are associated with bandwidth for online access, technical support, licensing of the technology, and ongoing equipment maintenance and support. Thus, technology-based assessment and intervention tools may be cost effective and offer considerable utility for many resource-constrained service settings. Overall, TAC, when appropriately applied, holds great potential to have a significant impact on public health.

An Overview of Behavioral Health Technologies

This section provides an overview of specific technologies and their potential applications in behavioral health. This section is organized by types of technology, including telephone/audio counseling and video/Web conferencing tools; self-directed, Web-based, and desktop computer-based therapeutic tools; Web-based text communication (e.g., email, chat, forums); and mobile technologies. There is considerable overlap across these categories. For example, online counseling can refer broadly to any behavioral health service delivered via the Internet, even though delivery to clients can occur via a wide range of delivery platforms (e.g., computers, mobile devices). Nevertheless, the categories establish conceptual clarity and consistency with the approach taken in the literature by Maheu, Pulier, Wilhelm, McMenamin, and Brown-Connolly (2004).

For each category of technology, you will find a brief description and a review of its applications in assessment, prevention, treatment, and recovery support efforts targeting behavioral health. Several examples of how each type of technology has been applied in behavioral health programs are also provided (see Part 2, Chapter 2, for more real-world program examples).

Although this overview discusses technology and the many ways in which it can be used in detail, clinicians must be careful not to let the technology itself determine how it is integrated into clinical care. Technologies evolve rapidly, and new technologies are emerging all the time; clinicians should consider how a given tool will enhance clinical services and select only those technologies that are likely to be most beneficial to their clinical work and that they and their clients can use competently. Technologies and information technology tools serve supportive roles that enable clinicians to provide enhanced care under particular circumstances; in no way can they replace traditional methods and service delivery. Clinical need and clinical benefit should drive the use of technology—not the other way around!

Some e-therapeutic tools are more effective than others; among these are tools that integrate evidence-based content and evidence-based approaches for technology-dependent delivery (e.g., tools based on research into the optimal use of educational and informational technologies that allow for interactivity, modularity, and multimedia approaches in promoting behavior change; Aronson, Plass, & Bania, 2012; Bickel, Marsch, Buchhalter, & Badger, 2008; Campbell et al., 2014; Consolvo, Landay, & McDonald, 2009; Danaher, McKay, & Seeley, 2005; Gustafson et al., 2014; Ritterband & Tate, 2009; Webb, Joseph, Yardley, & Michie, 2010). Although TAC can mimic aspects of traditionally delivered, in-person behavioral health services, it differs in a number of ways. For example, self-directed, technology-based interventions, such as online skills training programs, cannot optimally engage clients in role-play; however, they can help ensure that clients are active participants in the learning process and can

document what content clients have or have not mastered in a given program (Marsch et al., 2013). As a result, technology-based approaches to behavioral health assessment and intervention should not be held to the same standards as traditional models of care; rather, consider what technology can do well and what it can do less well when embracing a TAC approach. Technology-based approaches should still be evaluated with the same rigor as traditional approaches and need to show evidence of empirical support before they are used in clinical settings (Kiluk et al., 2011). The use of technology warrants the same types of considerations as traditional care, such as being sure the client is benefiting from its incorporation into treatment, considering how and when to terminate its use in the context of the client's best interests, and monitoring the treatment process to note whether any modifications to the technology will be necessary.

Telephone/Audio Counseling and Video/Web Conferencing Tools

Understanding these technologies

Telephone or audio counseling allows for synchronous communication and delivers behavioral health services to clients via the telephone (the terms "telephone" and "audio" are used interchangeably hereafter). Telephone-based counseling services have existed for decades, so they no longer reflect use of a new technology, but this type of technology-dependent service delivery is still promising. Telephone counseling is distinct from interactive voice response (IVR) and therapeutic interactive voice response (TIVR) technologies, in that telephone counseling typically involves clients' verbal communication with a clinician by phone in real time, whereas IVR and TIVR approaches typically require clients to communicate verbally with a computer database by phone (e.g., interacting vocally with a computerized menu of options and receiving automated feedback based on their input).

Video or Web conferencing can be conducted in a number of ways, but it typically involves a behavioral health specialist evaluating and providing consultation or counseling to a client via live, two-way, interactive audio/video connection. Synonymous terms include online counseling, Web therapy, distance counseling, telemental health, cybercounseling, and behavioral telehealth. The Health Resources and Services Administration's Web site (http://www.hrsa.gov/ruralhealth/about/telehealth) 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."

Telephone-based counseling is already a common practice, and video or Web conferencing as well as other types of telehealth approaches are rapidly growing in acceptability. The increasing availability and reduced cost of voice over Internet protocols (VOIPs), broadband connections, and video quality are making telehealth models more accessible to large numbers of individuals. The distinction between these approaches has diminished with the ever-growing availability of mobile phones and tablets, which often include video technology and thus allow for more efficient use of telephone- and video-based therapeutic interventions. Many states have, and some are developing, specific laws, rules, and regulations regarding telehealth interventions.

Applying these technologies to behavioral health

Reviews of the scientific literature on telephone-based counseling have underscored the utility of this approach in a number of areas, such as physical activity and dietary behavior

change (Eakin, Lawler, Vandelanotte, & Owen, 2007), smoking cessation (Meites & Thom, 2007), and improvement of mental status and quality of life (Mohr, Carmody, Erickson, Jin, & Leader, 2011; Piette et al., 2011). This approach also increases follow-up capabilities in healthcare settings (Racine, Alderman, & Avner, 2009) via telephone-based contacts or visits. Additionally, interventions via telephone can be clinically useful tools when addressing the behavioral health needs of clients in primary care settings (Glasgow, Bull, Piette, & Steiner, 2004; Jordan, Ray, Johnson, & Evans, 2011). Several studies have demonstrated the feasibility, acceptability, and efficacy of using the telephone to obtain data regarding their substance use from adolescents receiving treatment for substance use disorders and to provide telephone-based counseling interventions targeting substance use among youths (Burleson & Kaminer, 2007; Kaminer, Burleson, Goldston, & Burke, 2006; Kaminer & Napolitano, 2004). These studies highlight the efficacy of telephone-based interventions and suggest that youths may prefer telephone-based interventions to in-person counseling. Recent review papers also support the use of telephone-delivered behavioral counseling as a tool for improving health in people with chronic illness (Muller & Yardley, 2011).

Telephone-based IVR interventions have been shown to have considerable clinical utility in areas such as the behavioral management of chronic pain (Naylor, Keefe, Brigidi, Naud, & Helzer, 2008) and as part of posttreatment smoking cessation efforts (Regan, Reyen, Lockhart, Richards, & Rigotti, 2011). As telephones, including mobile phones, have been a routine part of life for so long, research typically shows that both clinicians and clients are comfortable with telephone-based counseling. Indeed, many clients consider telephone counseling a satisfying and helpful process (Reese, Conoley, & Brossart, 2002, 2006).

Video conferencing/telehealth approaches have been increasingly useful to a wide range of clients, including individuals in remote locations (e.g., Alaskan Native villages), the elderly, military personnel, individuals who are hearing impaired, and incarcerated individuals (Simpson & Morrow, 2010), as well as those with serious mental illness (SMI; Sharp, Kobak, & Osman, 2011). Although more research is needed, data to date suggest that

HealthCall and HealthCall-S

The growing use and affordability of smartphones continues to stimulate their use by researchers for gathering data and developing innovations in behavioral health clinical applications with IVR systems. For example, to monitor substance use, Hasin, Aharonovich, and Greenstein (2014) developed HealthCall-S as an adaptation of the HealthCall IVR programs that have been used in research and clinical practice for more than 5 years. HealthCall's self-monitoring component allows users to monitor their drinking by answering questions about their behaviors; they "receive reinforcement for doing so (e.g., 'We're glad you called')" (Hasin et al., 2014, p. 2). Clients also receive personalized feedback through in-person interactions with a staff member, as the contributors to the development of HealthCall found that participants preferred a combination of technology-based and interpersonal support interventions. HealthCall-S was specifically designed to take advantage of smartphone capabilities and to do so with input from clients themselves; a pilot study showed its acceptability by clients and some limited evidence of its possible usefulness in promoting abstinence among individuals with both HIV and alcohol dependence. Another study that highlighted the role of smartphones in managing symptoms of mental illness was a pilot study of a smartphone intervention with clients who had schizophrenia; results showed acceptability and preliminary efficacy for reducing symptoms in clients over the course of the month-long study (Ben-Zeev et al., 2014).

video conference-based interventions produce outcomes comparable to more traditionally delivered in-person counseling and may provide a useful alternative when in-person counseling is not possible (García-Lizana & Muñoz-Mayorga, 2010b; Norman, 2006). Additionally, some evidence suggests that clients may participate in counseling sessions more if they are offered in a distance telehealth environment as an alternative or an adjunct to in-person settings (Day & Schneider, 2002).

Self-Directed, Web-Based, and Computer-Based Therapeutic Tools

Understanding these technologies

Self-directed, technology-based therapeutic tools are typically assessments and interventions provided as stand-alone programs via technology-based platforms. These programs are self-directed in the sense that clients can access and use them with or without assistance from a clinician. Often, these programs enable both clients and providers to access helpful information. For example, clinicians may receive updates about client activity from the program, and clients may access help in determining how to use and benefit optimally from the program.

These therapeutic tools are accessible online (e.g., interactive, Web-based coping skills training programs; Web-based behavioral management software) or as computer-based programs run from a DVD or a flash drive on a local machine. Computer-based programs that are not Web based may have utility in specific settings where Internet access is limited, such as in criminal justice settings and certain residential treatment programs. However, Web-based, self-directed therapeutic tools offer a number of advantages, including the ability to update centrally and deploy content within a given program as needed (e.g., when new information becomes available that is important for an entire population to receive), the ability to track user activity within a program over time via unique login information, and aggregation of user activity data across client groups (e.g., to allow a provider to review summary information of all of his or her clients). Although the Internet and online assessment and intervention tools are accessible via mobile devices (mobile phones, tablets, and other devices), this section focuses on therapeutic tools accessed primarily via desktop or laptop computers. Therapeutic tools accessible via mobile devices are described later in this chapter.

Applying these technologies to behavioral health

Interventions that incorporate computer-based, self-directed interactive technology have been used to assess behavioral health, to provide services, and to promote health behaviors related to diabetes (Wise, Dowlatshahi, Farrant, Fromson, & Meadows, 1986), eating disorders (Tate, 2011), substance use disorder

Telehealth Video Session Produced by the National Frontier and Rural Addiction Technology Transfer Center

The Substance Abuse and Mental Health Services Administration (SAMHSA)-funded Addiction Technology Transfer Center (ATTC) Network has designated its National Frontier and Rural (NFAR) ATTC as the focus area lead for the delivery of addiction-related telehealth services to frontier and rural communities. Telemental health, addiction, and training services were first introduced into frontier and rural areas decades ago (LaMendola, 1997). NFAR provides free resources and ongoing "Telehealth Tuesdays," including an easily accessible 15-minute counseling session video with a client in continuing care, all of which are available online (http://www.attcnetwork.org/national-focus-areas/content.aspx?rc-frontierrural&content=STCUSTOM1).

prevention (Chiauzzi, Brevard, Thurn, Decembrele, & Lord, 2008; Chiauzzi, Green, Lord, Thum, & Goldstein, 2005; Hester & Delaney, 1997; Marsch, Bickel, & Badger, 2007; Schinke, Schwinn, & Cole, 2006; Schinke, Schwinn, Di Noia, & Cole, 2004; Schinke, Schwinn, & Ozanian, 2005), HIV/AIDS prevention (Marsch & Bickel, 2004; Marsch et al., 2011; Noar, Black, & Pierce, 2009), and methadone maintenance treatment (Marsch et al., 2013). Computerized treatments for mental disorders have been most widely developed and extensively used for anxiety, traumatic stress, and depressive disorders (Barlow, Ellard, Hainsworth, Jones, & Fisher, 2005; Newman, Consoli, & Taylor, 1997; Newman, Kenardy, Herman, & Taylor, 1997; Selmi, Klein, Greist, Sorrell, & Erdman, 1991). Computer-based interventions to treat these disorders may, in part, reflect the manuals developed for cognitive–behavioral treatments of these disorders. Treatments that have been broken down into discrete procedures as part of the production of a treatment manual are easy to adapt for computer-based interventions. For example, computer programs have successfully implemented such mental health techniques as cognitive restructuring (Selmi, Klein, Greist, Sorrell, & Erdman, 1990), relaxation training (Buglione, DeVito, & Mulloy, 1990), systematic desensitization (Chandler, Burck, Sampson, & Wray, 1988), and self-exposure (Carr, Ghosh, & Marks, 1988). Furthermore, an interactive, Web-based intervention called the Therapeutic Education System (Bickel et al., 2008; Campbell et al., 2014) effectively delivers cognitive–behavioral therapy/community reinforcement approach treatment for individuals with substance use disorders and may be as effective as counseling delivered by highly trained clinicians. A computerized program for substance use disorders that is theoretically grounded in cognitive–behavioral therapy (the CBT4CBT program; Carroll et al., 2008; Carroll et al., 2014) can significantly enhance outcomes when provided as an adjunct to traditional treatment for substance use disorders, and other programs have effectively integrated motivational interviewing approaches (Hester, Squires, & Delaney, 2005; Ondersma, Chase, Svikis, & Schuster, 2005; Ondersma, Svikis, & Schuster, 2007) that target alcohol and other substance use disorders.

An automated, Internet-based contingency management (abstinence reinforcement) intervention called Mōtiv8, which obtains video-based evidence of smoking behavior and reinforces evidence of behavior change (e.g., smoking reduction, abstinence), has produced outcomes that generally meet or exceed the effects produced by nicotine replacement therapies (Dallery & Glenn, 2005; Dallery, Glenn, & Raiff, 2007). An interactive decision support system has shown great promise in helping individuals with SMI initiate smoking cessation treatment (Brunette et al., 2011).

The use of computers may help increase behavioral health counselors' awareness of

Computer-Based Training for Cognitive–Behavioral Therapy

Investigators are conducting a randomized clinical trial (Clinical Trial NCT 01615497) of a Web-based version of a computer-based training for a cognitive–behavioral therapy program called CBT4CBT, which was specifically designed to address alcohol use. Clinical Trial NCT 01615497 is evaluating CBT4CBT's effectiveness relative to standard outpatient counseling in a substance use disorder treatment unit. CBT4CBT teaches basic coping skills, offers video-based examples of effective use of coping skills in various realistic situations, and allows clients in substance use disorder treatment to practice and review new skills.

Source: http://www.clinicaltrials.gov/show/nct01615497

community-based resources for client referrals (Carise, Gurel, McLellan, Dugosh, & Kendig, 2005). Additionally, research evaluating computerized tools for providing screening, brief intervention, and referral to treatment for behavioral health needs has generated promising results to date (Vaca, Winn, Anderson, Kim, & Arcila, 2011; see Part 3 of this TIP, the online literature review, for more information). Interactive computer games targeting various areas of behavioral health have also shown promise (Foley & Maddison, 2010), including games that use virtual coaches (Watson, Bickmore, Cange, Kulshreshtha, & Kvedar, 2012). Overall, literature reviews on the use of computer-generated health behavior interventions underscore the effectiveness of such interventions in producing health behavior change (Moore, Fazzino, Garnet, Cutter, & Barry, 2011; Revere & Dunbar, 2001; Tate & Zabinski, 2004; Taylor & Luce, 2003; Wantland, Portillo, Holzemer, Slaughter, & McGhee, 2004). Comparisons of computer-delivered interventions with person-delivered interventions generally report comparable outcomes (Marsch & Bickel, 2004; Marsch et al., 2007; White et al., 2010).

Web-Based Text Communication: Email, Chat, Forums, Electronic Mailing Lists, and Social Networks

Understanding these technologies

This section focuses on text-based communication that may be useful in the behavioral health arena, with a particular focus on email, chat rooms, electronic mailing lists, and forums. Text-based communication that most frequently occurs via mobile devices (e.g., text messaging) is described later in this chapter.

Chat rooms typically refer to open "rooms" online in which individuals can come and go as they wish and communicate synchronously with any or all participants in the chat room. Many, but not all, chat rooms that focus on behavioral health are moderated by a clinician who posts comments, guides discussions, and sometimes screens comments written by others before allowing them to post. Whether chat rooms are overseen by clinicians or by peers, they typically include guidelines for participation, with designated moderators who monitor content to ensure that participants remain on topic and are appropriate and respectful. Instant messaging typically refers to a private, real-time communication between two or more people in a secure (not public) chat room. However, privacy issues can become an issue in chat rooms, particularly those that are not monitored.

Online support forums are typically organized in a bulletin board format that allows users to post anonymous, text-based communications. Online support groups typically enable asynchronous communication, as do electronic mailing lists (email lists that do not require logging in to a Web site to view postings). For example, the support forum Patients Like Me (http://www.patientslikeme.com) offers Web-based exchanges of information among clients or interested parties related to numerous health conditions and disorders, including types of depression ranging from major depressive disorder to postpartum depression.

Online social networks let members keep in contact with others and/or meet new people. These sites offer a number of elements, including blogs, pictures, chat and private messaging capabilities, and videos. At the time of this writing, Facebook is one of the most popular online social networks. As of March 31, 2015, Facebook reported 1.44 billion monthly users and 936 million daily users worldwide (Facebook, 2015). Facebook has collaborated with several suicide prevention efforts, including those of SAMHSA, to offer unique forms of prevention through social media (for more

information, see http://blog.samhsa.gov/2011/12/13/facebook-provides-first-of-a-kind-service-to-help-prevent-suicides/). Although the online social network of the moment may change over time, online social networks will likely persist, offering considerable potential to function as platforms for behavioral health screenings, brief interventions, and referrals to care. Note that it is possible to set up semi-private online social networks (often within larger online social networks) composed of individuals with common interests (e.g., smoking cessation). For more about social networks and introductory information, see "Emerging Technologies and Future Opportunities" later in this chapter and "Internet Security and Privacy Considerations for Clinicians and Clients" in Part 2, Chapter 2.

Applying these technologies to behavioral health

Text-based communication can be used in a number of ways in the behavioral health arena. Email can be used for routine contacts, such as setting appointments, or for therapeutic purposes, such as following up on counseling sessions (e.g., to send motivational messages encouraging clients to engage in specific therapeutic activities between scheduled counseling sessions) or actually conducting some portion of counseling. Emails, encrypted or unencrypted, can be automated (e.g., system-generated prompts to encourage clients to keep daily diaries) or generated by providers. Providers can choose to accept and monitor email responses from clients, allowing for dialog, or they can limit communication to one-sided messages sent from the clinician to the client. Email has utility in addressing issues such as eating disorders, smoking cessation, work stress, and weight-loss counseling (Polosa et al., 2009). As with all forms of electronic communication, compliance with the Health Insurance Portability and Accountability Act (HIPAA) and other federal and state regulations regarding privileged communication is a primary concern.

Chat counseling in chat rooms or via instant messaging can achieve purposes similar to those of email but typically requires more abbreviated interactions (e.g., abbreviated words, emoticons; Derrig-Palumbo, 2010). Chat counseling can target an array of behavioral health issues, including problematic alcohol use (Blankers, Koeter, & Schippers, 2011), stress management (Hasson, Brown, & Hasson, 2010), and HIV prevention (Rhodes et al., 2010).

Online social networks can be an excellent forum for conducting online surveys and assessments related to behavioral health (Lord, Brevard, & Budman, 2011). Research into optimal uses of online social networks for behavioral health interventions is still in its infancy, but work to date underscores the potential utility of this platform in engaging hard-to-reach populations (Levine et al., 2011) and promoting behavior change (Moreno et al., 2009), particularly when offered in the context of online communities or support groups that target specific behavioral health issues (Griffiths, Calear, & Banfield, 2009; Selby, van Mierlo, Voci, Parent, & Cunningham, 2010). However, online social networks can be problematic due to their general lack of HIPAA compliance and because of the tendency of clients to post private information in public forums. Additionally, providers who use such networks are faced with how to act on their legal and ethical duties in such venues. Many service delivery organizations, state governance groups, and funders use online survey instruments, either within social platforms or as stand-alone tools, to assess targeted population needs for planning activities or to collect satisfaction data.

Mobile or Handheld Technologies

Understanding these technologies

The term "mobile devices" refers to a number of types of handheld and mobile computers, but it most frequently denotes mobile phones and includes both smartphones (handheld computers that can run a complete operating system and thus can function as a platform for app developers) and feature phones (mobile phones that have less computing capacity than smartphones). The popularity of mobile phones has increased dramatically in recent years. Global penetration of mobile cellular subscriptions has reached 87 percent and currently stands at 79 percent in the developing world, with about 6 billion mobile phone subscriptions worldwide; mobile broadband subscriptions have grown 45 percent annually over the past 4 years, and today, there are twice as many mobile broadband as fixed broadband subscriptions (ITU, 2011b). Given the widespread use, ease of use, portability, and high level of computing capacity of even basic feature phones, these technologies offer great potential for affecting public health and healthcare delivery.

Applying these technologies to behavioral health

Mobile devices can be used for a wide variety of therapeutic purposes, including:

- Mobile data collection tools to obtain data about users' emotional states and behavior in real time (e.g., ecological momentary assessment; Shiffman, 2009).
- Short messaging services (SMS), also known as text messaging or texting, which typically allows a limited amount of data to be transmitted (usually between cell phones). SMS is easy to use and allows for data to be entered into a database and monitored in real time (Lim, Hocking, Hellard, & Aitken, 2008; Merz, 2010), which in turn facilitates the sending of messages that encourage client/recipient engagement in health promotion and/or treatment-related activities.
- Applications embedded on mobile devices and/or accessed on servers via mobile devices to provide in-the-moment interventions designed to reduce health risk behavior. Although many apps are accessed primarily on mobile phones, these software programs are often accessible on a wide array of hardware, including tablets and other computer platforms.

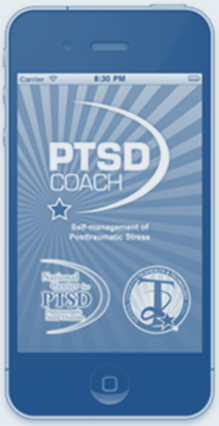
The use of mobile devices for collecting data in real time has led to enormous advances in understanding the behavior states of individuals. Collection of real-time data via these devices can provide data that are more accurate than data obtained via retrospective recall (Ben-Zeev, McHugo, Xie, Dobbins, & Young, 2012; Shiffman, 2009). Data collection via mobile devices in real time also offers the opportunity to provide in-the-moment interventions in response to participants' behavior state, addressing their mood, medication regimen compliance status, symptoms, or functioning (Granholm, Ben-Zeev, Link, Bradshaw, & Holden, 2012). Offering evidence-based interventions via mobile devices and apps holds great promise for enabling access to behavioral health services outside of formal treatment settings and when individuals may be most likely to engage in risky behavior. Participation in therapeutic activities in one's natural environment and outside of formal systems of care may enhance outcomes (Carroll et al., 2008; Carroll, Nich, & Ball, 2005), enabling more generalization of skills as applied in real-world settings.

The scientific literature on mobile phone-based interventions, although limited to date, suggests that they may hold great promise. One-sided text messages, for instance, from

provider to consumer, have shown considerable utility in promoting treatment compliance (e.g., for asthma, diabetes, medication management; Franklin, Waller, Pagliari, & Greene, 2003, 2006; Tasker, Gibson, Franklin, Gregor, & Greene, 2007) and self-monitoring of health behavior, such as healthy eating and exercise. Text message prompts can also significantly improve attendance at medical appointments (Chen, Fang, Chen, & Dai, 2008; Downer, Meara, Da Costa, & Sethuraman, 2006; Leong et al., 2006) and compliance with vaccinations (Villela et al., 2004). Moreover, these prompts show promise in weight loss (Gerber, Stolley, Thompson, Sharp, & Fitzgibbon, 2009; Shapiro et al., 2008) and HIV risk reduction (Juzang, Fortune, Black, Wright, & Bull, 2011).

More recent developments in mobile technology enable the continuous tracking and monitoring of health information as well as interactive programming on mobile phone platforms. Additionally, two-way text messaging may allow clients to input data that lead to in-the-moment interventions delivered in real time, enabling clients to connect with behavioral health service providers in many different settings. This technology has facilitated the development of more sophisticated mobile interventions to promote behavior change, including weight loss (Joo & Kim, 2007; Patrick et al., 2009) and diabetes management (Cho, Lee, Lim, Kwon, & Yoon, 2009; Kim & Kim, 2008; Quinn et al., 2008). One example of using advances in programming and adaptive algorithms to permit apps to select content based on an individual's characteristics and prior responses is a program that provided text messages and other information to employees with diabetes that enabled each employee to regulate the number of text messages that the employee would receive (Nundy et al., 2014). By being sensitive to how an employee felt about the number of text messages received, the researchers hoped to build engagement with and acceptance of the program and its use. Evidence showed that their client-centered efforts worked; many participants were happy to receive several messages a day, with one employee stating that the messages made him feel that he did not have to handle the complexities of his diabetic condition entirely on his own.

PTSD Coach



PTSD Coach is an app created by the VA's National Center for PTSD and the U.S. Department of Defense's National Center for Telehealth and Technology. This app helps users learn about and manage symptoms that commonly occur after trauma. Features include:

- Reliable information on posttraumatic stress disorder (PTSD) and treatments that work.
- Tools for screening and tracking symptoms.
- Convenient, easy-to-use skills to help clients handle stress symptoms.
- Direct links to support and help.
- Continuous accessibility; the app is available to clients whenever they need it, wherever they are, so long as they have an appropriate, enabled device.

Together with professional treatment, PTSD Coach provides clients who have or may have PTSD with dependable, trustworthy resources. Family and friends can also learn from this app. As of February 2014, PTSD Coach has been downloaded 138,000 times in 84 countries.

Source: http://www.ptsd.va.gov/public/pages/PTSDCoach.asp

Mobile phone-based interventions show promise in reducing smoking and alcohol use (Brendryen, Drozd, & Kraft, 2008; Brendryen & Kraft, 2008; Free et al., 2009; Haug et al., 2008; Lazev, Vidrine, Arduino, & Gritz, 2004; Obermayer, Riley, Asif, & Jean-Mary, 2004; Riley, Obermayer, & Jean-Mary, 2008; Rodgers et al., 2005; Weitzel, Bernhardt, Usdan, Mays, & Glanz, 2007; Whittaker et al., 2009). Mobile devices can also function as tools to prevent substance use disorder relapse (McTavish, Chih, Shah, & Gustafson, 2012). Embedding elements of cognitive–behavioral therapy on mobile devices can significantly increase treatment retention and improve abstinence as part of outpatient substance use disorder treatment (Marsch, 2011a).

It is important to understand the empirical support for various mobile interventions before recommending their use in clinical contexts. In addition to reviewing published studies that evaluate various technology-based tools, including studies covered in Part 3 of this TIP (available online), some centralized resources are available to help individuals evaluate the empirical support for many technology-based behavioral health tools (e.g., http://www.c4tbh.org/technology-in-action/program-reviews; Maheu, Pulier, & Roy, 2013; http://nrepp.samhsa.gov; http://www.telementalhealthcomparisons.com.

Exhibit 1.1-3 provides examples of technology-based therapeutic tools targeting differing areas of behavioral health and using various types of electronic media.

Text-Based Smoking Cessation

Text messaging interventions provided via mobile devices can increase smoking cessation, particularly among higher-income individuals. One such intervention, txt2stop, can more than double biochemically verified smoking cessation (Free et al., 2013). Compared with standard support, the txt2stop intervention, which delivered five text messages per day for the first 5 weeks and allowed users to text the words "crave" or "lapse" to receive an instant message of support when a craving struck, produced 10.7 percent continued abstinence at 6-month follow-up, compared with just 4.9 percent continued abstinence among participants who had received standard smoking cessation services (National Institute for Health Research Clinical Research Network, 2011).

Emerging Technologies and Future Opportunities

Significant developments in technology continue to emerge and offer great promise for integration into behavioral health services. Ubiquitous computing (sometimes called ubicomp or pervasive computing) and ambient intelligence are rapidly evolving fields in which human–computer interactions are embedded into everyday objects and activities. Ubiquitous or pervasive computing typically refers to technologies that "weave themselves into the fabric of everyday life until they are indistinguishable from it" (Weiser, 1991, p. 94). For example, ubiquitous computing technologies may include sensors to assess physiological states. Such sensors are worn by individuals on their bodies or are embedded within mobile devices, allowing the unobtrusive and objective measurement of psychophysiological states, as well as biological and environmental variables, in real time (e.g., via interaction between the sensors and mobile computing devices). One example of this approach is a suite of wearable sensors that collect and process cardiovascular, regulatory, and thermoregulatory measurements to infer stress as individuals move through their daily lives (Ertin et al., 2011). Other sensors infer physical activity, social interactions, and behavioral risk factors by capturing and interpreting a variety of characteristics of speech via smartphone (Choudhury et al., 2008). Barnett, Tidey,

Exhibit 1.1-3: Examples of Technology-Based Therapeutic Tools Across Technological Categories

Telephone/audio conferencing	**Telephone Monitoring and Brief Counseling Intervention:** 15-minute phone calls weekly between counselor and client; accompanying client workbook targeting substance use (McKay et al., 2004).
Video/Web conferencing	**VA National Telehealth Services:** Designed for counselors to treat numerous diagnoses in VA clients via multiple treatment modalities in a wide range of settings (http://www.telehealth.va.gov/real-time/index.asp).
Self-directed, web-based tools	**Online, Tailored Interventions Targeting Obesity and Eating Disorders:** Self-directed, Internet-based behavioral treatment (Tate, 2011).
Email	**Email-Based Psychotherapy:** Therapeutic intervention targeting depression (Vernmark et al., 2010).
Chat	**Internet Chat as Aftercare:** An 8- to 10-session online chat-based continuing care intervention to facilitate transfer from inpatient to outpatient psychiatric care (Golkaramnay, Bauer, Haug, Wolf, & Kordy, 2007).
Text	**txt2stop:** Mobile phone text messaging intervention to promote smoking cessation (Free et al., 2011; see the Text-Based Smoking Cessation box in the "Mobile or Handheld Technologies" section of this chapter).
Forums	**Schizophrenia Online Access to Resources:** Online therapeutic forum for individuals with SMI (and their supporters) that focuses on helping individuals solve problems, achieve personal goals, and meet personal needs (Rotondi et al., 2010).
Tools for mobile/handheld devices	**Addiction Comprehensive Health Enhancement Support System:** Personalized monitoring/support for individuals in recovery from substance use disorders; global positioning system to detect when users are nearing high-risk environments; personalized stories of recovery experiences; links to support network (Gustafson et al., 2011). **PTSD Coach:** See the "PTSD Coach" box in the "Mobile or Handheld Technologies" section of this chapter.
Emerging technologies	**National Center for Telehealth and Technology (T2):** Provides innovative solutions in health technologies for traumatic brain injuries and psychological health through such mobile apps as T2 Mood Tracker and Breathe2Relax, among other efforts (http://t2health.dcoe.mil/apps/t2-mood-tracker). **AutoSense:** Wearable sensor suite for inferring stress (Ertin et al., 2011).

Murphy, Swift, and Colby (2011) conducted a pilot contingency management study using a transdermal alcohol sensor that measures the very small amount of ingested alcohol that is excreted though the skin. The Secure Continuous Remote Alcohol Monitoring bracelet

used in this pilot study is being used in veterans' treatment courts, including the Center for Substance Abuse Treatment (CSAT)/Justice for Vets collaborative Mentor Court in Tulsa, OK (http://www.justiceforvets.org/veteran-mentor-courts).

Ambient intelligence refers to an intelligent environment or an intelligent service system that can anticipate, adapt to, and meet users' needs. Although these evolving technologies (such as smart homes) have only just started to be applied to behavioral health, they could have a marked impact on the field, incorporating many of the technologies already available and in use. These approaches could allow for real-time, unobtrusive psychophysiological measurement and on-demand, continuous access to tailored support, education, and interventions targeting behavioral health. For example, ubicomp tools can obtain real-time data on physiological and environmental factors that precede and follow risk behavior (or healthy behavior) and can provide in-the-moment interventions that are responsive to these factors. These tools may enable unprecedented levels of tailoring for individuals over time. However, such efforts will, of course, require careful consideration of issues related to disclosure, consent, and privacy.

The term "virtual" often refers to anything that takes place online rather than in the real world, but for the purposes of this TIP, "virtual reality" (VR) refers specifically to technology that reproduces realistic conditions and/or computerizes certain aspects of monitoring and/or data collection. The use of VR in helping veterans with PTSD is just one glimpse of the types of future progress that may be achievable with these new technologies.

VR allows users to visualize, manipulate, and interact with computers and highly complex data (Aukstakalnis and Blattner, 1992). Extensive and promising work has been conducted for more than 15 years in the use of VR to treat combat-related PTSD. Comparing VR with the use of aircraft simulators to train pilots, Brennan (2013) described VR's ability to create "context-relevant simulated environments where assessments and treatment of cognitive, emotional, and motor processes can take place…extend[ing] the skills of the clinician by allowing the clinician to precisely and systematically deliver complex, dynamic, and ecologically relevant stimulus presentations… within which sophisticated interaction, behavior tracking, performance recording, and physiological monitoring can occur" (pp. 377–378).

In addition to more than 190 clinical trials related to VR and exposure therapy for PTSD and other health-related uses of VR (see the "VR and ClinicalTrials.gov" box on the next page), the Army's immersion VR system has produced advances in measurement capabilities, such as the development of a measure for a stress indicator referred to as allostatic load (AL). Allostasis is how the body tries to maintain stability in the face of acute stress. The Army has used VR to develop a measure of AL based on inflammatory, metabolic, cardiovascular, adrenal, and renal systems of the body. According to Brennan (2013), AL gauges the cumulative negative impact of the stresses of daily life, indicating how a person is influenced by such stress in the long term. The concept of AL has led to research on the differences in how people experience stress and on possible measures of resiliency to stress. Thus, the use of VR for research and treatment may not only expand the range of knowledge and the options for treatment, but also lead to a higher level of understanding and experience than has been possible in the past.

VR and ClinicalTrials.gov

A search for VR in the http://www.clinicaltrials.gov search engine in early May 2014 yielded 190 clinical trials with topics such as:

- Exposure therapy for PTSD.
- Rehabilitation after a stroke.
- Balance training exercises in older adults.
- Weight loss through the use of a VR platform, Second Life, compared with face-to-face methods.
- Medical and scientific training and education, such as the effects of marijuana.
- Wearable sensors.
- Other physical conditions (e.g., pain and memory conditions) and behavioral conditions (e.g., anxiety management, social phobia, agoraphobia, panic disorder, autism spectrum disorder, attention deficit hyperactivity disorder, smoking cessation, fear of flying).

Integrating Technology Into Existing Services

The ever-widening range of technology-based therapeutic tools becoming available may seem daunting as you attempt to determine which tools will be the most useful in providing TAC to your clients. This section outlines several issues to consider when integrating electronic technologies into your work. First and foremost, you must maintain awareness of the scope of your professional competence and work within its boundaries even as you explore TAC approaches. It is also important to understand which technology-based therapeutic tools have been shown to be the most effective, as not all such tools have both evidence-based content and evidence-based guidance for use. An ethical behavioral health service provider considers available evidence supporting the incorporation of a given technology-based intervention into clinical practice. Rather than use a technology-based intervention merely because the opportunity exists, review such interventions to ascertain which have been shown to produce optimal outcomes in contexts similar to those in which you will be working (see Part 3 of this TIP, available online, for many such reviews).

Additionally, the types of technology-based tools that will be most useful depend on the audiences being targeted and the settings in which those tools will be used. For example, self-directed, technology-based interventions and asynchronous forms of technology-based communication may be particularly useful with specific subgroups of clients, such as those with social phobias. The same types of technology-based interventions may elicit more honest communication with clients due to the perceived anonymity or confidentiality they enable; clients may be more comfortable addressing particularly sensitive topics in front of a computer screen or a mobile device than during in-person communication. Asynchronous communication and self-directed, technology-based tools can also be particularly useful to people who don't routinely have access to a private space where they can talk on the phone or through VOIP to a clinician but do have access to a computer or mobile device.

In some cases, however, the use of technology in therapy is contraindicated. For client populations that include individuals who are experiencing significant emotional distress or complex situations (such as domestic violence), counselors must give careful thought to how to use technology appropriately to enhance care. Clients who are actively suicidal, homicidal, or severely emotionally distressed may not be good candidates for online care (CSAT, 2009c; International Society for Mental Health Online–Clinical Study Group, 2010; Stofle, 2001). Keep in mind that self-directed and asynchronous tools cannot convey your clients' nonverbal cues (e.g., intoxication, crying) and may not be ideal for clients

who find typing difficult or frustrating. Clients who are isolated and crave social interaction or feel the need to get out of the house may not be good candidates for technological interventions that decrease in-person contacts.

By contrast, self-directed and asynchronous tools may be particularly appealing to teens and young adults who have grown up on the Internet and spend most of their time interacting with some technology. A Kaiser Family Foundation study (Rideout, Foehr, & Roberts, 2010) found that the exposure to media of children and teenagers 8 to 18 years old increased roughly 20 percent from 2004 to 2009. Estimates of the amount of total recreational use of all devices, per day, every day of the week, reached almost 7.5 hours in 2009.

Several studies underscore the acceptability and appeal to youths of computer-delivered interventions relative to more traditional models of care. For example, among the most significant barriers to adolescents' participation in substance use disorder treatment is dislike for their counselors, discomfort talking about personal problems with another person, and finding counseling unhelpful (Mensinger, Diamond, Kaminer, & Wintersteen, 2006). As a result, computer-based counseling may be appealing to youths. Indeed, youths may prefer Internet-delivered substance use disorder interventions over more traditional interventions (Chambers, Connors, & McElhinney, 2005). Many youths report that they find interactive computer learning environments preferable to traditional learning environments, in that computer-based learning allows them to solve problems actively and independently while still receiving individualized feedback (McKinsey and Company & U.S. National Information Infrastructure Advisory Council, 1995; Roker & Coleman, 1997).

Additionally, a growing body of research has highlighted the utility of technology for health promotion among aging populations, including the promotion of health-related knowledge and functional longevity (Tse, Choi, & Leung, 2008). Furthermore, computerized cognitive remediation tools designed to enhance cognitive skills through exercises that target problem solving, attention, memory, and abstract reasoning have been shown to have promise in populations with SMI as well as among individuals with substance use disorders (McGurk, Twamley, Sitzer, McHugo, & Mueser, 2007; Pedrero-Perez, Rojo-Mota, Ruiz-Sanchez de Leon, Llanero-Luque, & Puerta-Garcia, 2011).

A key benefit of telephone-based counseling is the accessibility of phones (including cell phones) to a number of populations. Thus, phone-based counseling has broad appeal and utility. It is, however, important to add that the use of technology for technology's sake does not help the clinician or the client. Any use of technology should engage both the clinician and the client, making the use of time more effective and valuable for both.

Legal and Ethical Issues To Consider

Ethical considerations in TAC are often extensions of (and in many cases, overlap with) ethical considerations in traditionally delivered behavioral health services. However, some unique considerations arise for TAC. As clinical practices differ in various settings, it is not possible to cover every possible ethical and legal consideration relevant to the incorporation of technology into behavioral health services. That said, this section addresses some of the most significant ethical and legal issues to consider when providing TAC.

Confidentiality, Privacy, and Security

The use of technology-based therapeutic tools in behavioral health warrants a number of considerations related to confidentiality, privacy, and security. As in traditional clinical scenarios, ethical principles and procedures related to protecting clients' privileged information (confidentiality), protecting clients' rights to control access to their information (privacy), and protecting client data from being accessed without authorization (security) are of paramount importance. However, some unique considerations arise when collecting data and/or delivering interventions using electronic media.

Text-based communications provide a literal transcript of communication between you and your clients (e.g., email, online moderated chat forums) or among groups of clients (e.g., online support groups), but this mode of communication poses certain risks. For example, if a mobile device is used for communicating with a client via text, depending on the settings and device properties, messages stored on the mobile device as well as those sent from the device are likely unencrypted and vulnerable to security threats. Email messages are also usually unsecured and can be accessed by third parties. Even if emails are deleted by both the sender and recipient, they may be preserved by other third parties, such as Internet service providers (ISPs). As mentioned in Exhibit 1.1-1, managing security and confidentiality in TAC is the responsibility of all parties engaged in their use.

A thorough discussion of the broad set of security issues related to the use of mobile devices in the general healthcare environment is beyond the scope of this TIP. The U.S. Food and Drug Administration (FDA) has been issuing guidance as to which sorts of technologies are considered medical devices and which are considered health or medical apps that do not require approval from the FDA as medical devices. In general, apps that pose lower risk to the public will not be required to seek review as medical devices. The FDA (2014) has described some of these low-risk devices as apps that:

- Help people maintain coping skills.
- Alert people with asthma of environmental conditions.
- Prompt users to check on possible drug interactions with food, herbs, or other medications.
- Use videos to motivate patients to do their physical therapy at home.
- Provide information or screening, counseling, and preventive recommendations from well-known and established authorities.
- Enable a clinical conversation to be recorded for review after the visit.
- Allow users to track behaviors related to diets, exercise, and sleep.
- Engage in mind-challenging tests or games.

Apps that may constitute a risk to patients or others if the device fails to work properly require approval as medical devices. For example, certain devices relay heart function data to medical services that monitor a patient's heart function; if such a device provided false information or failed to operate, it could endanger the patient (FDA, Center for Devices and Radiological Health & Center for Biologics Evaluation and Research, 2013).

The HealthIT.gov Web site (http://www.healthit.gov/providers-professionals/your-mobile-device-and-health-information-privacy-and-security), operated by the Office of the National Coordinator (ONC) for Health Information Technology, offers a number of resources for healthcare providers related to using mobile devices in a way that helps protect and secure client health information. Exhibit 1.1-4, adapted

Exhibit 1.1-4: Areas of Concern for Mobile Computing Devices

Area of Concern	Considerations	Threat Level	Threat Type: Privacy (P)/ Security (S)
DEVICE			
Access control	Control over the user authorization process required to access the device	High	P S
Encryption	Technology in place to protect data at rest	High	P S
Updates	How and when the device is updated	Moderate	S
Software vulnerabilities	Weaknesses in the platform and operating system that may allow unauthorized access to the device	Moderate	S
Backups	How, when, and where backups are handled	High	P S
Mobile malware	Viruses and other malicious software that can steal data, capture keystrokes, or perform other compromising actions	Moderate	P S
Remote management	How the device is managed remotely, if at all, including ability to restrict application access or Web access, encrypt data, remotely wipe data, and so on	High	P S
Device-specific issues	Issues specific to mobile computing devices but not other computing platforms, such as inability to truly erase mobile device storage	High	P S
Platform-specific issues	Issues specific to each mobile computing device platform, such as password storage, application backgrounding or suspending, and so forth	Moderate	P S
APPLICATION			
Access control	Control over the user authorization process required to access the application, including session initiation and management and least-privilege access	High	P S
Inappropriate storage	What information the application stores and whether the level and sensitivity of information support local storage	High	P S
Insecure storage	Ensuring that data are stored in an adequately encrypted fashion.	High	P S
Insecure transport	Ensuring that sensitive data transported over the network are encrypted, including usernames and password, management information, and other data; does the application force the use of encrypted technologies?	High	P S
Updates	How and when the application is updated	Moderate	S
Software vulnerabilities	Weaknesses that may allow unauthorized access to the application	Moderate	P S
Backups	How and where backups are handled	High	P S

(Continued on the next page.)

Exhibit 1.1-4: Areas of Concern for Mobile Computing Devices (continued)

Area of Concern	Considerations	Threat Level	Threat Type: Privacy (P)/ Security (S)
Data leakage	Potential for leaking sensitive information, such as user name, device ID, location, and so forth	Low	P
Platform-specific issues	Ways in which the application uses, disables, or works around platform-specific security issues	Moderate	P S
Back-end server	Server security, presence of a firewall, and protection against normal application security flaws like structured query language injection, misconfigurations, and so forth	High	P S

Source: Healthcare Information and Management Systems Society (HIMSS), 2011. Adapted with permission.

from HIMSS (2011), describes considerations to address in the particular uses of an app. For current information on app security issues, refer to the HIMSS Web site (http://www.himss.org).

New information about the regulation of mobile medical apps is rapidly developing. The FDA Web site lists examples of mobile medical apps that it will (http://www.fda.gov/MedicalDevices/DigitalHealth/MobileMedicalApplications/ucm368743.htm) and will not (http://www.fda.gov/MedicalDevices/DigitalHealth/MobileMedicalApplications/ucm388746.htm) seek to regulate. For a detailed overview of the issues related to the regulatory framework emerging for digital medicine, including developments outside of the United States, Elenko, Speier, and Zohar (2015) provide a cogent review and analysis.

In the United States, text-based communications between providers and clients are protected under HIPAA and some state laws that cover protected health information (PHI), but they can be subpoenaed from providers or ISPs. Text-based communications between a counselor and a child or adolescent pose unique risks, as parents typically have a legal right to view their children's medical records—which may include some types of communication (Recupero, 2008). HIPAA does not explicitly address the use of some technologies, such as SMS and cell phones. However, several guidelines regarding clinical use of such technologies are available, including the National Institute on Standards and Technology's guidelines for mobile device security, which address potential security issues that must be managed when using such devices for therapeutic purposes (Jansen & Scarfone, 2008), and the ONC Web site on privacy and security for providers and professionals. For example, the subscriber identity module card on a mobile device stores text messages and identifies users of cell phones to the cell phone network. This raises important questions regarding the physical security of the mobile device, along with the importance of encrypting text messages. Encryption is available for telephone communication as well, although it can be cost prohibitive. VOIPs, which enable phone communication over the Internet, typically allow for more accessible encryption technology.

An option with increased security is the use of secure, Web-based messaging systems that allow providers to email clients with a prompt

to log in to a password-protected Web site to retrieve a message (rather than sending the message through multiple servers, as with normal email). You may wish to set up password protection, automatic logouts, firewalls, audit trails, encryption, and authentication for any programs that you use. Also consider whether to include transcripts of electronic communication with clients in client records.

Online counseling services allow for tracking of clients' Internet protocol addresses. This information does not automatically reveal the exact geographic location of a client, but an ISP may be able to provide such information in an emergency. Large online counseling service providers often use proprietary systems for communicating with clients. These systems may include encrypted chat stream identifiers, storage of text communication with clients, and emergency procedures for locating a client's local hospital or police station (Derrig-Palumbo, 2010), which may help effectively manage several of the confidentiality issues reviewed thus far. Ascertaining the security of technology-based communications between providers and clients is important, given that third parties can potentially access such communication. That said, the largest risks are typically low tech and include sending an email to the wrong address, posting one's password in a place visible to others, forgetting to log off, or using an employer-hosted email server (Sands, 2004).

There are a number of legal considerations related to online counseling models. Interjurisdictional issues (licensure laws and regulations) that apply when practicing across state lines, for example, must be understood. State licensing boards typically require that a practitioner providing services in a different state also has a license to practice in that state. States also vary in their mandatory reporting laws, such as those related to concerns about abuse of and/or harm to self or others. Additionally, you should be aware of ethical standards and guidelines regarding online counseling models provided by professional organizations. You should further be aware that online counseling best practice guidelines may vary with the specific system and tools you use to deliver TAC. As technology and ethical issues continue to evolve, it is important to obtain professional training and certification.

The Distance Certified Counselor

The Center for Credentialing and Education, a subsidiary of the National Board for Certified Counselors, offers a certification called the Distance Certified Counselor, which identifies providers who have met established standards in distance counseling. It is a critical responsibility of clinicians to stay abreast of the evolution of legal issues and best practice guidelines and to implement these in their own work (Maheu, McMenamin, & Pulier, 2013).

Clear policies should dictate the use of various technologies to communicate with clients. Establish your own policies (in compliance with your organization's overarching policies) based on your understanding of the risks and benefits of various approaches and clearly communicate this policy to all clients. Ideally, these policies would differentiate between what constitutes PHI and what does not. Many professional organizations offer standards and guidelines in this arena and may be able to help you formulate your own policies as well.

Policies on the use of communication technologies should address issues such as which technologies providers are willing to use in communicating with their clients, when each technology is and is not appropriate for use, and what the potential risks and benefits of using each technology may be. These policies should also cover the extent to which other

Essential Elements of Informed Consent To Participate in TAC

Services process and alternatives:
- Whether communication will be synchronous or asynchronous
- Response standards and scheduling
- Frequency of interactions
- Misunderstandings (text-based and video-based risks)
- Alternative treatments or delivery approaches

Individuals who may have access to clinical information:
- Other providers on both ends of a Web conferencing exchange
- Technical staff members required to operate or maintain the technology
- Other participants in groups or chats
- Supervisors
- Program evaluators or quality assurance monitors

Potential benefits of the service:
- Access to services
- Privacy
- Reflection time
- Access to specialists and supervisors

Confidentiality of communications and records:
- Confidentiality laws that apply to clinical exchanges using technology
- Legal exceptions that apply to telemental healthcare or telemedicine just as they do to in-person clinical work, including child abuse, elder abuse, medical emergencies, threats of violence, or danger to self, as dictated by state and federal laws

Privacy and privacy risks:
- What is being transmitted, including identifiable images, clinical information, appointment reminders, and billing information
- Form of transmission, including attempts to protect privacy using encryption
- Privacy risks inherent in transmission, such as failures of technology, and unauthorized access to electronic information
- Storage/destruction policies for electronic communications (e.g., text messages, emails)

Roles and credentials of all individuals involved in service delivery:
- Names, roles, and credentials of all providers who participate in clinical care and how the client can confirm credentials (includes providers on both ends of a telemedicine exchange)
- Billing or administrative staff members who may contact clients about administrative issues

Emergency procedures:
- Expectations for response to postings, emails, telephone calls, or text messages
- Contact information and procedures if immediate follow-up is needed
- Emergency/crisis services contact information
- Steps providers may take if concerned about safety of a client

Ways for clients to protect their privacy:
- Controlling access to communications through establishing passwords, deleting cookies, and controlling computer access
- Understanding the risks of sharing email accounts
- Limiting or preventing the provision of identifying information on social media
- Identifying Internet security risks
- Installing virus, spyware, and malware detection software

(Continued on the next page.)

Essential Elements of Informed Consent To Participate in TAC (continued)

Charges and payment:
- What the charges for services are, including email exchanges, telephone calls, and text messages
- How charges will be billed
- What the charges will be for no-shows

Service disruptions:
- Ways to handle service disruptions
- Potential impact of service disruptions on privacy or confidentiality
- Alternative ways to contact the provider

Regulatory agencies and grievances:
- Who regulates the service provided
- What are the internal and external channels and contact information for filing a grievance

staff members in a clinical practice may access technology-based communications with clients. These policies should additionally ensure that clients do not assume that there will be real-time communication with clinicians (e.g., a policy to inform clients that they should not use a technology-based intervention to contact their clinician when in crisis, such as when experiencing suicidal or homicidal ideation, making plans, and/or exhibiting intent). All providers should put their TAC policies in writing and clearly communicate them to clients at the start of the therapeutic relationship using an informed consent agreement. It is also helpful to have clients sign off on these policies to acknowledge that they have reviewed them and agree to comply.

SAMHSA offers confidentiality and health privacy resources (CSAT, 2004c; http://www.samhsa.gov/healthprivacy). For information on providing TAC to veterans, see the planned TIP, *Reintegration-Related Behavioral Health Issues in Veterans and Military Families* [SAMHSA, planned e]).

Informed Consent

Providers of technology-assisted services are bound by the same legal and ethical requirements and standards of practice that apply to in-person service delivery; however, technology introduces some additional risks and benefits that should be covered with participants in technology-assisted services. The risks and considerations vary by type of technology used, as well as the type of service delivered. The box beginning on the previous page outlines some of the more common considerations related to technology-facilitated care.

The Digital Divide and Healthcare Disparities

Although Internet and mobile phone access is rapidly increasing all over the world, some populations may have greater access to these technologies than others. Variables that influence access include rural versus urban locations; socioeconomic status; and various demographic characteristics, such as age. Even with access, some people may not be able to engage in TAC readily due to challenges with technological literacy, health literacy, or reading literacy. Additionally, some technology-based tools and interventions may not be accessible to or perceived as useful by various groups if they don't address individuals' needs in a culturally responsive manner. Clients will benefit from tools that are in the language with which they have the greatest facility.

TAC offers great potential to lessen the digital divide and address healthcare disparities

that exist in many traditional models of care. For example, although White Americans (80 percent) are more likely to use the Internet than African (72 percent) or Hispanic (61 percent) Americans, African Americans are the most active users of the Internet via mobile devices. The rate of increase in the use of mobile devices to access the Internet among minority groups has, since 2007, remained at roughly twice the national average—for example, 141 percent increased use for African Americans versus the 73 percent national average (Horrigan, 2009). By offering interventions on a wide variety of platforms to capitalize on the technology most frequently used by various target populations (e.g., developing interventions for mobile devices for specific minority groups), TAC may offer a new service delivery model that could substantially reduce the healthcare disparities present in many traditional care models (Gibbons, 2007). For examples of the use of TAC with Native American populations, see the planned TIP, *Behavioral Health Services for American Indians and Alaska Natives* (SAMHSA, planned b).

Technology-based therapeutic tools not only offer clinical information and support to diverse audiences, but also provide social and supportive functions that may be absent or inaccessible to certain populations via traditional healthcare systems. Because TAC can provide information tailored and responsive to each individual's level of understanding and needs, this approach can accommodate diverse users with differing cultural needs and varying levels of health, technological, and reading literacies (Gibbons et al., 2011).

Legislation and policy changes may soon promote broadband access and digital competence, reducing the digital divide. On May 28, 2015, the Federal Communications Commission (FCC) received proposed changes to the Lifeline Program, which has existed since the mid-1980s and was originally designed to help people with low incomes pay for phone services; proposed changes would allow the program to support broadband access for low-income individuals (FCC, 2015). Today, households with incomes of $150,000 or above have easy access to broadband services, whereas slightly less than half of households with incomes below $25,000 can access such services; moreover, almost half of low-income families have had to cancel or suspend smartphone services due to costs (FCC, 2015). As of June 2015, drafts of proposed legislation had been introduced to the United States Senate: The Broadband Adoption Act (Senate Bill 1472, 2015) and the Digital Learning Equity Act (Senate Bill 1606, 2015). Passage of such types of legislation and related policy changes may help narrow the digital divide.

Electronic Health Records

Another important consideration in using technology-based therapeutic tools in the behavioral health arena is electronic health records (EHRs), which are also called electronic medical records (EMRs). The terms are often used interchangeably, but an EMR typically refers to an individual's patient record created in a single healthcare setting, whereas an EHR typically collects data cumulatively across healthcare settings. EHRs are part of a larger effort to promote meaningful use of health information technology that improves healthcare and enhances information exchange among healthcare professionals. The Health Information Technology for Economic and Clinical Health Act of 2009 and the Patient Protection and Affordable Care Act of 2010 emphasize the widespread and meaningful use of EHRs, which are intended to improve recordkeeping, outcomes reporting, patient transitions across providers (along with their medical records), and quality of patient care (by increasing communication across providers and reducing medical errors). The three main

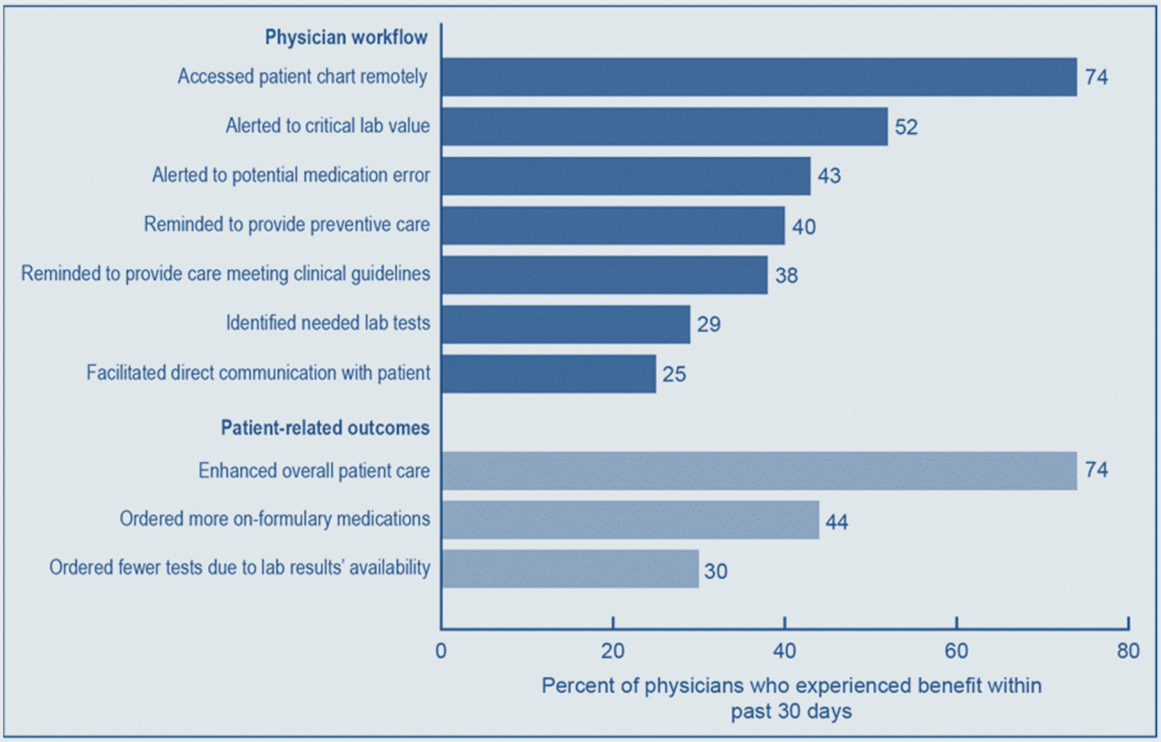
components of meaningful use are the use of a certified EHR in a meaningful manner, the electronic exchange of health information to improve quality of healthcare, and the use of certified EHR technology to submit clinical quality measures and other measures.

Research and development efforts with EHRs are rapidly expanding in the United States and elsewhere. A complete review of EHRs is beyond the scope of this TIP, but the evolution of EHRs and their application in healthcare settings are well characterized in a number of existing resources. The Agency for Healthcare Research and Quality and the ONC for Health Information Technology provide details on EHRs online (http://www.ahrq.gov; http://www.healthit.gov).

EHRs offer considerable promise for collecting data on clients' behavioral health along with other medical issues, which may enhance client-centered care and public health. Limited work to date has focused on the integration of EHRs that include behavioral health data with other technology-based therapeutic tools targeting behavioral health; combining them may markedly influence behavioral health services. For example, Web-based or mobile interventions that collect data as part of screening or assessment activities could code those data in a format that is compatible with EHRs and then interface with EHRs to update relevant information. Such data would provide a richer, more comprehensive picture of clients' behavioral health. Information collected on a client's behavioral health in real time via a mobile application may allow for a better characterization of the client than information collected only during in-person appointments with behavioral health service providers. Such information may enable providers to manage clients' behavioral health more effectively (Exhibit 1.1-5).

At this time, there are no national standards for the collection of data on clients' behavioral

Exhibit 1.1-5: The Benefits of Using an EHR System



Source: Jamoom et al., 2012. Reproduced from material in the public domain.

health, and incompatibility among different types of EHRs impedes the efficient sharing of data. Little research to date has focused on effective strategies for integrating data from technology-based therapeutic tools into EHRs. However, SAMHSA; the National Quality Forum; Health Language, Inc.; and several other groups are working to fill these gaps. For example, several institutes at the National Institutes of Health, in collaboration with the Society of Behavioral Medicine, have launched an initiative to identify common data elements for client-reported measures of behavioral health, which can be used in EHRs (http://www.sbm.org/UserFiles/file/EHR_Meeting_May_2-3-2011-- Executive_Summary.pdf). These common data elements, such as measures of quality of life, eating patterns, substance use, anxiety and depression, and stress, could be used in primary care and public health settings to screen clients for behavioral health risk factors. Doing so could lead to a number of possible benefits, including improved clinical decision making (with greater involvement of clients in shared decisions) and delivery of tailored, brief interventions in these settings.

Emerging research and development efforts will be especially important as behavioral healthcare is increasingly integrated into other healthcare settings and, as a result, is less confined to specialty treatment programs. For example, the 2010 National Drug Control Strategy from the White House Office of National Drug Control Policy (ONDCP) set several goals to integrate treatment for substance use disorders into an array of healthcare settings and not confine such treatment to specialty addiction treatment programs (ONDCP, 2010), and these goals as well as additional goals to increase integration have continued to be part of ONDCP's strategies (ONDCP, 2013). A key strategic action to meet this goal involves expanding addiction treatment into community health centers (CHCs) and other settings that service low-income populations most often in need of treatment for substance use disorders and mental illness. A critical issue will be maintaining the specifications of Title 42, Part 2, of the Code of Federal Regulations, the confidentiality regulations that govern privacy and confidentiality of records related to substance use disorder treatment. Technology-based approaches to assessing clients' behavioral health and evidence-based interventions that are responsive to clients' behavioral health risk factors may enable clinicians to conduct these activities with excellent fidelity and at low cost for broad client bases. The flexibility and ease of use of technology-delivered approaches can promote access to behavioral health services for hard-to-reach populations who use CHCs and other nonspecialty healthcare settings for other medical services. A technological infrastructure allows collection and storage of select client data; this improves coordination of and continuity of care and activity reporting that facilitates service reimbursement.

Technology-based tools are also growing in use in terms of self-help techniques entirely outside of any formal healthcare-related activities. Many health-promoting apps suggest, but do not require, coordination with healthcare professionals. It is too early to tell which technology-based tools may be helpful as stand-alone, wholly self-directed interventions and which may facilitate coordination and cooperation. Whatever the future holds, TAC is especially likely to enhance the capacity of primary care organizations to attend to the behavioral health needs of their clientele.

Concluding Comments

TAC is widely applicable in targeting behavioral health and may be clinically useful across a spectrum of behavioral health and physical health services, including screening,

assessment, prevention, treatment, recovery management, and continuing care. Various electronic media are of use in behavioral health services and enable entirely new models of behavioral health service delivery. This is an exciting time for harnessing technology to increase the quality and reach of effective behavioral health services, but a carefully planned approach for embracing TAC is essential to grant behavioral health service providers and program administrators—as well as their clients—the greatest benefit.

Part 1, Chapter 2

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Introduction

In this chapter, you will meet several counselors who provide technology-assisted care (TAC) to clients who have mental or substance use disorders in various settings, including a student counseling center in a community college; an inpatient co-occurring disorders (CODs) unit in a large city; an Assertive Community Treatment (ACT) team at a community mental health center's (CMHC's) day hospital program; a pretreatment group in a rural area; a community behavioral health agency in a small city; and a CMHC that serves several counties. Each vignette begins by describing the setting, learning objectives, strategies and techniques, and counselor skills and attitudes specific to that vignette. Then a description of the client's situation and current symptoms is given. Each vignette provides counselor–client dialog to facilitate learning, along with:

- **Master clinician notes:** comments from the point of view of an experienced clinician about the strategies used, possible alternative techniques, and insights into what the client or prospective client may be thinking.
- **How-to boxes:** step-by-step information on how to implement a specific intervention.

The master clinician represents the combined experience of the contributors to this Treatment Improvement Protocol (TIP). Master clinician notes assist behavioral health counselors at all levels: beginners, those with some experience, and veteran practitioners. Before using the described techniques, it is your responsibility to determine if you have sufficient training in the skills required to use the techniques and to ensure that you are practicing within the

legal and ethical bounds of your training, certifications, and licenses. It is always helpful to obtain clinical supervision in developing or enhancing clinical skills. For additional information on clinical supervision, see TIP 52, *Clinical Supervision and the Professional Development of the Substance Abuse Counselor* (Center for Substance Abuse Treatment, 2009b). As you are reading, try to imagine yourself throughout the course of each vignette in the role of the counselor. This chapter presents five vignettes, which can be briefly summarized as follows.

Vignette 1: Implementing a Web-Based Prevention, Outreach, and Early Intervention Program for Young Adults. This vignette discusses administrative issues in developing and implementing a Web-based prevention and intervention program and then demonstrates the capability of such a program to meet the stress management needs of a college student.

Vignette 2: Using Computerized Check-In and Monitoring in an Extended Recovery Program. This vignette demonstrates how computerized check-in and monitoring can support recovery for clients with co-occurring substance use disorders and serious mental illness (SMI).

Vignette 3: Conducting a Telephone- and Videoconference-Based Pretreatment Group for Clients With Substance Use Disorders. This vignette demonstrates how to serve clients in a rural area who are on a wait list for treatment by providing a pretreatment group conducted using video and telephone conferencing.

Vignette 4: Incorporating TAC Into Behavioral Health Services for Clients Who Are Hearing Impaired. This vignette describes ways in which TAC can support intake, assessment, referral, treatment, and continuing care for clients who are hearing impaired, a specific group of people for whom technology plays a particularly important role in access to care. Deaf clients and others in the Deaf community may prefer the term "Deaf" over "hearing impaired," and you should adjust the terminology you use accordingly.

Vignette 5: Using Smartphones To Support Recovery for Clients With CODs. This vignette illustrates how mobile phone applications (apps) can be used to help clients with mental illness regulate their emotional responses, enhance the therapeutic alliance (between the client and counselor), and engage in effective coping strategies.

Vignette 1: Implementing a Web-Based Prevention, Outreach, and Early Intervention Program for Young Adults

Overview

This vignette introduces a prevention, outreach, and early intervention program that young adults can access via portable devices, such as smartphones and tablets, as well as via desktop computers. The program delivers intervention content through engaging technologies, including audio, video, text, and other interactive tools. It offers personalized assessments for alcohol, drug, and tobacco use; sexual health and sexually transmitted disease (STD) prevention; stress; nutrition; and other issues young adults may face. The program also offers psychoeducation, goal setting, action planning, cognitive–behavioral therapy (CBT), and skill-building tools. Programs like this one are packaged primarily for colleges and universities, but they can be customized to

meet the needs of any population. This vignette first discusses some of the administrative issues in developing and implementing a Web-based prevention and intervention program; the second part of the vignette demonstrates the capability of such a program to meet the stress management needs of a college student. It then shows how the program might supplement early intervention efforts with an individual who is receiving counseling for a substance use disorder.

Learning Objectives

- Understand how to incorporate online screening tools into a larger program of prevention, screening, and early intervention for behavioral health difficulties.
- Identify individuals who need assistance and support by using an online screening tool for stress management.
- Use computer-assisted technologies to supplement ongoing counseling efforts and to extend traditional treatment services by providing support, education, and specific interventions.
- Become aware of issues that can arise when applying a technologically enriched, broad-based prevention and early intervention program with a specific target population.
- Evaluate the cost effectiveness of prevention and early intervention programs that include computer-assisted technologies.

Setting

John is a counselor in a local behavioral health center; his responsibilities include coordinating mental health and substance use disorder outreach and treatment services for students at the local community college. John and his two colleagues are seeing a significant increase in the number of stress-related requests for services from the student population. His center's resources are limited, so John has begun investigating online, client-driven tools that can be used with college-aged students in hopes of integrating such tools into his center's services. Students can access these resources from their computers or mobile devices. He hopes to be able to identify and appropriately serve three groups of people who may use behavioral health services: those with situational stress reactions, those who are experiencing significant stress and are at risk of more serious problems, and those who need acute care for pressing mental and/or substance use disorders.

In Part 1 of John's story, he searches for appropriate tools and meets with his program director to explore program development and implementation issues. In Part 2, John meets with Amy, a student experiencing significant stress, and helps her use the stress management component of the program to be able to continue in school and manage her school work. In Part 3, a student uses the program as an adjunct to counseling and mutual-help programs to address his drinking problem.

John's Story

Part 1: Providing targeted services

John, a senior counselor and college outreach coordinator for a local behavioral health center, is meeting with his program director, Nancy, to discuss how to provide better and more targeted services to students at the local college.

JOHN: I'm pulling my hair out with all these students coming in. I don't know why they're coming now. Maybe it's because it's the end of the semester, or maybe students have only just now

begun to understand how they can benefit from help. We've just had an onslaught—more than we can really handle.

NANCY: What are the numbers?

JOHN: As you know, just three of us are handling this community college contract, and we've had 10 to 12 new students a week. They're coming in for stress-related issues and substance use. Alcohol problems are on the rise, and we're also seeing a lot more students smoking marijuana. Some of these kids are really under a huge amount of stress, but then again, I don't think others really need intensive services.

NANCY: So what are you thinking would be the best way to handle this increase?

JOHN: Well, I've done a little research, and I found some online resources that look pretty good. One is a comprehensive package for stress management, alcohol and drug use, nutrition, sexual health, and a variety of other topics. In this particular program, the students can go to the program Web site on their own, using a desktop computer, a laptop, a tablet, or even a smartphone. The site does some neat stuff based on education and CBT. There are a lot of cool tools that mirror things we already do clinically with students regarding prevention and relaxation. I wanted to talk with you about maybe integrating the package into our system of care.

NANCY: Do you know of any other college that's using this kind of program?

JOHN: Well, I don't have much spare time, you know? But I did some homework, and it seems like a number of colleges use this particular program. Some of them resemble our college, with an urban location, lots of commuting students, and limited treatment services for substance use and mental disorders. Some require all freshmen to do an orientation to the Web site, but others require that all students participate in just the alcohol and drug use part of the program. It looks like there are some data about the results and some evidence to support its use. I think it's pretty credible. What I like is that it's all contained in one package—just one stop and you'd have a range of resources to meet the variety of significant needs here in the college community.

NANCY: Can we get references from some of these other schools? I'd like to talk to them first. Also, I'm a little concerned about the all-inclusive package; it might be the case that not all elements of the package are high quality. We'll need to check into that.

JOHN: That's a good idea. I'll contact the colleges and talk to some of our colleagues there. I'll ask them about their experience with the program.

NANCY: I'd like to know whether there are other programs or other kinds of options. We could find out what the advantages or disadvantages are with them. I'd also be interested in how they measure success, and if we would measure it in the same way.

Master Clinician Note: Not everything that sounds good is good! Behavioral health service providers and program administrators must always ask questions and critically examine the evidence to determine whether a particular technology works or does what it purports to do. The National Registry of Evidence-Based Programs and Practices (NREPP) may have helped John and Nancy find some clarity as they struggled with these concerns. NREPP is supported by the Substance Abuse and Mental Health Services Administration (SAMHSA) and reviews programs and services that voluntarily seek such review. The NREPP Web site offers information and assistance related to identifying and assessing the evidence-based qualifications of any program (http://nrepp.samhsa.gov). John and Nancy could also decide to collect information about the results of whatever program they decide to use; doing so could help them determine how well the program is working with their population.

Other helpful Web sites include:
http://www.collegedrinkingprevention.gov/NIAAACollegeMaterials/Default.aspx

http://www2.edc.org/cchs/projects.html

http://www.dartblog.com/images/NH%20Alcohol%20Best%20Practices.pdf

JOHN: There are similar tools online that help kids handle stress better and improve their time management abilities, and some have risk reduction programs attached to their substance use packages.

NANCY: I think we'd be better off using what has been tested on other campuses with a similar group of people who have similar problems. Of course, there may also be some new, relatively untested programs that look good too.

JOHN: That makes sense.

NANCY: On the other hand, I know there is a lot of stuff out there already, some of it pretty well documented. I wonder if we can make up our own package, from scratch, to reduce costs.

Characteristics of Digital Comprehensive Assessment Tools

- Use of digital tools saves time and cost; it can also free up clinicians' schedules so that they can focus on other issues.
- Many comprehensive digital assessment tools are evidence based, provide reliable and concise information, and can address a broad range of issues relevant to specific populations, such as college students.
- Reporting features are available in some such tools; these features can assist clinicians in treatment planning.
- Digital assessment tools can reach people in need who are reluctant to access services through traditional delivery methods.
- Such tools can help provide ongoing client assessment.
- Some such tools are available to the consumer 24 hours a day, 7 days a week.
- Using digital assessment tools can provide continuity of care with automated message reminders about appointments, medication reminders, or preventive health facts.

Examples of Outreach, Screening, and Early Intervention Programs for College Students

- **MyStudentBody (http://www.mystudentbody.com):** This Web site contains a suite of online behavioral health interventions targeting risk issues central to young adults, including alcohol and drug use, tobacco use, HIV/STD prevention and sexual health promotion, stress, and nutrition. The interventions are grounded in motivational enhancement and evidence-based behavior change principles.
- **eCHECKUP TO GO (http://www.echeckuptogo.com):** This Web site provides online personal alcohol risk assessment and motivational feedback. In addition, psychoeducational and interactive tools build awareness of the consequences of alcohol use and support social norms.
- **AlcoholEdu (http://www.everfi.com/alcoholedu-for-college):** This online alcohol education program aims to reduce alcohol use and associated risks. It incorporates video, audio, and interactive tools to promote awareness about risky alcohol use and skills to avoid risky drinking.
- **Drinker's Check-Up (http://www.drinkerscheckup.com):** This Web site provides online alcohol risk assessments for individuals. There are three sections to the site: "Looking at your drinking," "Getting feedback," and "Deciding whether or not to change." The instrument is brief and nonjudgmental about alcohol use.

JOHN: Well, that's a choice we'll have to make. We could just find a couple of packages that address stress management and alcohol and drug use and not get into other issues, because there are packages that deal with these two issues specifically. The other option is to go in a more comprehensive direction, but the choices in that direction are more limited, at least right now.

The other thing that I think is important is deciding what level of stress, impairment, or pathology we're going to address. Do we want to take a broad approach, something to introduce all students to various problems and options? Do we want to screen for certain problems like stress, alcohol, and drugs? Do we want to offer options for people with significant situational stress? What about supplemental interventions for students with pretty serious alcohol and drug or mental health problems? Let's clarify our goals first and how we would measure our desired outcomes. That'll bring clarity in choosing a program.

Another issue is the evidence base for these programs. At least one is listed in NREPP (http://nrepp.samhsa.gov), and some of the smaller, less comprehensive packages probably have some research behind them, too. We also want to look at the evidence in the evidence-based program. Is it one small trial or more substantial research that supports the program? There's a lot to think about here.

NANCY: Yeah, there is. Did you find any data to suggest that any of these programs would either cost us more or save us money in the long run?

JOHN: Well, some of the programs definitely have costs involved. Some charge on a per-use basis, others seem to have a yearly subscription, and I would imagine there are some programs you can just buy outright. As for savings, if we can serve more students with the resources we have, then that cuts costs per unit of service. That would help us meet our goals more efficiently. Maybe we can do a pilot program for a year or so with some specific funding to try to understand the program's effectiveness, costs, and benefits.

NANCY: Don't you think this will increase the client flow, rather than reducing it?

JOHN: I'm hoping it'll reduce our workload and increase the client flow at the same time. We'll be screening more effectively by having students do a self-assessment. Students, before they decide to come in to see us in person, can take a computer-assisted self-assessment, learn a little about stress management, and then self-screen for substance use disorders and mental illness. Kids who are really in crisis and need immediate services will be able to bypass that and come right to us. It also lets us free up treatment time by providing online psychoeducational information at different stages in a client's change process.

It would also be more efficient in terms of our staff workload. If young people at lower risk receive education and a brief intervention online, we can spend more of our time on those kids who are struggling with more intransigent issues. The risk profile that the program creates after someone takes the personal risk assessment can be a really helpful reference if the individual does come to see us. It's a good place to start; it shows what he or she has been doing and offers strategies to reduce risks for that person.

NANCY: What about information technology (IT) support? Do we need any other system supports? We also need to think about liability and make sure we are covered there. What happens if the person is suicidal? We'll need a good response plan in place, and we have to make sure we monitor results to look for signs of danger.

JOHN: This particular resource that I looked at, and maybe others out there, actually runs on a server at the company that administers the program, and no software is installed on our system. We're not in charge of making it run. We'll need to make sure that the company we choose has a good tech support team and find out how they support clients. We'd also need to know how fast they respond to problems. The other schools that use these programs could give us a good idea.

NANCY: But I'm sure that counselors will have to provide some tech support to help students who need help accessing the program. We would also need to ensure that our clinical team is adequately trained and feels comfortable using the technology before we roll it out.

JOHN: If we were to recommend this program to students who come into the clinic, we would have to know, for instance, if they have enough bandwidth in their dorm room or at home to run it and access the videos and interactive activities on the Web site. I would also want to check with the IT staff at some other colleges to see if they have the capacity for students to use the program over the college wireless network. Of course, if students access the program on their own time with their own computers or mobile devices off campus, these issues may not be as significant. Regardless, we'll have the clients sign an informed consent form detailing their understanding of the benefits and potential hazards involved in working with us online.

NANCY: Does this program meet the capability requirements that the college recommends for student computer use? We should ensure that all students have access to the same service.

JOHN: I think it would be important to see if they could access it via their mobile devices, because most students have smartphones now. I think they can also access all of the program elements from a desktop or laptop.

NANCY: So what happens? They answer a bunch of questions about their stress and they get recommendations? What happens if they answer yes to all the questions, and they are at very high risk for suicide? How does it work then, when there is no actual person with them?

JOHN: Well, most programs don't assess specifically for suicide. It looks like most of them warn users who are experiencing acute stress or are having suicidal thoughts or behaviors to call an emergency number or hotline like the National Suicide Prevention Lifeline.

NANCY: Is there a message or a warning that says, "If you are experiencing extreme stress or other serious problems and you want to talk to a person live, here's what you should do?"

JOHN: What I really liked about this program is that when you subscribe, you can personalize the resources page to list the local resources in the community, at the community college, and at the health center. If someone is in crisis, they can call the emergency number here at the center.

There's another issue here that I don't want to overlook. Some kids from the college struggle with significant mental health and addiction crises—they're disabled with anxiety, have thought disorders, are depressed, or are drug dependent and scared to seek help. If this program can facilitate their entry into care, then we've provided a great service, and by intervening early, we may help them stabilize and begin recovery rather than getting worse before seeking treatment.

NANCY: You're probably right. Maybe some evaluative research after the program starts can help us track stabilization. How about the issue of confidentiality—we could potentially be collecting a lot of data on a broad spectrum of students. How do these programs control for that?

JOHN: In this particular program, data are stored on a secure server, not on an individual's computer or mobile phone. Each individual has a unique username and password they can use to access the program. There are algorithms behind the data so that individuals receive personalized feedback based on their response profile. There's also an administrative dashboard where administrators can see aggregate data as well as usage patterns.

Issues To Consider in Developing a Web-Based Outreach and Early Intervention Program

- Is the developer well known? Can the developer's references be checked? Does the developer have prior experience developing similar TAC programs? Is the program well supported by the developer?
- Are there empirical data to support that the program works? With which populations does it work? Are there published data? Does the program explicitly use evidence-based principles to guide behavior change?
- Are there a clear plan and resource list for users in significant distress or at high risk for self-harm?
- Is there assurance that all data entered into the system by participants are confidential and encrypted?
- Where will data be hosted, stored, backed up, and maintained?
- How will you obtain participant feedback about the program? How will you use that feedback in program development? Is the feedback aggregated or individual client data?
- Is there an administrative dashboard to monitor aggregate participant responses? Do these aggregate data reflect levels of impairment and actions taken by participants? Do the provided measures reflect the kinds of problems or questions participants have?

NANCY: So we would want to put something on the site about all of the 24-hour resources—hotlines and that sort of thing—that people can use in a crisis. It sounds interesting. Seems like there are a few more steps to take, but I think it's something that we should pursue.

JOHN: I agree. The program I'm thinking about tracks outcomes; we'd know how many students use it. We could ask students to evaluate it to see whether it's helping and what the limitations are. Maybe before we subscribe to the program, we could ask some students to get involved. That would take some of the burden off of us and help us test it to figure out what the best options are and whether they really meet the needs of the students.

After the meeting with Nancy, John researches the questions his administrator raised. He develops a plan that the university and the mental health center accept. They do live interviews with three companies that appear to meet their criteria, test each program, and check references. After analyzing their findings, they choose a program and begin a 1-year trial.

Part 2: Using screening tools to measure stress

This part of the vignette demonstrates how an online screening program can help students self-identify issues and situations in their lives that need attention.

As part of the program initiation, John is doing some trial demonstrations in classes on campus to gather data and establish a baseline stress level for students at his college. Next year, the program will be administered to all incoming freshmen, to at-risk students (students on academic probation, with disciplinary problems, or in violation of the college alcohol and drug use policy), and to any students who self-identify as needing counseling services. In conjunction with his audiovisual presentation, John describes a series of perceived stress situations and poses questions about alcohol and drug use in the past week to the students. He uses polling software to allow students to respond immediately to the questions, and then he reveals the aggregate classroom levels for each question in graphic form. John then invites students to assess where they stand in relation to the group average; some students are experiencing a good bit of stress, and some of these students may be drinking to cope with that stress at times.

He then tells the class that they can use the online program to learn more about stress and how to manage feeling overloaded without having to go to a therapist or counselor right away; he lets them know that they can take a personal assessment, get feedback, learn about stress and how it affects the body, and practice some healthy coping skills (e.g., exercise, meditation, deep breathing, music) to counteract those effects. John makes sure to tell them that, if after trying out the program, or even without reviewing the program, they want to seek professional help, they can visit his clinic or check the program Web site for contact information on other local resources.

After conducting one such classroom presentation, John stays to answer questions. Several students approach him, one of whom is Amy. She is concerned about some of her scores on the stress scale, which are higher than those of her peers. John makes an appointment for her to come to the mental health center so that they can talk in more detail.

JOHN: So Amy, how are you?

AMY: Sorta bad. I'm worried because my score on the stress test that you gave us in class yesterday was in the high range. I know I've been under a lot of pressure, but it worries me that my

scores are so high. I really do think I'm having trouble concentrating. My grades aren't as good as they need to be to keep my scholarship, I'm having trouble sleeping, and the few friends I do have here tell me I'm being grouchy.

JOHN: Well, I'm glad you came in. Is there anything you're worried about?

AMY: I don't know if I'd call it worried. I'm from out of town. I'm here on full scholarship. I'm supposed to maintain a 3.0 grade point average, but last semester, I got a 2.8. So that's not good.

JOHN: Well, what happened?

AMY: The work is really hard, and I'm having trouble focusing. Maybe I just don't belong here.

JOHN: How do you think I could be helpful?

AMY: Fix me!

JOHN: What would that mean—to fix you?

AMY: If I lose my scholarship, I'm in trouble. I really need to get my grades up, so that's really stressing me. Then, on the other hand, because I'm so stressed, I have trouble sleeping, trouble motivating myself to study, trouble with almost everything. *[She begins to tear up.]*

JOHN: So, if I understand correctly, you need to find a way to bring your grades up, and that'll take off a lot of stress? Reducing the stress some will make it easier for you to get your grades up.

AMY: I guess so. I started feeling terrible; now I'm eating more, and I'm 10 pounds heavier than when I got here last fall. I spend so much time studying that I haven't made a lot of friends. Other people go out and have a good time, and I spend most of my time in my dorm room.

JOHN: Things are piling up.

AMY: I'm not sure that this school is the right place for me. But I also don't think I need counseling or therapy. By the time I get ready to come over here, then get back to the dorm, I've wasted at least a couple of hours that I could spend writing a paper or being in the library. I just need to get my grades up.

Advantages and Disadvantages of Using Web-Based Programs in Counseling

Advantages:
- Encourage self-assessment
- Reinforce stress management strategies/plans
- Foster provision of well-developed, clear action plans
- Open additional avenues for noncrisis support

Disadvantages:
- Lack the immediacy of in-person meetings
- Pose potential difficulties with understanding how to use the program
- Provide diagnostics without clear, scheduled follow-up and action plan
- Are contraindicated for work with suicidal, homicidal, or psychotic clients

In gauging the advantages and disadvantages of using Web-based counseling—or, indeed, any given technology in clinical practice—remember that, as always, use of good clinical judgment is imperative.

JOHN: I can understand your feeling that coming here just adds something else to your workload. But would you be willing to check something out? I have an idea about helping you get started on taking some action without having to come over here—something you can do on your own time, if you're willing to explore it.

AMY: Sure! It won't hurt.

JOHN: How are you with technology? Do you go online? Are you on Facebook?

AMY: Sure.

JOHN: Would you be willing to check out a Web site? It's the program I spoke about in class.

AMY: Well, I guess so.

JOHN: The first thing you'll do in the program is log in with a username and password that you devise, so that all of your information is confidential and accessible only to you. Once you're logged into the program, you'll then complete a personal profile that includes questions about your level of stress, the kinds of things that stress you out, and what you currently do to manage stress when you're feeling overloaded. It's a slightly longer version of the questionnaire you took in the classroom. You'll get feedback, tips, and information based on your profile. Then you'll have access to the information, interactive tools, and other activities in the program that you can review in whatever order you wish, whenever you wish. The tools and activities will help you identify triggers for what stresses you out, strengthen your coping skills for managing stress in healthy ways, and learn how to avoid stress, such as through time management strategies and getting good sleep. You can use these tools however you want, and you can add the ones that you find particularly helpful to a personal, interactive action plan that you can develop.

AMY: Can I use my phone to get into the program, or just my laptop?

JOHN: Do you have a smartphone?

AMY: Yeah.

JOHN: Then you can use your phone. Why don't I give you the link to the Web site? You can check it out right now.

AMY: You mean right now, like here in your office?

JOHN: Yes, let's be sure you can access the program. Then we'll take a minute to look over some of the content and see if you have any questions.

How To Encourage Clients To Use, and Continue Using, Web-Based Programs

- Give clear instructions about what to expect from the program and how to access the Web site.
- Demonstrate access and use of the program before the client leaves your office.
- Emphasize confidentiality and protection of private information (e.g., via passwords).
- Use a reminder system, such as text messaging, email, or an electronic calendar.
- Invite clients to report, in and out of the office, their successes and struggles with the program.
- Use secure video conferencing, encrypted email, or secure text messages to highlight client improvements and thereby promote motivation to continue using the program.

AMY: *[Amy accesses the Web site on her cell phone.]* This is pretty cool. There's a lot of stuff here.

JOHN: It's a comprehensive program to help people manage a variety of situations in their lives. I'm particularly interested in you looking into the stress management resources in the program. You can go on there and pick out the ones that you think will best meet your needs.

AMY: I don't know what that means.

JOHN: When you access the program, you'll answer some questions. Then you'll get feedback, just like you did in class earlier in the week. Based on your profile, it will highlight areas for you to check out on the site. I remember that you mentioned time management; this program has some tools to help you with that and also some other stress management techniques, like meditation and mindfulness.

AMY: I'm not really into that new-age stuff.

JOHN: Some people think of it as new-age stuff, but it might be something that you want to check out.

AMY: Is it like stretching?

JOHN: Something like that—stretching your mind.

AMY: That sounds interesting. How does that work?

JOHN: Well, it involves several steps. There are some assessment tools to help you evaluate how you use your time, and the program will give you information about ways to manage your time better. There are even some functions that actually help you make a plan for how you can use your time more effectively. Just go on the Web site and choose the time management and stress management tools you'd like to start with.

AMY: I'm not sure about this, but I'll check it out.

JOHN: Let's check back in a few days. Check out the program, and then we can talk about it.

AMY: But it was a hassle to come here. Is it okay for me to just send you an email or a text?

JOHN: Well, my reservation about that is that email isn't confidential. What if we do this: We have an encrypted email system here at the center, so I'll send you an email through that system right now. Then, when you reply to let me know how things are going in a week or so, that reply email will be encrypted. But be aware that anyone who might have access to your phone or your email will have access to our communication. Are you okay with that?

AMY: Well, not really. Maybe I should just give you a call.

JOHN: Okay, I'll look forward to your call in a few days. Do you have Skype or a similar video conferencing app on your computer?

AMY: Yeah. I use it with my parents every week and call friends back home with it.

JOHN: Great. Just call me, and we can videochat. My email is john@localbhc.com.

AMY: Okay. I like the idea of not having to come here every week. I'll just use the Web site in the next couple of weeks and check in by videochat to let you know how things are going.

JOHN: Sounds good. It was great to meet you, and I look forward to working with you.

AMY: Yeah. Me too.

During the next month, Amy uses the Web site on a number of occasions. She especially benefits from the time management, stress management, and sleep-related components of the program. She and John have two videochats during this month. She assures John that she will call if she begins to experience more distress than she is comfortable handling on her own.

Master Clinician Note: Counselors and administrators should be sure that clients fully understand how their agency's Web-based communications system works so that clients have realistic expectations about counselor availability, how long it may be before they receive responses to messages they send, and how the system is monitored. For example, will clients receive feedback? What are the client's expectations about feedback?

Part 3: Using Web-based interventions to support addiction recovery

Pete is referred to the student counseling center for violating the campus alcohol use policy; campus police found him sleeping in his car in the student parking lot, smelling strongly of alcohol and with an open six-pack of beer on the passenger-side floor of his vehicle. He was referred to the campus alcohol and drug policy office, where he was, in turn, referred to John's behavioral health center for an assessment. The following section of John's vignette details John's first meeting with Pete.

JOHN: Sounds like you have a lot going on, Pete. Do you have an idea of what you want right now?

PETE: I've tried to cut back on my drinking, and sometimes it works, but then I go back to it.

JOHN: What kinds of things have you tried?

PETE: Just willpower. I'll get drunk, then I'll feel terrible and miss class. My girlfriend threatened to break up with me because she said I got out of control one night. I just feel like I have to cut back, but I haven't been very successful doing that. Night before last, I drank a lot and then had to be at class yesterday morning. Between classes I went to the car, just to have a beer to take the edge off, and I guess I went to sleep. I must have been sleeping about 30 minutes when the cops rapped on the window and woke me up.

JOHN: Do you have some concerns about your drinking?

PETE: Yeah, but I've seen celebrity rehabilitation shows on reality TV, and I don't need that. I don't need to be sent away. I've tried Alcoholics Anonymous (AA), and there were some older folks in there who were fanatics. I don't want to be a fanatic about it. I just want to cut back on my drinking.

[John and Pete explore Pete's drinking history. Pete is cooperative in revealing a history of heavy drinking that began about 8 years ago and really became a problem while he was stationed at

remote sites in the Air Force. Since his discharge 6 months ago, he has continued to drink daily. Upon returning to his hometown, he found that most of his old friends had moved on and weren't available. He started community college 3 months ago, but he hasn't really made friends. Mostly, he hangs out in his room at his parents' home or in a local pub, where he has met a few people. He has been dating a woman he met at the orientation session for the community college. He likes her a lot.]

JOHN: Well, let's talk for a few minutes about what you might want to do about your drinking. You say you aren't interested in treatment or in AA.

PETE: No! I don't want to go in front of a bunch of people and talk about my drinking.

[John continues to help Pete explore his options, including AA, other mutual-help programs, and inpatient and outpatient care, but Pete is adamant that he doesn't want community-based services. John assesses and does not find the need for detoxification or acute medical care. Pete must accept the recommendations of the counseling center as a condition of his staying in school, so John does have some clout, but at the same time, he wants Pete to feel ownership of his treatment plan. They settle on a three-pronged approach that includes an 8-week assessment group in which students with campus alcohol or drug infractions evaluate their substance use in a structured educational/discussion group setting at the college counseling center, completion of a Web-based alcohol and drug self-assessment that is part of the Web-based program adopted by the counseling center (along with a brief drug prevention education program that is part of the same package), and attendance at 10 online AA meetings.]

PETE: I have some reservations about this online AA thing. You say I don't have to give my name? All I have to do is go to the site and sign in?

JOHN: That is the beauty of it. You just go to this Web site. It operates similarly to other AA meetings and services. The Web site is http://www.aa-intergroup.org. All you need to do is sign in and then choose whether you want to attend an online meeting via videochat or telephone. The site also has chat rooms, email lists, and discussion forums. There are groups for specific populations, such as military personnel and veterans; people who are hearing impaired; gay,

Evidence-Based Alcohol and Drug Use Prevention Education Programs for College-Aged Populations

Evidence-based online alcohol and drug use prevention education programs for college-aged populations (e.g., MyStudentBody, AlcoholEdu, eCHECKUP TO GO) are grounded in motivational enhancement and social learning theories. Such programs typically include a self-assessment with personalized feedback to build motivation for behavior change and education about the risks of alcohol and drug use to promote accurate risk perceptions. The more comprehensive online programs (i.e., MyStudentBody, AlcoholEdu) also offer audio or video peer stories and interactive tools that foster coping skills for reducing alcohol and drug use and help individuals develop their own action plans for change. Most of the available online programs are subscription based, so that a participating college/university can subscribe for use by their entire student body or by targeted risk populations. For more information, visit:

- http://www.mystudentbody.com
- http://www.everfi.com/alcoholedu-for-college
- http://www.echeckuptogo.com

lesbian, bisexual, and transgendered people; and even groups for specific areas of the country. You have lots of choices. Some meetings are open and can be attended by anyone, regardless of whether they use alcohol or have a drinking problem; other meetings are closed to all but people who have a drinking problem and a desire to quit drinking.

PETE: Does that mean that I have to have a desire to quit drinking totally?

JOHN: Well, I think for your first few meetings, you can be undecided about whether you want to stop totally. Part of the agenda for the next couple of months—the assessment group, the online meetings, and the work on the Web site that we discussed you using—is to help you decide what you need to do.

PETE: I guess I'd be willing to try it. I can't guarantee that I'll want to quit drinking entirely, but I'd be willing to try the treatment plan we've laid out and see what it's like.

JOHN: That seems fair enough.

PETE: There is something I haven't told you—my girlfriend says that I have to do whatever you recommend, or she won't go out with me anymore. I really don't know how much I actually want to do all of this stuff, but I'm willing to do it to keep my girlfriend and to stay in school.

JOHN: So the stakes are high and it might be worth it to take the risk.

PETE: Yeah!

Pete completed all three sections of his treatment plan. He attended an online AA group, which offered a good introduction to how AA works and dispelled some myths Pete had subscribed to about what meetings would be like. No participants were from his area of the country, but in the assessment group, he did meet two other men who attend Young People in AA, an AA group for people ages 16 to 27. He has attended two meetings with them and says he got a lot from attending. His attendance at online AA helped him make the transition to local meetings. He has had no alcohol in 3 weeks now and came to the decision to stop drinking of his own accord. He completed the alcohol and drug use section of the Web-based program and used the summary report of his risk profile and feedback in his work with John. Pete appreciates the ongoing ability to access the program online to reassess his risks and review material to reinforce his action plan for sobriety. Pete also has a friend who was willing to go to AA but did not have a car, so Pete introduced him to online AA, thus expanding his friend's access to AA support and giving Pete the opportunity to experience how helping others can be part of his own recovery.

Online Recovery Support

Online recovery support communities (some specifically for young people), such as AA and Marijuana Anonymous, hold online meetings that allow participation through the telephone or through voice or text chat features on a computer or mobile phone. Reliable online recovery resources include:

- http://www.aa-intergroup.org
- http://www.marijuana-anonymous.org
- http://www.smartrecovery.org
- http://www.facebook.com/youngpeopleinrecovery

Vignette 2: Using Computerized Check-In and Monitoring in an Extended Recovery Program

Overview

This vignette demonstrates how computerized check-in and monitoring can support recovery for clients with co-occurring substance use disorders and SMI. The vignette includes examples of how checking in via a desktop computer, tablet, or mobile phone can benefit both clients and staff members in managing recovery; how to build clients' engagement with the check-in process as part of their recovery plan; how to teach the basics of computer use to clients who are not already computer literate; how computerized check-in can more readily involve hard-to-engage clients in taking responsibility for their recovery; and how to help clients use technology to maintain a connection to treatment resources after formal treatment has been completed. These technologies can be useful in a variety of behavioral health settings to help clients maintain self-management, recognize potential relapse factors, and see long-term progress in recovery.

Learning Objectives

- Identify how a computerized check-in process can be used in behavioral health settings.
- Introduce skills for counselors in educating clients, particularly those who are not computer literate, to the use of computers for check-in and monitoring.
- Address problems that can arise when clients do not check in or are unable to complete the check-in process.
- Demonstrate how to use a computerized check-in process to monitor progress and changes over time for a client in recovery from CODs. The term "co-occurring disorders" indicates that a person has both a substance use disorder and a mental disorder and that neither disorder is caused by the other; both are independent disorders that warrant individual treatment.
- Engage clients in taking responsibility for their recovery process.

Setting

Sondro is completing short-term restabilization in an inpatient CODs unit in a large city. He has been hospitalized on multiple occasions. He typically does well in the hospital and for a short time after release. After that, however, he tends to disappear from treatment, not take prescribed medication, use drugs, and show signs of paranoid thinking, all of which cascades into Sondro ending up homeless, unable to take care of himself, physically ill, and at serious risk for psychological and physical trauma. The staff wants to provide continuity of care that may help Sondro stay on track in his recovery. If unit staff can help him identify early symptoms, intervention may be possible before he gets out of control.

Staff members identify two approaches in care that may help Sondro achieve these goals. First, they recommend a transition from inpatient care to an intensive outpatient day treatment setting. After completing the day program, he will receive intensive support and monitoring by the ACT team at the local CMHC. ACT services are specialized, intensive services that often go beyond the traditional delivery model of care, which can be limited to the client coming into a clinic and having little access to after-hours contact. Some ACTs offer availability 24 hours a day, 7 days a week, for some type of service; many include contacts with clients outside of the clinic setting.

Sondro's various service providers have agreed to a high level of treatment consistency and communication. One unifying element in Sondro's transition through these treatment environments is a computerized check-in process that Sondro will complete daily. The variables monitored by the check-in process are identified in the vignette. A significant benefit of the check-in process is the opportunity for Sondro to participate more actively in his own care and recovery.

Sondro's Story

Part 1: Developing client and counselor collaboration to support recovery

The treatment team wants to coordinate Sondro's care and transitions among the inpatient program, day treatment program, and ACT team services so as to provide ongoing care. Sondro will be attending the day hospital for a month to 6 weeks following his discharge from the inpatient unit for CODs. As in the past, Sondro has had a relatively uneventful inpatient stay. Once he gets back on his medications, regains physical strength, gets clean from cocaine, sleeps better, and feels safer, his paranoid ideation begins to diminish. He begins to engage with other clients; assumes responsibility for taking care of his physical needs; participates in group therapy on the unit; and, in general, appears contented. But the staff knows that when he leaves the hospital, he is at a high risk for relapse. He doesn't consistently take his medications, starts using crack cocaine, and loses his money and housing; particularly once he starts using cocaine, his paranoid ideation begins to manifest. The inpatient staff members, in consultation with the CMHC day hospital program staff and the ACT team, meet with Sondro to develop a comprehensive treatment and recovery plan. An essential part of this plan involves daily completion of a computerized check-in form, which monitors Sondro's functioning.

In this scene, Sondro is meeting with Irene, a nurse on the inpatient unit, and Mark, a member of the ACT team. Sondro has been active in developing his treatment and recovery plan, but he has some reservations about the computerized check-in process.

MARK: Sondro, we are all really excited about you, the inpatient and day hospital, and the ACT team all working together to create a really strong treatment and recovery plan for you this time. We really think this plan will make a difference in your recovery. I understand you have some concerns about using the check-in form, and we want to talk about that with you.

SONDRO: *[after a brief pause]* Yeah, I don't know about that.

MARK: Can you tell us a bit about your concerns?

Situations in Which a Check-In Process Can Be Particularly Beneficial

- Transitions from a higher to a lower level of care (e.g., from inpatient detoxification to an intensive outpatient program [IOP], from residential treatment to a halfway house)
- Periods of obviously increased stress (e.g., loss of domicile or intimate relationship, death of a loved one) with risk of relapse to substance use or exacerbation of mental illness
- Adjustments or alterations of medication for mental or substance use disorders
- Increases in a client's need for motivation and support to continue treatment (feedback on the client's own responses can be very useful)
- Repeated readmissions and difficulties in linking levels of care in recovery
- Introductions of new treatment methods or approaches not familiar to the client

SONDRO: Well, I just don't know about what you want me to do there in the mornings.

> **Master Clinician Note**: Clients who express reservations about a technology-based intervention, as Sondro is doing, may be reacting to a combination of discomfort with using a computer, the introduction of something new into their daily regimen, and a manifestation of symptoms related to substance use or mental illness. For Sondro, part of what drives his reluctance is suspiciousness resulting from his paranoid illness. Staff members have already ensured that Sondro has basic literacy skills to handle questions on the computer screen, but it is worth noting that a lack of basic literacy skills can contribute to client resistance in situations like Sondro's.

MARK: Well, Sondro, why don't we work with you on this to help you get comfortable with the computer? You can try it out every day for the last few days you're here on the unit, and we'll have somebody right there with you in case you have questions. We can also maybe show you the computer you'll be using when you get to the day hospital. Would that take care of some of your concerns?

SONDRO: Well, I don't know.

MARK: I can understand that you have reservations. Is one of those that you worry about who might have access to the information?

SONDRO: Maybe a little.

MARK: I can reassure you that only the treatment team where you are currently in treatment—like right now, you're in the inpatient unit—and I will have access to the information. We do want to know how you're doing, and we especially want to be able to show you how much you're improving over time. The information you enter into the check-in form can tell us that.

SONDRO: So what kind of information does this thing collect?

How To Engage Clients With Automated Check-In Systems

To appeal to clients, there must be some noticeable benefit in the use of any type of automated clinical tool. The following strategies help increase the likelihood that clients will use and benefit from an automated check-in system:

- Encourage the client to tailor the information exchanged to his or her own recovery goals.
- Give something back. The benefits of one-way reporting to a clinician on symptoms may not be obvious. Helpful responses, delivered either in person or via automated messaging, should be tailored to the client's needs and desires.
- Allow the client to practice using the system with a staff member present to assist with the process and answer any questions that arise.
- Be clear and direct about the risks and benefits of participation, and encourage the client to make his or her own choice about participating.
- Engage peers who have found the system useful to help the client acknowledge benefits and practice using the system.
- Overcome equipment-related barriers by providing access to necessary devices, such as mobile phones, tablets, or computers.
- Use motivational interviewing to assess the client's willingness, plans to engage, and perceived obstacles.

MARK: Mostly, it's just information about how you're doing. For instance, we'll ask some questions about whether you're enjoying life, whether you're taking your meds, how your housing situation is going. We'll ask you about whether you're having cravings or feeling shaky about your recovery and whether you're having any symptoms, stuff like that. It takes about 10 minutes to complete, maybe a little longer until you get used to it.

SONDRO: Couldn't you just ask me the questions?

MARK: Well, we could, and we probably will continue to ask you some of them throughout the course of a day. But what we really want to do here is help you figure out where you're at when you feel the most comfortable, so when things start to go haywire, you'll notice, and you can kick up your wellness/recovery action plan. If you want, you can ask us to help you out, too.

There's one other thing that I didn't mention earlier. The questions on the check-in form are customized to you. Everybody who uses the program has the questions written specifically to address their needs. Of course, there are some that are the same for everybody, like, "How do you feel this morning?" But then there will be some questions for you about your housing, because that's been a problem in the past; about your disability money and whether it's secure; about whether you're taking your meds—things that you've said you want help with and worry about.

SONDRO: What if I get the questions wrong?

MARK: There aren't really any right or wrong answers—just your thoughts on how you're doing. And if you need help answering some of the questions, there will be someone available to help you. I think you'll see that it is really pretty easy and gives you time to think every day about how you're doing and what you need for that day.

SONDRO: Uh huh. What if I don't want to do it?

IRENE: Nobody's going to force you to do anything you don't want to do. We do believe this will be helpful, and we think you'll find it helpful, too, as we go along. But you have to give it a try if any of us are going to be able to see whether it works. A person will be there to help you with the computer and with completing the questions when you get to the day hospital.

MARK: So what do you think?

SONDRO: I guess I can give it a try. I'm a little concerned about people collecting data about me on computers.

MARK: I can understand that. Let me assure you that the information is for our staff—the people you know—and the only data are about how you are doing and what you have said you wanted us to help you with. For now, could you and I just give it a trial run? There's a computer here on the unit, right by the nurses' station, just for clients. I want to show you how to log in, access your own check-in form, work a keyboard, what kind of responses you'd put in, and so forth.

SONDRO: I can work a computer. I know how to use a keyboard. Just show me the form.

MARK: Okay, let's do it.

How To Help Clients Overcome Resistance to Computerized Check-Ins

Common points of resistance that clients have to computerized check-in include:

- Reluctance (shame, embarrassment) about using a computer because of a lack of exposure to the technology and training in how to use it.
- Limited reading skills or illiteracy.
- Ambivalence about recovery—about having their craving, substance use, and mental illness symptoms logged for clinicians to see and reflect back to them.
- Annoyance at being made to do something by someone they perceive as more powerful.
- General concern or anxiety about doing something new.
- Fear that the information provided will be used against them.

To overcome resistance to computerized check-in, you can use the same strategies you might use to motivate clients to complete paper check-in forms or other tasks:

- Help clients see the value of check-in so they will want to do it on their own.
- Help clients link progress toward one of their goals with the use of the program.
- Use motivational interviewing skills when starting clients on a new task.
- Work with clients to identify and overcome perceived obstacles to using the program.
- Emphasize the importance of collecting data for clients' well-being.
- Help clients feel like they are part of their own recovery teams by completing check-in.

Mark and Sondro do a trial run on the computer on the inpatient unit. Mark helps Sondro access the program and helps him create a username and password, and then Sondro completes the check-in process without problems. Sondro's username and password are stored by Mark in case Sondro forgets or wants to change them. Mark also emphasizes that Sondro needs to keep his password and user name secure and explains to him how to do so. The questionnaire takes about 12 minutes to complete. He does take some time to read the more detailed questions about drug use and asks Mark about one of the drugs listed (ketamine), saying he isn't familiar with it. Mark also asks Sondro to choose some questions that he would like to include in his check-in form from a list of optional questions. Sondro picks one about attending 12-Step meetings and another about physical exercise, two aspects of his relapse prevention plan that he has struggled to maintain in the past. A sample check-in form is presented in Part 2, Chapter 2, of this TIP.

How To Facilitate Client Computer Access in Treatment Settings

- Create private spaces where clients using computers can't be seen by rest of the client population.
- Provide trained staff members or peers to help troubleshoot.
- Make available written how-to sheets about operating the hardware or accessing support sites.
- Attend to Internet privacy and security standards by installing up-to-date virus, spyware, and malware protections.
- Protect client privacy by setting machines to delete cookies, search histories, and other private information that may otherwise be stored on the computer.
- Provide easily accessible links to support and education sites that you know are reputable.
- Block access to nontreatment sites to ensure that clients spend computer time on treatment-relevant activities rather than personal business (e.g., visiting social media sites).
- Offer basic computer classes taught by volunteers from the community.
- Consider firewall implications when using networked computers for client access to protect against unauthorized access to electronic clinical record systems or other confidential business applications.

Check-In Example

In a psychiatric inpatient and day treatment program in Western Australia, touchscreen access has been provided to clients participating in CBT groups. Clients complete the World Health Organization-5 Well-Being Index, a five-item measure of psychological well-being, each day. Therapists provide clients with a printout graphing their progress compared with expected progress and discuss results with clients in a weekly group. Therapists can use the well-being trend information to discuss treatment progress and realign treatment plans with their clients. An evaluation of the use of the touchscreen check-in demonstrated high levels of staff and client satisfaction with the tool, and client reports indicated that use of the technology increased their discussions with therapists about treatment progress and enhanced their understanding of their progress.

Source: Newnham, Doyle, Sng, Hooke, & Page, 2012.

Sondro completes his inpatient stay without incident, filling out the check-in form each morning after breakfast. On the last two days of his inpatient stay, he works with a case manager to make the transition to a group home, where he will live for 3 months. After his stay in the group home, he will move to permanent supportive housing. Despite some distress about transitioning to the group home, he is compliant and shows no resistance in leaving the unit.

Part 2: Service provider collaboration

Mark meets Audrey, Sondro's primary counselor on the CODs day hospital unit. Audrey is not familiar with the check-in process and has questions about its efficacy.

MARK: Audrey, thank you for meeting with me today. I've gotten permission from Sondro to talk to you. I want to explain a little about the ACT team. Do you know what it is?

AUDREY: Well, we've worked with ACT teams before, but primarily as a referral resource when people leave the day hospital unit, so could you fill me in a bit?

MARK: Sure. ACT stands for assertive community treatment. It's a treatment approach that uses interdisciplinary staff members to provide community-based treatment and daily contact with clients, including services after hours. The team provides direct interventions to maintain stability of housing and entitlements and supports client compliance with prescribed medication regimens. When clients begin to relapse to drug use or mental illness, the team provides assertive treatment to reengage the client in recovery-oriented activities and family or peer support systems. Our ACT team is assigned to Sondro. I'm the case coordinator, but I want to emphasize that everyone on the team will be involved with Sondro's recovery. We'd like to work closely with you and your program to ensure that Sondro gets the best care possible from all of us.

Master Clinician Note: The privacy and confidentiality standards and regulations that typically apply to behavioral health services, including Title 42, Part 2, of the Code of Federal Regulations (CFR), Confidentiality of Alcohol and Drug Abuse Patient Records and the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule, also apply to electronic exchanges. As with any exchange of health records that are subject to 42 CFR Part 2, clients must provide written consent to share information across providers. Many states have laws that require consent for sharing information related to mental health. Offering clear, simple descriptions of the ways confidential information will be exchanged and providing a rationale for the exchange, along with an explanation of the risks and benefits associated with electronic information exchange, will help clients make informed choices about how their information is shared across providers and organizations. Providers must ensure that transmission of protected health and other confidential information is completed securely. See Part 2, Chapter 1, for more information on secure email and Web access.

AUDREY: That sounds great, and I look forward to working with you. Will you be involved with Sondro while he's here in the day hospital?

MARK: On an as-needed basis, yes. We want to collaborate on his care so that the transitions can be smooth and less traumatic. In addition to communicating with you and your staff, we also want to use a new tool that we think is especially useful for clients like Sondro, who in early recovery are particularly susceptible to relapse because of the combination of substance use and mental disorders. We have this computer-based program that'll help all of us facilitate Sondro's care. We don't want Sondro to disappear and then find out after a couple of days that he's begun using again or has been staying in a crack house. We want to find out early when he starts to lose momentum in terms of his recovery. The things that this program will track are the same things that you pay attention to: his participation in meetings, what his abstinence looks like, whether he's accessing intensive outpatient services and coming on time, how connected he is. It also tracks things that we look at in terms of mental health. Is he taking his medication? Is he having troublesome symptoms? Are the symptoms getting better or worse? You have a client computer that he can use here on the first floor, and every day, he'll check in. It allows us to go to the Web site and see how he's doing. This means that at the beginning of each day, even if we haven't asked about those things, we'll know how he's doing because the information will all be there. And there's another section of this site that will allow you and me to coordinate his care and communicate with one another.

AUDREY: Do you think he's actually going to tell the truth if he starts using drugs again?

MARK: We won't know for sure that he is telling the truth about every detail. But we'll also have some objective data in the mix—for instance, he is either using the check-in process or he is not. And we'll know if he checks in and says he is going to treatment, but you haven't seen him there. Then I'll know that, too, and I'll send someone on the team out to find him and offer him support.

Master Clinician Note: In general, studies of computer-assisted self-interview instruments demonstrate that clients are sometimes more forthcoming about sensitive, embarrassing, or shameful information when disclosing to a computer program than they are during in-person interviews (Islam et al., 2012; Richens et al., 2010). Web-based daily completion of check-in forms build on these studies by providing clients an opportunity to check in without talking directly to providers. A daily check-in process also provides a structure for collaboration between the client and the provider and a way for the client to be more actively engaged in recovery.

AUDREY: I don't see how this is any different from what I get from him every day. I see whether he is there, I analyze his urine screens, I observe his participation and see when he's getting upset. It isn't too hard to tell when people are getting sick again. Frankly, it just seems like another kind of paperwork.

MARK: I can see how it would appear that way, and no, we don't want to add to your workload. In fact, we think it will actually reduce it, eventually. This is a little more work on the front end; it's a change in routine as we're introducing a new treatment modality. The good news is that you can use the information from the check-in form in your clinical record keeping and reduce some of your charting. But more importantly, it's an opportunity for Sondro to participate in his recovery. Here's a printout of the check-in form we use. It's pretty comprehensive and, at the same time, pretty quick to complete. Your role in Sondro's care is still of the utmost importance, and your clinical judgment in determining how Sondro is doing will never be replaced. This is simply a tool to allow Sondro to play a greater role in his recovery and assist him with recognizing the warning signs that may indicate potential difficulties in his recovery.

Master Clinician Note: To support the client in repeatedly filling out the check-in form over time, the form must be relatively brief in length, take only a few minutes to fill out, and be meaningful to the client to sustain the motivation to complete it each day. The goal is to identify a few questions that are meaningful and important to both the client and the provider.

AUDREY: So I just have to pay attention to whether something is going wrong. What do we do when the data indicate that Sondro is headed for problems?

MARK: Well, first, we'll compare notes and get a better picture of what's happening. We can then talk with Sondro about our concerns and modify the treatment plan to better address the situation at hand. Our broad treatment goals for Sondro will always be to support his recovery from his substance use disorder; manage his mental illness; and help him maintain adequate family, housing, health, financial, social, and other supports that he needs to make it in the

Alternative Approaches for Conducting Check-Ins

- Voicemail or interactive voice response systems
- Mobile phone applications
- Secure Web-enabled tablets or personal computers
- Structured email
- Paper and pencil checklists entered into a computer tracking system

community. We both know it's going to be a long haul for Sondro, but I think the computer-assisted check-in process will be a great boost to him, especially in his early recovery.

AUDREY: Are any of the questions on this check-in form going to be about his drug use?

MARK: Yes, he will be asked about things like cravings, slips, getting to his meetings outside of his IOP, if he is having any troubles there—for instance, with other clients, because you won't always be around to monitor him. Also, we can customize the form to include information specific to your program, information you particularly would like to have. In fact, we asked Sondro to identify the relapse risk factors that were most important to him, and he identified attending meetings and participating in his exercise group as areas he would like to track. The data the check-in form collects can help him see the connections between his symptoms and his behavior.

> **Master Clinician Note:** The ability to customize the check-in form creates clinician buy-in by meeting the needs of their programs and also produces client buy-in, as clients can add items they identify as important metrics of their own recovery. Initially, it is helpful to ensure that support staff members also understand the program, can adequately answer client questions, and are supportive of their clients' use of the program.

AUDREY: Well, it sounds interesting.

MARK: Good. I don't want to lose sight of one of the things I consider most important. In terms of his recovery, this is a proactive act on Sondro's part every morning. He takes a greater stake in his recovery by completing this form. It's one more step in involving him in his own recovery.

AUDREY: You're right, and I'm willing to give it a shot. Maybe Sondro's case is a good one with which to try this out.

Part 3: Maintaining the recovery connection after IOP completion

Sondro is doing well, staying abstinent, taking his meds regularly, and has seen the ACT team psychiatrist at the CMHC for a medication check. His stay in the IOP was extended by 2 weeks to give him more time to stabilize. His contact with the ACT team has been primarily to support his IOP stay and to help him make adjustments in the community. The team is working with a local housing agency to help Sondro obtain permanent supportive housing in the community. In the meantime, he continues to live in the group home. He has regularly attended sessions at the IOP with only a couple of setbacks that were subsequently resolved. One occurred during a week when Audrey went on vacation; Sondro became suspicious and upset with the counselor who was leading the group for that week. The other occurred when Sondro got angry at another client in the group and refused to come back to the group for 2 days. With help from Audrey, he relented and reengaged with the group. After the first week of practice, completing his check-in form became a regular part of his day, and he reported that he actually enjoyed letting people know how he was doing. He felt proud to be able to report his progress and knew that both Mark and Audrey were aware of his reports. On a couple of occasions, Audrey used information provided by the check-in process as part of her ongoing monitoring and to give feedback to Sondro about his progress. Together, they charted trends and positive changes that Sondro had made.

Part 4: Sondro graduates from the IOP

Sondro has graduated and will not have day-to-day contact with the IOP staff any longer. Mark meets with Audrey about the recovery plan the IOP developed with Sondro, which includes checking in daily. Mark also introduces the idea of sending text message reminders to Sondro. These may be particularly important once he leaves the group home to enter permanent supportive housing in the community. Audrey will not be as involved because Sondro is no longer in her program. After a few months, if Sondro is doing well, the frequency of the Web-based check-in process can be reduced, but for now, the staff members of both programs think that sticking with the current frequency is best so as not to introduce another change in Sondro's life.

MARK: Sondro has graduated from your program and seems to be doing really well. Is that your impression, too?

AUDREY: I'm really happy for him. He has done well. He's still at high risk, and in just 24 hours, he can go right off the edge, but he'll be in our once-a-week continuing care group. If we see him getting shaky in his abstinence, we'll address that. If I think he is showing significant symptoms of mental illness, I'll call the ACT team. We can't enforce his attendance, but we expect that he will continue. He's been going to the Double Trouble in Recovery group that meets here every day, too, and we hope he will continue that, so we're really happy with his outcome. I have to say that I'm impressed at the data that we got back from the check-in process. We were really surprised. I didn't have much belief that it would make a difference, but it was nice for me to be able to get a quick picture, in a matter of minutes, of Sondro's functioning in a broad sense. I think the messages that appeared when he logged on to the system really helped him see that we were looking at the information and recognizing his positive progress.

> **Master Clinician Note:** Double Trouble in Recovery is a 12-Step program for people with CODs. It is based on the 12 Steps and 12 Traditions of AA. Other programs, such as Dual Recovery Anonymous, may also be available in your area. Sometimes, the term "double trouble" is used to indicate that someone has a substance use disorder and also has a process addiction, or that someone participates in multiple 12-Step programs.

MARK: We'll still be monitoring and reinforcing his progress by having him check in. There could be a shift to a smartphone for the morning check-in process as he moves out into the community, but it will function in the same way as the desktop here at your program. Right now, the cost of a smartphone might be prohibitive for him, but in the future, the cost may come down. I'm also happy that he's willing to go to your continuing care and the Double Trouble group. I think we'll build in some reminders on the morning check-in process for Sondro about attending those meetings.

AUDREY: He's supposed to be going every day. Often, we find that he has trouble bonding in those groups, but we're going to support him in doing that. He seems happy there so far. I'm going to report to our administrator that we ought to do this check-in process for all our clients.

[Later, Mark meets with Sondro after his graduation ceremony from the day hospital program.]

MARK: So, Sondro, things seem to be working out fine. You're doing a great job.

SONDRO: Thank you.

MARK: You've had trouble for many years, and this time you really walked the walk. You're maintaining your abstinence, going to your outpatient treatment, taking your meds so the symptoms don't get in your way, and working on your physical health by participating in a walking group to get some exercise. I think you have a lot to be proud about.

SONDRO: That computer thing, it's pretty cool. It's not too hard and I like the color bars. When it's all green, I feel good. I like that when I finish, if I'm doing well, the bar turns green, and if I'm having a few troubles, it turns yellow. I haven't had but a few days where the bar was red, meaning I'm in big trouble.

MARK: That's the idea—for you to be in charge of your recovery. Checking in is one part of that, just like being in charge of keeping appointments, taking your meds, and being aware of times when you might need additional help. Audrey told me you now have a cell phone.

SONDRO: I do, but I'm worried that people can find me too easy.

MARK: Well, you don't mind us finding you, I hope.

SONDRO: No, you're okay.

MARK: Do you have text messaging on your phone?

SONDRO: Sure, but I don't know how to use it.

MARK: Well, if we show you how to receive your messages, how would you feel if we sent you text messages now and then—just little reminders? They'll help you stay on track. Do you think that might be helpful?

SONDRO: Well, if it's from you, I'm okay with that.

How To Talk With Clients About Using Technology in Their Care

Discussing the risks and benefits of using technology differs little from other discussions about changes to the treatment plan. Here are a few tips:

- Be honest. Don't oversell either the risks or the benefits associated with using technology. Discuss the ways the technology may be helpful and the risks associated with using technology as a tool.
- Honor and support client preferences. Ultimately, each client must decide whether to participate. It is a sign of recovery to make informed decisions about one's own life and treatment.
- Use change sampling. Allow clients to agree to a short trial of at least one aspect of a given technology-based tool or intervention, followed by a discussion of the experience and a renegotiation of consent to participate. It is helpful to demonstrate the use of the technology and then have clients try it in your presence to ensure that they are able to use it appropriately.
- Enlist peers. Other clients or past clients who have successfully used the technology can be effective champions and provide clear and honest feedback about the ways it helped or hindered their recovery experiences.
- Give back. No one likes to spend time doing something that has no personal payoff. Help clients identify the ways the technology might help them. If the benefit to clients is distant, find ways to enhance the incentives to participate.

How To Design Supportive Messages

Having a collection of brief messages to reinforce recovery can provide a quick and efficient way to help sustain motivation:

- Ask clients to help design and select the messages that are important to them.
- Tailor messages slightly to the circumstances of the client; for example, if you know that a specific holiday is hard for a client, send a message on that day or a few days prior, acknowledging the challenges and giving a tip for dealing with stress.
- Phrase messages positively—emphasize what can be done, rather than what should be avoided.
- Use peer support staff or peer counselors to send messages. These individuals can have a different type of credibility than professional staff members.

MARK: We'll send you text message reminders about ways to keep progressing and to give you a little push now and again. The messages won't include anything really personal; they'll just be reminders to do things or positive messages about your progress. We'll help you remember to take your meds, and we can text you as many times a day as you want. Does that sound reasonable?

SONDRO: Sure.

Master Clinician Note: Consider fine-tuning text messages for anniversaries, particularly those of stressful events, or to serve as reminders of specific appointments. Sending messages at a particular time of day or week to correspond to client needs can be helpful. If clients will regularly receive texts from you, you should be aware of their cellular plan costs for text messaging so that costs do not become burdensome.

MARK: We could send the text message at the times when you need it the most. What time of day is most difficult for you?

SONDRO: Six o'clock can be pretty tough. I have to be careful around then.

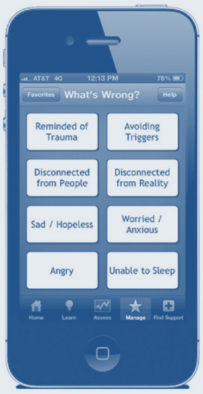
MARK: Well then, we will send your messages at six o'clock. Could you give me your phone number?

SONDRO: I could do that.

MARK: I'll check in with you to find out whether you think this is helpful. If it's not helpful, we can talk about it and stop if you want, or change it up to be more helpful.

SONDRO: What about the computer thing? The thing I do every morning.

Multiple Uses of Smartphone Apps



Kuhn et al. (2014) conducted a preliminary evaluation of PTSD Coach. Their focus groups with users/clients revealed the many ways in which the app was found to be helpful—learning about symptoms, managing symptoms, tracking symptoms, feeling one could do something about one's own posttraumatic stress disorder (PTSD), knowing when the symptoms were better or worse, accessing resources, overcoming prejudice and myths, providing a way to talk about experiences, and so forth. Clinicians and clients should consider all the possible ways to use apps.

Master Clinician Note: Text messages are rarely secure or encrypted. Anyone with access to the client's cell phone can easily access his or her text messages. Even after they are erased, they may be accessible on the subscriber identity module card in the phone. Thus, if counselors use text messaging for reminders, support, or other purposes, they might want to keep messages vague and not reveal personal data. The client needs to provide specific informed consent related to the specific benefits and hazards of participating in online care. That said, the use of encrypted and secure communications as part of electronic health record (EHR) systems is growing rapidly. See Exhibit 1.2-1 for a research example.

MARK: I think you should keep doing it for a while, because you're going through a big change now. Maybe soon we can arrange for you to do it from your phone instead. Would that be okay?

SONDRO: I like the computer thing. I like checking in every day.

MARK: You can use it every day for as long as you feel you need to.

SONDRO: Let's keep it like it is for now. I don't like change a lot.

MARK: Sounds good. Sondro, I just want you to know how proud we are of you and your accomplishments. You are really doing well. Keep up that good work.

Exhibit 1.2-1: Randomized Trial of Depression Follow-Up Care via Online Messaging

Simon and colleagues (2011) used their medical record system's capabilities to track prescriptions, make lab results viewable by clients, and allow clients to register for online messaging. They then compared the online messaging approach with usual primary care follow-up for clients who recently filled a new prescription for an antidepressant associated with a diagnosis of certain depressive disorders. Results showed the promise of such programs for increasing compliance and improving the rate of client satisfaction with depression treatment. The authors constructed automated online responses even for complex situations. For example, the suggested online response that follows is for use with clients who have reported, through online questioning, currently having few symptoms of depression and taking their medication but experiencing moderate or severe side effects.

"It seems that you are not having significant symptoms of depression now. But the medication is causing significant side effects. Do you think you can keep taking [it] a while to see if the side effects get better? Or do we need to talk with your doctor about trying some other treatment?" (p. 700).

The text message above can be customized for each client by the care manager (in this case, an experienced registered nurse with an added certification in psychiatry) based on information in the client's medical record as well as prior text messages exchanged. Each suggested online text message response is coupled with advice to providers regarding follow-up communication (in the above case, to "await response from patient. If side effects not tolerable, contact physician regarding need for alternative treatment. If tolerable, re-assess at next monitoring point," p. 700). Client monitoring and text-based communications are embedded into an overall program, including necessary informed consents, training, and supervision. For more information, see Part 3, Section 1, of this TIP (the online-only literature review).

Source: Simon et al., 2011.

Vignette 3: Conducting a Telephone- and Videoconference-Based Pretreatment Group for Clients With Substance Use Disorders

Overview

This vignette demonstrates how clients in a rural area who are on a wait list for treatment can be served by a pretreatment group conducted through video and telephone conferencing. Behavioral health programs in rural areas present some specific and unique challenges for service delivery. One of these challenges is limited access to care because of a widely dispersed population, geographic obstacles such as mountain ranges, travel expenses, accessibility of transportation, and frequent inclement weather. It is common in rural areas for clients to have to travel more than 100 miles to receive services. To address this issue, many programs have instituted a variety of telemental health services, using telephone, video conferencing, email, Web-based check-ups, and educational supports. Telehealth can be used for clients who are currently on wait lists and also as a primary tool. For example, Alaskan Native remote villages use telehealth as a primary healthcare tool; often, individuals go to the clinic in the village to access telehealth services delivered by a health aide or nurse.

Another issue facing many smaller programs in rural areas with a dispersed population is the wait time between when a client makes a decision to access help and when treatment services actually begin. This can range from just a few days to more than a month, depending on such issues as transportation, child care, employment, and an available treatment slot in either residential or outpatient services. In response, some programs have developed pretreatment groups conducted via telephone and/or video conferencing. Clients waiting to enter treatment are encouraged to use the group until other program services are available. This vignette depicts a pretreatment group that uses video conferencing on a secure network along with traditional telephone service.

Learning Objectives

- Identify circumstances in which telephone and video conferencing groups may be useful means of providing treatment and support for behavioral health concerns.
- Demonstrate skills in establishing and maintaining a supportive environment in telephone and video conferencing groups.
- Illustrate strategies for preventing or overcoming technological challenges when planning or facilitating telephone and video conferencing groups.
- Develop knowledge of the primary privacy, confidentiality, and anonymity concerns inherent in telephone and video conferencing groups, and learn strategies to minimize them.

Setting

Harry is a recovery coach assigned to lead a group that meets twice weekly at noon. He is fairly new on the job, but he has experience working in a group home where he ran groups before becoming a recovery coach. He was cofacilitator of the group for a month before taking over the leadership role, and Harry has now been leading the group for 3 weeks.

The first scene is a meeting between Harry and his clinical supervisor, Joanne. They go over the agenda for the group and the list of clients who will be participating. Joanne offers supportive advice on managing some issues that may arise in the group. The second scene is a group meeting attended by five clients. In this session, Harry uses an icebreaker that invites too much discussion and raises issues that cannot be addressed in the group. He also has to deal with a client who may be intoxicated. Prior to the next group, Harry checks in with Joanne and gets additional support and information. They specifically prepare for one client situation that may present a problem for the group. In the second group meeting, Harry must address a confidentiality issue.

Harry's Story

Part 1: Meeting with a supervisor

Harry meets with his supervisor, Joanne, shortly before meeting with the group. He and Joanne cover some of the basic objectives of the group, the group format, the ground rules for participants, and concerns Harry has. Joanne, who has experience with telephone-based and video conference-based counseling, works with Harry to help him manage any glitches that might arise.

HARRY: I think I'm pretty well set up for the group today at noon. We have five participants.

Dee, who is in her third week in the group, is trying to arrange child care for when she's in intensive outpatient care. The problem is that her husband is a truck driver and on the road for up to 2 weeks at a time. In the meantime, she is attending online AA meetings, has a sponsor, and is going to two AA meetings a week in her community. She's been clean now for three and a half weeks. I'm concerned about her losing her motivation for treatment. She uses her computer to access our video conferencing system to attend the group.

Bobby—he's 26 years old—was arrested about a month ago for driving under the influence of substances, did 25 days in jail, and is now out on the condition from the court that he enrolls in treatment. He was in the center last week for assessment and is third on the list for an inpatient bed. It's going to be tough for him to stay sober outside. He lives way out in the country with his parents, and what's keeping him sober right now is basically having no driver's license and no way to get booze. He accesses our services via telephone through our secure video conferencing network.

Gene first connected with our program about a year ago and has a long history of pain pill addiction and alcohol and marijuana use. He is a disabled veteran but comes to our center because the closest service center available through the U.S. Department of Veterans Affairs (VA) is so far away. Lately, he's really been struggling. We have him scheduled for our ongoing recovery group. He only lives about an hour away and thinks he can make it for the weekly group. He's accessing the group through the video conferencing system.

This will be Mary's first group. She was just in yesterday. She's a widow—her husband died a couple of years ago, and she manages a ranch that she and her husband owned. The kids are all grown and have moved away, but they've gotten increasingly more concerned that their mother is getting drunk every night. Last week, she was drunk and called her daughter, who lives in Minneapolis, and started talking about not being able to go on, and how the ranch was too much, and how much she missed her husband. She scared the daylights out of her daughter, so the kids all came in last weekend and did their own version of an intervention. The youngest son, who's on break from

college this month, is staying with her for now and brought her to the center yesterday. She'll start in the IOP next Monday. We also have her scheduled for a mental health consultation next week to get a measure on her depression. She's never used video conferencing before, but her son will set it up for her on his laptop and get her started.

That leaves Morris, who only attends the group about half the time. I'm assuming that when he doesn't, he's drinking. At least, that usually seems to be the case. Morris just really resists treatment, but is amenable to at least participating in the group and staying connected to us that way. He calls in via telephone through our secure network. He lives here in town and would probably be a good candidate for our IOP. Every time we get him in, though, he finds a way to sabotage it. He pretty clearly has some mental health issues, maybe involving PTSD, that scare him away from treatment. Our goal is just to stay connected with him and maybe help him move from precontemplation/contemplation to actually getting in treatment. But, if we push, he just runs away.

JOANNE: Well, what an interesting group of people. Pretty diverse. But, you know, all of these folks are going to get some help today because of our video and telephone outreach. Otherwise, they wouldn't keep in contact with us, and we'd have no sense of how they were doing. This is a valuable program. It not only offers people some immediate help, but also keeps them connected to us until they can enter more formal treatment.

So, you're comfortable with the format? Two people are going to be telephoning in; three will be on video. The group lasts about 45 to 50 minutes, sometimes a little longer. We're not doing treatment, just preparing people for treatment—helping them maintain momentum, providing some education. Many of the folks in these groups have recently moved from precontemplation to contemplation, or from contemplation to preparation, and we want to help them hold on to their new outlook and goals.

Everyone will be connecting through our secure and encrypted video conferencing network. They know that they'll hear and not see each other, but that you'll be able to see all of the folks that are accessing via video, and, of course, the ones with video can see you. Each participant will have signed an informed consent form prior to joining the group, which can be done in person or through an online document signature system.

HARRY: I've had something of a problem with clients interrupting each other. It's not my style to be too directive, but I've learned to call on folks who aren't saying much and, on a couple of occasions, I've had to ask someone to wait until another person finishes talking. It seems like, for most people, after a while they learn to pause until there is a break in the conversation.

JOANNE: I think it's easier when all clients can see each other, as it is in our long-term recovery video group. But here, for confidentiality reasons, clients only see an avatar of other clients.

Master Clinician Note: An avatar is an icon, picture, character, or graphic that represents a person's online identity. Using an avatar allows a person to portray an online identity without revealing their real image. In most situations, the counselor can see each client via the video feed, and each client can see the counselor, but clients do not see actual images or video feeds of the other participants.

Comparison of Use of Telephone Versus Video Conferencing

Telephone

Advantages

- Convenient for clients, especially when transportation or childcare barriers exist
- Enhanced privacy and/or anonymity for clients compared with in-person or video formats
- Low cost to clients and organizations
- No Internet connection, cameras, or other special equipment needed
- Minimal training on equipment required for clients and staff members
- Less potential for technical problems (no video issues)
- Can be used to expand treatment capacity at a low cost
- Allows for convening clients with similar problems who are spread over a large geographic area

Disadvantages

- Lack of visual cues can inhibit communication
- May be experienced by clients and staff members as less personal than in-person or video interactions
- Dropped calls, poor audio, and lack of security if using mobile phones or, to a lesser degree, land lines
- Inability to see environment where client is participating (e.g., whether there are distractions, others present)
- Leader needs special skills in engagement, keeping clients involved, and making sure all clients participate

Video

Advantages

- Convenient for clients, especially when transportation or childcare barriers exist
- Provides clinicians with more visual cues to judge the condition of clients and ensure successful communication
- Expands treatment capacity at a low cost
- Some clients are more comfortable initially with the degree of separation provided by video conferencing over in-person contact
- Allows for convening clients with similar problems who are spread over a large geographic area
- Saves clients the cost and time of travel and opens up opportunities for clinicians to work from home or remote locations

Disadvantages

- Requires that clinician and clients have some technical resources and knowledge
- Requires Internet connection, cameras, and special equipment for clinicians and clients; creates more opportunities for technical glitches
- May be experienced by clients and clinicians as less personal than in-person encounters

JOANNE: Now, the usual flow of the group is that you begin with a check-in and maybe give people an icebreaker, just to help them get started. I think the one you used last Thursday was great: "The best thing that has happened to me today is…" You want to just get a feel for how people are doing, whether there are any crises and special problems that need to be addressed. Of course, if the problem is unique to them, or serious, you'll want to let the person know you'll be following up with them after the group ends. Early on, you want to get everyone engaged in the discussion. I also find it useful to go over the ground rules quickly with every group.

HARRY: In the other groups I've run, I've found it's best to let the initial interaction run for maybe 10 to 15 minutes. By then, I'll have a feel for how people are doing and whether there are any pressing needs. I will have been able to invite quieter people to get involved and to set the

Ground Rules for Pretreatment Telephone or Video Groups

Most of the rules applying to in-person groups are also important in telephone and video conferencing groups; however, some issues become magnified when group members are dispersed. The following rules help minimize issues that can arise in telephone and video conferencing groups:

- One person talks at a time.
- For conference calls, callers say their names before they speak, because callers might not recognize each other's voices.
- Everyone has an opportunity to talk.
- Everyone should minimize noise and other distractions during the group and use the mute button if needed.
- No one other than the group members and leader should be viewing or listening in unless they have permission from the group leader and the group is aware that someone else is participating.
- Participants are encouraged to control disclosure of their identities to others in the group by using only first names and avatars rather than their real likenesses or surnames.
- Indepth or highly sensitive discussions between clinicians and clients should be scheduled outside the group setting.
- The same group rules related to respect, honesty, and confidentiality used in in-person groups also apply to video and telephone groups.

tone for the session. Then, for the educational part of the group, Willie, from the IOP, is going to come in and talk a bit about that program and how it operates.

As you know, Willie can talk from both sides of the fence, as both a counselor and a client. He does a great job of helping people develop hope that things can get better and that recovery is possible. He's also great about getting people to ask the right questions: "What if I know somebody in the group," "What if I need to miss a session," "What happens to confidentiality if my cousin works for the mental health center," "Can she read my records," those sorts of things. His confidence about recovery inspires people who may still be on the fence about treatment.

JOANNE: Well, Harry, it sounds like you're about ready to go. Now, you know if you have a problem, all you have to do is buzz me and I'll come right in. Sometimes, people need to be taken off the group for a while, and I'll handle that for you if it comes up. If somebody is creating a problem for the group, or if you need some support, just let me know.

> **Master Clinician Note:** When doing treatment groups with clients who are not all physically present in one room, it helps to have a backup person or a cofacilitator who can assist when a client becomes disruptive, has emergency needs, or exhibits some other pressing issue that needs to be handled individually, away from the group. In working with clients on the telephone, this may mean establishing a new call between the backup counselor and the client in crisis. With video conferencing, there should be arrangements to redirect the connection of the client in crisis to a separate, private monitor staffed by the cofacilitator.

HARRY: Sure will, Joanne. Thanks for the support.

Part 2: The group meeting

Harry signs into the secure network about 10 minutes early. The first to call in is Morris, who has attended this group before. He and Harry chat for a bit, waiting for others to arrive. The

next to arrive are Mary and her son. Once Mary is established online, the son leaves his mother alone in the room. Harry speaks briefly with Mary, who isn't very communicative. Harry has a video connection with Mary and observes that she seems anxious. Dee arrives soon after Mary. The microphone on her laptop seems to exaggerate the noise of her children playing and the sound of the television in the next room. Harry asks Dee if she would feel comfortable shutting the door to the next room, and she obliges. Right at start time for the group, Gene appears on-screen. He looks disheveled, like he just got up, and is drinking coffee from a large mug.

HARRY: Okay folks, it's time to start, and we have Morris, Mary, Dee, and Gene attending. There may be one other person joining us, but let's begin.

MARY: Am I supposed to be able to see all these other people? I can see me and you, but I only see silly pictures of the others. On Skype, when my son sets me up to see my grandchildren, we all see each other.

HARRY: Actually, Mary, in this group, what you see on the screen are avatars, or images representing people. For this group, we do that for confidentiality reasons, and because some people are calling in via telephone. So, I can see you and you can see me, but the group members can't see each other. Unlike with Skype, we use a special teleconferencing network that you call into on your computer. It's a secure network that ensures confidentiality.

MARY: Thank you.

HARRY: Okay, let's start with folks giving their first names, and maybe each of you can say a little bit about yourselves and let us know how you are doing.

MORRIS: Well, I'm Morris, and I come to the group when I'm not busy with other stuff.

DEE: *[after a pause]* Well, I'm Dee, and I'm a housewife outside of Seradona. I have three kids who are out of school today, and you'll probably hear them in the background.

MARY: *[after a pause]* I'm Mary, and I own a ranch outside of town. My husband died last year, and my kids think I'm drinking too much. I don't see how this is going to help me. I'm already too overloaded and have too much to do, and now they want me to do this silly thing. Sure, I

Technical Considerations for Video and Telephone Groups

- Use a secure teleconferencing network or land-based telephone conferencing system to protect privacy.
- Consider adequate bandwidth at provider and client ends of the transmission to facilitate adequate image resolution.
- Anticipate fluctuating bandwidth demands when relying on public Internet.
- Address the need for encryption of information on provider and client ends of transmission to ensure privacy. Depending on the service, this may require software to be downloaded and set up by the client.
- Test audio equipment to troubleshoot inadequate audio quality. Choose technology that can run on very low bandwidth if possible.
- Ensure that your technology allows you to mute or remove disruptive members in the group.
- Provide a land-based telephone line for backup.
- Ask clients to test the system prior to the group meeting time.

drink, been drinking all my life. But I don't get looped and I don't drive drunk, so I don't even know why I'm here. Running a ranch is hard work, and keeping up with a bunch of cowboys is even tougher. My husband used to take care of that. Now he's gone, and I'm stuck with it. Am I talking too much? Just tell me to shut up if I am. I'm just frankly pissed that I have to do this.

HARRY: Thanks, Mary. Maybe we can get back to this in a minute. Let's hear from Gene.

GENE: Uh, I'm Gene. I just got up. I don't sleep at night, so at three o'clock this morning I finally took a sleeping pill, and it knocked me on my butt. Now it's noon, and I'm hardly awake.

HARRY: Well, Gene, and all of you, I'm glad you've joined us today. I'm Harry, and I'm the leader of the group. My job here at the center is to work as a recovery coach. I work with people who are thinking about changing their alcohol and drug use, run some groups, help people make connections in the community for recovery needs like healthcare or financial assistance, and just try to help people get started in recovery. For those who are new to this group, I'd like to start by describing the purpose of this meeting.

[Harry proceeds to describe the rules of the group briefly. (For more information on group rules, refer back to the "Ground Rules for Pretreatment Telephone or Video Groups" box earlier in this vignette.) Harry also explains the goals of the group, stating that the group is one of the program's online resources and that clients who take part are often doing so to receive some assistance without always having to visit the agency. Assistance can include information that comes from Harry, from other clients who are part of the group on the call, or from other staff members or workers from outside the agency who attend the group sometimes to address certain specific issues.]

HARRY: The goals of this group are to gain assistance from each other as well as from the group process itself; for those who are new to the group, some of its workings will become clear as the group process unfolds. If there are any questions at any time, just let me know. So, let's begin with me asking you to think about something for a minute. If you could have anything you need at your disposal today, what would you like to have?

MORRIS: I don't understand. Is this a test or something?

HARRY: No, I'm just wondering what you might need in your life today—what would help you live a better life today?

DEE: Well, I know the answer to that one right away. I need my husband to be home more. He's a long-haul driver and does cross-country runs for 12 consecutive days. Then he's back home for 4 days and sleeps most of that time, and then he's on the road again. So, it's like I'm a single mom almost all the time. I know he gets lonely too. He calls me a half dozen times a day, telling me where he is and what the conditions are like. It's a boring job. We live a pretty good ways from town, so when the school bus picks up the two older kids and it's just me and the baby here at home, there's not a lot to do but answer the phone and drink a few beers. Then he gets upset when he calls 'cause he can tell I'm drinking, and then we both get upset, and I just have another beer. I'm doing okay today, though. It's just past noon, and I haven't had a beer yet.

[Harry quickly considers the options of where to head at this point. This is not a treatment group, but Dee is clearly asking for support. On the other hand, if he ventures into working with

Dee, he might leave other group members feeling disengaged. If he invites other group members to engage with Dee to support her, he will have drifted from the agenda of the group, and the other group members will probably just get into giving advice. He decides to briefly support Dee's efforts to resist drinking and makes a mental note to get back to Dee for an individual video session later this afternoon.]

> **Master Clinician Note:** Just like in any group, it's often tricky in telephone and video groups to deal with individual issues while keeping the whole group engaged. If group members cannot see each other, they are even more easily disengaged from these exchanges. Communicate to the individual that you support his or her struggles and will have time to talk individually about the situation later. Once this has been accomplished, you can reinitiate group interaction.

HARRY: Dee, congratulations on not drinking today. That's a good step in the right direction. I'm wondering if we can talk briefly at the end of group today about the issue you raised. Would that be okay?

DEE: Sure.

HARRY: Okay, that's great. What might the rest of you need, if you could have whatever you want today?

[With Harry's support, each group member contributes to the discussion, describing his or her needs. Gene, who has chronic pain, would like pain relief. Mary would like her husband back, alive and running the ranch. Morris would like some friends. Harry briefly suggests that Morris might make some friends in the treatment program if he is willing to attend, but Morris rejects the idea. Harry has hints of regret that he used this particular question in this group. His objective was to get everyone involved, but it ended up raising issues that could not really be discussed and resolved in this kind of group. Harry does encourage Gene to raise the chronic pain issue with his counselor at the center and to make that a particular goal for his treatment. He also encourages Mary to talk about her need for support with her son and to begin making plans with him and her other children for getting some help in running the ranch.]

HARRY: Let's move on now to our special guest. We've invited Willie from our IOP to talk with us today. Willie, I want to welcome you into the group. On video, we have Mary, Dee, and Gene. On the phone, we have Morris.

WILLIE: Good afternoon, everyone. I'm delighted to be here today to tell you a bit about the center's IOP, to talk a little about treatment and recovery in general, and to answer any questions you may have.

Willie proceeds to describe the IOP, interacting with the four group participants and, in particular, describing his own experiences with recovery and using them as a framework for helping clients begin to consider their own expectations, through group discussion, about what recovery might be like for them.

In the meantime, Harry has gotten a notice on the monitor that someone else is trying to enter the conference. He steps into Joanne's office and answers on her telephone. The call is from Bobby, the group participant who did not check in with the group this morning. While Willie

continues to direct the group, Harry speaks with Bobby alone. Bobby seems to be intoxicated; he is slurring his words, rambling, and making different excuses for being late for the group. Harry asks Bobby if he has been drinking. Bobby deflects the question and continues to ramble about why he is late for the group. Harry does a quick clinical assessment of Bobby, checks that he isn't a high risk for suicide, and gives him a suicide hotline number. He also offers to help Bobby make arrangements to enter detoxification, which Bobby declines, and checks Bobby's plans for the day to ensure that he isn't driving. He closes the call by asking Bobby to call in the morning, when Harry thinks it's less likely that Bobby will be drinking.

After making arrangements with Bobby to call the next morning, Harry returns to the group. As Willie wraps up his presentation, Harry becomes more engaged in the group process and thanks Willie for his participation. Harry then invites group members to comment on what they have gotten from today's discussion. Harry mentions that he talked to Bobby offline during Willie's presentation and hopes that Bobby will be able to attend group on Thursday. He reminds Dee of their telephone appointment at 4:00 p.m.; encourages all participants to get or stay engaged in a 12-Step program or other mutual-help group in their area or over the Web; reminds them that if anything comes up that they would like to discuss, they can feel free to give him a call; and closes the group with a reminder of the next group meeting, which is Thursday at noon. He will email each group member a reminder of the Thursday meeting.

Following the group meeting, Harry drops into Joanne's office to get her thoughts about handling the issue of Bobby being intoxicated and Harry not letting him join the group. Joanne agrees that inviting a person who is probably intoxicated into a group of people in early recovery would be detrimental. Harry was careful not to be judgmental with Bobby about his alcohol use, but, at the same time, firm in not allowing him to participate in the group while intoxicated. Harry also made an appointment for Bobby to call at 9:00 a.m. tomorrow and discouraged drinking in the interim.

Part 3: Supervision

In supervision later in the week, Harry and Joanne meet to review the group process and discuss Harry's concerns about the group meeting. Bobby did not call after the group. Harry plans to telephone him on Wednesday to remind him of the group meeting tomorrow at noon. Dee kept her 4:00 p.m. appointment and arranged a video conference session with a counselor on Friday. In the interim, Harry encouraged her to employ a neighbor's teenage daughter to babysit while she goes to an AA meeting in her local community. The small AA group only meets twice a week, but it gives Dee a chance to meet some people in recovery and get out of the house. Dee also reported that her husband strongly supports her efforts to quit drinking and get help. Harry and Joanne go over plans for the group tomorrow. The guest is going to be a local AA member who will speak briefly about opportunities to attend AA and other 12-Step and support meetings in the community and online. Harry is going to give more thought to the questions he asks to get people involved in the group, and he will try not to ask questions for which there may be potentially complicated answers that cannot be addressed adequately in the brief group setting.

Locating Online and In-Person Mutual Support Groups

Online and in-person mutual-help groups can be important resources for clients participating in telephone or video conferencing groups. A range of mutual-help resources are available online. Although some clients will be very sophisticated users of social media, others will need advice about how to protect their privacy when using social media. See Part 2, Chapter 2, for a link to safety tips for social networking. The following resources may help you select reputable mutual-help groups:

- Substance Abuse In Brief Fact Sheet: An Introduction to Mutual Support Groups for Alcohol and Drug Abuse (http://store.samhsa.gov/product/An-Introduction-to-Mutual-Support-Groups-for-Alcohol-and-Drug-Abuse/SMA08-4336)
- Faces and Voices of Recovery: Guide to Mutual Aid Resources (http://www.facesandvoicesofrecovery.org/resources)

Part 4: The second group meeting

Harry opens the televideo meeting space about 10 minutes before the group is scheduled to begin. Mary is the first to check in, but she cannot be heard because she has pressed the mute button on her computer. Harry quickly calls her home telephone number and helps her activate the speaker on her computer. In rapid order, Morris (telephone), Dee (video), Gene (video), and Bobby (telephone) come online.

HARRY: Welcome, folks. We have everyone who is scheduled to be here online. Morris and Bobby are connecting with us by telephone.

A loud screech can be heard in the background. Harry's console indicates that it is coming from Bobby's telephone.

HARRY: Bobby, there might be a problem with your phone. Are you on a cell or landline?

BOBBY: I'm driving to the store and I'm on my cell. I gotta get to the store and cash my check and get some cigarettes.

HARRY: *[trying not to show exasperation]* Bobby, I appreciate you making the effort to connect with us today; that is, for sure, a step in the right direction. However, I am concerned that you're driving while on the phone. Can you put the phone down, find a safe place to park, and then pick the phone back up? We won't hang up; we'll wait for you. If not, would you give me a call this afternoon when you get back home, maybe around two o'clock? Would that work for you?

Master Clinician Note: Although land-based telephone connections tend to be slightly more stable than cellular connections, it is no longer realistic to require clients to access telehealth services through land lines only. Many people do not have land lines in their homes anymore and rely solely on their mobile phones for telephone-based communications; public payphone landlines are less and less common and are often in highly trafficked locations that might well compromise client confidentiality. Security issues to consider when using mobile phones are addressed elsewhere in this chapter. As for connectivity issues and reception-dependent quality of audio and video transmissions from clients using mobile phones, you may consider asking clients to try out various easily accessible locations prior to accessing telehealth services so that they can select a location with adequate, stable reception. They can then plan to be, and remain, in that location for the duration of their participation in telephone- and/or videoconference-based behavioral health services.

How To Manage Challenging Interactions in Telephone or Video Group Meetings

- Have a backup clinician help with crises or difficulties as you continue with the group.
- Encourage the use of appointments outside the group session to address sensitive issues.
- Do quick status checks with each participant to identify any issues that need to be addressed either in group or after the group.
- Establish clear group rules and norms in the beginning; reinforce them during each session.
- Consider practicing your protocols with a peer before your first session.
- Use structure (e.g., check-ins, topical discussions) to ensure that everyone has a chance to talk.
- Have resource lists available to provide referrals quickly.

BOBBY: *[defensively]* Well, man, I gotta get my check cashed and I'm outta smokes. Sometimes you just gotta do what you gotta do.

[Bobby hangs up. Harry is concerned that he is talking with a person who is probably violating the law by driving without a license; Bobby's was revoked for driving while under the influence. Harry will consult with Joanne as soon as the group is finished to see what he should do. He is also aware that the rest of the group was listening in on the interaction.]

MORRIS: Well, I'm glad you got rid of him. I don't like him.

DEE: He kind of gives me the creeps.

GENE: Well, I think the guy is just doing what he's got to do.

HARRY: Guys, I'm concerned that we're going to sit here and critique Bobby. Instead, let's move on to our agenda for the day. Suppose we start with a check-in. How about checking in by giving us your first name and what you would like to get out of today's meeting?

DEE: Well, I'm Dee, and I want to let you know that I did hire the neighbor's girl as a babysitter, and I went to a meeting in town last night. It was only six old guys and me, but you know what? They were friendly, and I felt welcome, and they invited me to come back. I wouldn't say it was a good time, but it was nice to get out of the house, and I felt welcomed at the meeting. One of those guys got sober before I was even born. Can you imagine? Somebody hasn't had a drink in 34 years! He was a hoot. I'm surprised he can even remember back then.

MARY: Honey, some of us aren't as slow as we look. I'm pushing 70 and I still run a ranch!

HARRY: Mary, introduce yourself and tell us what you would like to get out of today's meeting.

MARY: Oh, sorry. I'm Mary, and I don't know what I need to get out of this. I guess what I need to get out of this is to *get out* of this. My kids put me up to it. Forced me, actually, and it looks like they're going to stay on me until I cut back on my two or three drinks in the evening. You know, there isn't much to do on the ranch after about seven o'clock at night.

HARRY: Okay, so what you would like to do is complete the program?

MARY: I guess that puts it pretty clearly.

Master Clinician Note: Notice that rather than fighting resistance, Harry asks Mary to identify her own goals for participating. This can be an effective way to create ownership for change. Asking clients to identify what they want helps to refocus them on their own goals rather than on goals others may have for them.

HARRY: Okay, who else is here?

MORRIS: Well, I'm Morris. I just want to say…Dee, I figured out, you being from outside Seradona and all, that I went to school with your sister, Jan. Actually, I had a crush on her, but she wouldn't go out with me. I think you're a little older than her, and you married Billy Rogers and then y'all got a divorce, right? *[after a long silence]* Did I say the wrong thing?

HARRY: Well, Morris, I think we want to help people keep their anonymity here, to preserve people's confidentiality, you know. That's why we only use first names. You might, particularly in a small place like where we live, figure out who some group members are or who they're married to. But I think it's always wise to let them decide what to share and what they want people to know about them and their personal lives. Otherwise, it can feel dangerous, kind of like they're being exposed.

MORRIS: Well, I was just trying to be friendly.

HARRY: I understand that. I don't think you were trying to expose anyone intentionally. Dee, you have anything to say about what's happening?

DEE: Yes, I know who you are. I think I'd rather you not be talking about me in the group, but I don't think you meant anything mean by it. So, let's just forget it—especially the part about Billy Rogers.

MORRIS: Well, I'm really, really sorry.

GENE: Could we just move on here?

[Harry begins to think he is getting in over his head, but he doesn't think it would be appropriate to call Joanne in. He does make note of items to discuss with Joanne after the group.]

HARRY: Gene, you're the last check-in. What would you like to get out of today's meeting?

How To Manage Confidentiality During Telephone or Video Group Meetings

- Review privacy and anonymity guidelines with each client before they join the group and again as a group whenever new members join.
- Help clients differentiate between anonymity and confidentiality; honor both in the group.
- Mail or email a confidentiality statement/agreement to clients before the group begins.
- Remember to cover traditional confidentiality and anonymity concerns as well as those that are unique to telephone and video groups, such as other people entering a room when a group member is online.
- Distribute a sheet of safety tips about Internet privacy and risk to clients at the time they enroll in group (see Part 2, Chapter 2, for links to sample safety tips).
- Connect clients with options for online support that do not compromise privacy, such as mutual-help groups, chats, and blogs.

How To Get Assistance During Telephone or Video Group Meetings

When scheduling telephone or video groups, plan for backup support to help manage unexpected situations. Ideally, support will consist of a second clinician who is on call and technology that allows this clinician to take a client into a separate discussion if necessary. Remember to:

- Let the group know what is going on. They may not be able to see, hear, or detect concerns as you can. Tell them if you need to exit the group and how long you expect to be gone.
- Deescalate the situation by offering individual support from another clinician or by offering to engage with the client one-on-one after the group. Schedule a follow-up session immediately after the group, if needed.
- Avoid disclosing personal information about any individual in group. Stick to statements like, "It sounds like you could use some extra support," or, "Let's talk more about this after group," which communicate to the other group participants, without disclosing additional information, that you are planning to follow up with the client in need.

GENE: Well, I'm Gene. And I called in today especially because I'm feeling pretty shaky. I'm craving bad. I've really tried not to take the pain pills for a couple of days now—three, actually. I've smoked some, but no booze and no pain pills, and I'm beginning to feel my skin crawling. Like I'm itching.

HARRY: Gene, I'm wondering if you think you need to talk to someone now about coming into the center. Sounds like you may be having some withdrawals.

GENE: Damned right I'm withdrawing. Man, I need something.

HARRY: Okay, right now, let me put the group on mute for a minute and I'm going to make a phone call and see what we can do.

[Harry mutes the group and calls Joanne. Joanne answers and agrees to take Gene offline, do a quick evaluation, and arrange for any care he may need. Harry returns to the group and unmutes his line.]

HARRY: Gene, I'm going to switch you over to Joanne. You may remember her from your evaluation session here at the center a couple of weeks ago. She's going to talk with you personally, and the two of you can make some decisions about what needs to happen. Is that okay with you?

GENE: That sounds about right.

HARRY: Okay, everyone. Hold on for a minute while I mute the group and help Gene get connected to Joanne; I'll be right back with you after that.

[Harry connects Gene and Joanne, makes introductions, and then returns to the group, unmuting his audio feed once more.]

HARRY: Okay, everyone, I'm back. Next, I want to introduce our guest this morning, Michael, who is a graduate of our program and a person who is active in mutual-help groups in the community. Michael, welcome to the group.

How To Manage an Exchange of Personal Information in an Online Group

Clients may wish to exchange personal information for a variety of reasons. Clinicians can help clients manage their privacy in the following ways:

- Review guidelines for anonymity regularly in groups and individually.
- Distribute information about how to control access to private/identifying information before the clients participate in online interactions.
- Take clients temporarily offline to reinforce privacy when needed.
- Support out-of-group discussions through chats, blogs, and other mutual-help options.
- Facilitate talks among participants who wish to share personal information as needed.
- Invite guest speakers to discuss Internet privacy concerns and protections.

[Michael introduces himself and talks about his experience in mutual support groups in the area. He answers several questions about anonymity in the groups, groups for women, relapse, and other topics. After about 15 minutes, he turns the meeting back over to Harry.]

HARRY: Well, folks, I think that about takes all the time we have for today. Before we stop, are there any closing questions or comments?

MORRIS: Dee, I still feel terrible about what I said. I only meant to see if you were Jan's sister.

DEE: No problem.

HARRY: Dee, I'm wondering if you and Morris would like to meet for just a few minutes after the group is over for you guys to clear the air over anything left over from today?

DEE: I really don't need to.

MORRIS: Me either. I feel bad about saying what I said, but I'm glad Dee isn't upset with me.

Harry closes the meeting, reminding people about confidentiality of information the group shares, about the time for the next group meeting, and about calling him or other staff members if they have questions or if something comes up for them over the weekend. Harry has also kept a list of items that he needs to discuss in his next supervision session with Joanne. He remembers that Bobby is supposed to call around 2:00 p.m. and makes a mental note to await the call.

Vignette 4: Incorporating TAC Into Behavioral Health Services for Clients Who Are Hearing Impaired

Overview

TAC offers a variety of previously unavailable options for individuals with special needs to access treatment. These special populations include people who live in rural and remote areas, people with disabilities that limit access, individuals whose employment limits their options for regularly scheduled services, and people who will not access services through conventional (e.g., office visits, in-person counseling) methods. Additionally, TAC opens up the possibility of maintaining contact when not in session by using motivational messages, simple wellness check-ins, appointment reminders, and other options.

Some individuals who are hearing impaired consider themselves part of a community that, in fundamental ways, has its own cultural identity; individuals in this community prefer the term "Deaf," which does not directly reference impairment. To promote cultural competence, the counselor in this vignette follows the client's wishes and uses the terminology most conducive to recognizing and respecting the client's cultural beliefs and identity. In all other areas of the TIP, the term "hearing impaired" is used to refer to individuals who are Deaf or hard of hearing, but in Vignette 4, the terminology reflects the preferences of the Deaf community.

This vignette describes ways in which technology can support intake, assessment, referral, treatment, and continuing care for Deaf clients, a specific group of people for whom technology plays an important role in access to care. It also addresses ways in which Web-based technologies and supports can help deliver behavioral health services to the Deaf population. The use of computers, smartphones, and other Internet-supported devices enables users to have in-person conversations as well as typed and video-based communication in real (synchronous) time. In addition, some recovery resources, once only available in print form, can now come to life in American Sign Language (ASL) for Deaf users. The 12 Steps, daily affirmations, and other valuable tools are now available for Deaf consumers in video form and can be viewed via the Web.

Setting

The county behavioral health agency is located in a small city and provides outpatient services to residents who may live as far as 30 miles away. The agency provides accessible services to clients with disabilities, including Deaf individuals seeking help. There is no one on staff, however, who is fluent in ASL or has extensive knowledge of culturally appropriate treatment for Deaf clients.

Learning Objectives

- Identify how TAC can enhance accessibility and treatment for Deaf clients.
- Explore special considerations and options for treating Deaf clients who have mental or substance use disorders.
- Understand a variety of accessibility issues in providing services to Deaf clients and how TAC may be an avenue for addressing these issues.
- Learn privacy and special counseling considerations when using TAC.
- Learn how to use Web-based supports to enhance client outcomes.

Maria's Story

Part 1: Beginning to work with an interpreter

Maria is a staff counselor at the county behavioral health agency who had some experience working with Deaf clients during her internship in graduate school. Her new client, Mike, is a 32-year-old Deaf man who has been referred to Maria's agency by the court for substance use disorder assessment. Maria makes a few calls and does some Internet searches; she learns that there are a few different treatment options for Deaf clients. One is a mainstream program using an interpreter in a local agency with inpatient and IOP options, both designed primarily for clients who can hear. Another option is for the client to attend a specialized treatment program that is linguistically and culturally appropriate for a Deaf client, with staff members who are able to communicate directly in ASL. For example, the Minnesota Chemical Dependency Program for

Considerations Prior to Your First Session With a Deaf Client

- ASL will require a certified interpreter who is competent in the language of the client.
- Interpreter referral services are sometimes administered through the state by an outside agency or through a contract with the state. Payment of interpreters is typically provided by the agency if they are required by law to provide accessible services under the Americans With Disabilities Act.
- A client may choose not to work with a specific interpreter because they do not find the person to be a good language match or because the Deaf community is small and there may be a potential for dual relationships.
- A client who seems unwilling to work with all available interpreters may be doing so for a variety of reasons—therapeutic resistance may be one of them.

Deaf and Hard of Hearing Individuals (MCDPDHHI) in Minneapolis, MN, accepts clients from across the United States.

She understands that to work with Mike, she needs more information, so Maria contacts her State Division of the Deaf and Hard of Hearing to consult with their behavioral health and accessibility expert, Vernon. The administrative assistant at the division explains that Vernon will contact her using a video relay service, an accessibility service that provides interpreters to facilitate communication between people who use the phone and people who use video streaming for remote communication. A short time later, an operator/interpreter calls Maria via video relay. The operator explains that Maria is receiving a call from a person who uses sign language to communicate and that she will interpret back and forth between the two of them. The operator is looking at a monitor and can see Vernon, and she is wearing a headset to hear Maria over the phone. The operator explains that Maria should just communicate as though she is talking directly to the caller.

VERNON: *[signing]* Hi, Maria. I'm Vernon, and I got your message about seeing a Deaf person with a substance use problem. I'll be happy to help with issues of accessibility and any other issues you want to discuss.

MARIA: *[through the interpreter]* Thanks, Vernon. Yes, I worked with a few Deaf people in graduate school, but there seems to be a lot of new technology, and I'm delighted that you're here to help. For confidentiality purposes, let's refer to my client as "M," if that's okay with you.

VERNON: Sure.

> **Master Clinician Note**: Maria speaks at a natural pace on the phone. She remembers to clarify with Vernon the meaning of any acronyms she uses, just as she would with anyone who might not be familiar with the lingo or jargon of her field.

MARIA: At the substance use disorder program, we have a standard protocol for assessment, and fortunately, the instruments we use are also available in ASL digitally and are accessible on the Internet. We'll have two interviews to collect data and decide on a treatment plan. We'll need an interpreter for the interviews, and the assessment instruments will be administered during one of the interviews.

How To Identify Your Client's Preferred Methods of Communication When Not In Person

Consider the following issues:

- Can the client talk and hear on the telephone?
- Does the client have access to high-speed Internet, Web cams, and monitors for videophone-based communications? Videophone technology enables ASL users to communicate with each other directly in real time. It is secure and private.
- Does the client typically use a video relay service? Such services combine the use of telephone and videophone technology to facilitate calls between people who communicate in ASL and people who communicate through speech and hearing. Callers dial dedicated numbers that connect them to a relay interpreter who is fluent in spoken English and ASL. The interpreter places and then translates the call. The interpreter sits in front of a Web cam and monitor and wears a headset, enabling him or her to see and be seen by the ASL user and to hear and be heard by the spoken-English user. The technology is secure and private, and the interpreters are certified and adhere to strict ethical guidelines.
- Is the client comfortable communicating in written English? Text messaging or email communication is preferred more commonly by clients who have competence with written English.
- Have you alerted the office staff members at your agency that they may receive calls from video relay services? Some agencies require all clients to work through the front desk to contact their counselors.
- Does your agency allow for appointment communications to happen via email or text messaging? For some Deaf clients, this is more effective and direct than video relay.

VERNON: I'm sending you two email attachments with information about determining your client's preferred way of communicating between sessions and about issues to consider when working with interpreters. You may already know that many Deaf people do not speak English as a primary language and may not understand written notes, including email and text messages.

MARIA: Yes, I remember that from my graduate school days. Okay, I've received your email attachments and I'm looking them over now.

VERNON: Do you know M's comfort level or competence with written English?

MARIA: I know that he graduated from the state school for the Deaf, but I was told by the probation officer that he had a hard time completing the written forms required by the court.

Master Clinician Note: Maria thinks she will need an interpreter for her client to participate in certain aspects of the intake and treatment process. She is aware that the interpreter will not take the place of clinical staff, nor will the interpreter take on roles typically executed by program staff. She also knows that if assessments and materials used in intake, treatment, or continuing care require reading or writing, they may not be appropriate for use with her Deaf client.

VERNON: Be aware that the interview will probably take longer than it would with a hearing client. The interpreter should be there a little early to meet you and work out details. Now, let's move on to the second attachment about issues to consider in working with Deaf clients and interpreters. It's important that you talk with the interpreter about any terminology or acronyms that are specific to what you'll be discussing. Some examples include terms like AA, tolerance,

Certified Deaf Interpreters

The Registry of Interpreters for the Deaf certifies trained individuals who are Deaf or hard of hearing to serve as interpreters. CDIs have proficient communication skills, have received interpreter training, and possess knowledge and understanding of Deaf culture and the Deaf community, as well as language fluency to help enhance communication. State departments that oversee services for Deaf individuals can be excellent resources for treatment programs that need interpreter services. For more information, see the Registry of Interpreters for the Deaf Web site (http://www.rid.org/rid-certification-overview/cdi-certification/).

withdrawal, and so on. Many interpreters specialize in mental health and/or addictions work and may have greater facility with the lingo than those who don't have this specific training or skill.

VERNON: Are you familiar with the term "CDI"?

MARIA: No, I'm not.

VERNON: Okay, I think it is important that you know something about Certified Deaf Interpreters. So, I'm sending you another email about working with a CDI.

MARIA: Vernon, I have one last question. If M and I wanted to call the specialized treatment program for Deaf individuals from my office, would it be all right to use Skype? We don't have a videophone here, and I want M to be able to communicate directly with the Deaf and signing staff there if he has any questions.

VERNON: That's a great question. Presently, many individuals who are Deaf and businesses and organizations that employ Deaf people have access to videophones. Unfortunately, Skype does not have the picture or streaming quality of videophones, which can cause choppiness in the sign language. Additionally, Skype doesn't have the security and privacy features that would be necessary for the type of conversation that you and M may need to have with another agency. There are companies that provide secure Web and multiparty video conferencing software and online services. If security isn't a concern, some Deaf clients may choose Skype or iChat to keep in touch with hearing family members. The chat feature enables users to type back and forth in the event that signing is too choppy, or if hearing family members don't sign. This tool can be used when clients are in an inpatient program and want to be able to call hearing family members to talk. It can also be used by Deaf and hearing individuals in recovery for support between meetings.

At the end of their conversation, Maria and Vernon exchange contact information, and Vernon tells her that he will send her links to additional resources. Vernon explains that the best way to reach him is by email for the most immediate response.

Part 2: First session with the client

Maria is ready for her first session with Mike. She has hired an interpreter through her agency. Maria has already chatted with Mike via video relay and has prepared the staff at the front desk to receive both the interpreter and the new client. She has asked the interpreter to come in a few minutes early so that she can review forms and her agenda for the first session. After meeting with Maria, the interpreter returns to the waiting room to wait for the client. When Mike

How To Set Up the Space To Work With an Interpreter

- Ensure that the room is well-lit with overhead lighting, as opposed to a window as the sole light source—this will prevent anyone from being backlit and in silhouette, which makes it difficult to see faces.
- Leave enough room for each person in the meeting to sit comfortably with the interpreter seated next to the hearing person. The client needs to be able to have visual access to both the counselor and the interpreter.
- Reduce all visual distractions.
- Speak naturally and look directly at the client, directing all communication to the client. Do not ask the interpreter, for example, to "Ask the client if he…" Rather, direct all communication to the client. The interpreter will let you know if your pace is too fast.
- There may be a lag during communication between the interpreter and the client. This may happen for a variety of reasons:
  - The client may not be familiar with terminology or may use different signs from those the interpreter is using.
  - The interpreter may need to back up if there was a communication error that needs to be corrected.
  - The client may be asking questions that are relevant to the communication but not the content.
- It is important to have the Deaf person's attention before speaking. To get a Deaf person's attention, it is appropriate to tap on the shoulder or wave gently. Make sure to look directly at the Deaf person while speaking, even though your natural tendency may be to look at the interpreter. Eye contact is important when communicating with Deaf people. Be aware that if you look away or look elsewhere, it may be distracting for the Deaf person.

arrives, Maria invites him and the interpreter into the session. She asks Mike and the interpreter what the best seating arrangement would be. Mike requests that the interpreter sit next to Maria across the table, explaining that this will enable him to see both Maria and the interpreter. They begin by completing the intake forms.

MARIA: I'm glad you're here today, Mike. It's nice to meet you.

MIKE: It's nice to meet you, too. I'm not sure how to tell you about my problems. I never had to come to counseling before. I had to come here because everyone says I drink too much, and sometimes I steal pills from my family.

[Mike proceeds to provide Maria with information about his alcohol and drug use.]

MARIA: Lots of people come here because they are having problems related to their alcohol and drug use. We have plenty of time to talk about that, but to begin with, you'll need to complete these forms so that the agency will have all of the information they need about you. These are forms that everyone who comes here completes. Some forms are for insurance, some are for us to know more about you, and some tell you about us and the work we do. Often, people have questions, so I'll be right here in case you need any help.

[Soon after completing basic demographic information, Mike indicates that he doesn't know several of the words or how to spell the answers to the questions. Maria works through the interpreter to help Mike complete the form. She acknowledges that he understands most of the concepts but is not confident in his ability to read and write.]

Substance Use Disorder Screening Tools Developed for Use With Deaf Clients

The Substance Abuse Screener in American Sign Language (SAS-ASL) is an accurate and brief questionnaire specifically developed and validated for the Deaf population to screen for substance use disorders among Deaf adults in behavioral health, vocational rehabilitation, and social service settings. The screener is available through the SASSI Institute Scoring and Report Service (http://www.sassi.com/srs/). Counselors who register to use the Scoring and Report Service can access the link to the SAS-ASL video questionnaire via the Internet and download support materials and the paper version of the questionnaire used by clients to record their responses. Completed questionnaires are sent in for automated scoring, and a report on client results, along with identification of key issues affecting each client, is returned to the counselor via email or fax. It is important to let clients know that this process is secure and confidential.

The Global Appraisal of Individual Needs–Short Screener ASL Version (GAIN–SS-ASL) is a 23-item screening tool to identify mental and substance use disorders. It is administered interactively through Chestnut Health System's Web portal using videotaped clips in ASL; clients answer items by clicking on the choice that best fits them. The instrument screens in four areas: internalizing disorders (e.g., depression, anxiety), externalizing disorders (e.g., attention deficit hyperactivity disorder, conduct disorder), substance use disorders, and crime/violence problems. The instrument is scored via computer, and two narrative reports on the individual's results are produced. Results can be used on the individual level as a measure of change over time and on a quality assurance/program planning level. As a screening instrument, the GAIN–SS-ASL does not provide a diagnosis, but it does accurately identify individuals who most likely have a disorder that would be identified with a longer assessment or clinical interview. Early tests with the GAIN–SS-ASL indicate that the instrument is appropriate for use with adults who are Deaf or hard of hearing and are 18 years of age and older. The written language form of the GAIN–SS-ASL is available in English and Spanish, as well as other languages. For more information on the GAIN–SS-ASL, visit the GAIN Coordinating Center Web site (http://gaincc.org/gainss).

MARIA: Next, we need to find out more about your drug and alcohol use. Today, we are going to use the computer to complete an assessment. You'll watch the monitor and answer the questions, which will be signed in ASL. Then I'll send your answers to a company that scores the assessments. The results will be sent back to me, and we'll look at them before our next session. This will help us to get a better idea about what kinds of treatment options might be best for you. Is this acceptable to you?

MIKE: Wow, that's cool. So I just watch and complete the form? I'm happy that all of this is available for me in ASL. You used video relay to call me, and you have an interpreter, and now this. I really appreciate it all. English is hard for me.

Master Clinician Note: Finding direct, efficient ways to communicate can be frustrating for Deaf clients, who—until recently, with technological advancements—often had to rely on other people and/or antiquated methods to overcome communication challenges. Many (but not all) Deaf people were early adopters of technologies such as computers, handheld devices, and high-speed Internet for video streaming. This has enabled easier communication via email, videophone, and text messaging. Clinicians' willingness to use these technologies enhances access and supports the therapeutic alliance.

MARIA: I'm glad that these things are helping you. It's really important that you be able to fully participate in your treatment.

Before the session ends, Maria tells Mike that they'll discuss the assessment results and plan next steps at their next meeting. She also asks Mike if video relay is a good way for them to communicate. Mike says that video relay is fine and that email and text messages are okay, too. At this time, Maria takes a moment to let Mike know that their communication via email and text will be limited to brief communications about appointment times or quick questions he may have. She explains that email and text messages are not going to be used for counseling because she wants to have direct and comprehensive communication with him whenever possible, and because neither text nor email is confidential.

Part 3: Maria meets with Mike to discuss treatment planning

Maria and Mike discuss his assessment, which indicates that inpatient residential treatment is his best option. Maria presents Mike with two options. The first option allows Mike to go to a community-based inpatient treatment program for hearing people and use a program-provided interpreter for 6 hours a day. This would mean that he could participate in most of the group meetings and some counseling sessions, but there would be no interpreter for events outside the designated 6 hours. He would also be able to attend an interpreted AA meeting if program staff members can drive him there; however, this depends on staffing and available transportation.

Mike wants to know whether there will be other Deaf people in the program and whether friends and family can visit him; he has reservations because, in previous treatment situations, he found it difficult to communicate, and he believed that people were mad at him and thought he didn't try hard enough. He wants to go to treatment closer to home so that it will be easier to get home if he doesn't like it. Maria assures him that treatment is voluntary and that neither program will force him to stay if he doesn't want to.

The second option is for Mike to attend an intensive outpatient program that provides lodging and is designed specifically for Deaf people. Maria knows of a hospital-based treatment program that offers both acute care and residential programs, depending on client need. It is staffed by Deaf and hearing providers who are fluent in sign language so that all group sessions, psychoeducational groups, and individual counseling sessions happen through direct communication. Deaf clients also attend 12-Step meetings in the community, as well as within the general treatment program, which are interpreted by staff interpreters. All staff members, including interpreters, are trained and knowledgeable about Deaf culture, ASL, substance use disorders, and 12-Step culture.

Mike is concerned that leaving the state will be a problem, and he is worried about how he will afford this arrangement. Maria explains that Mike's Medicaid will cover the cost and assures him that she'll work with him to figure out how to cover his airfare expenses.

MIKE: What if these people don't communicate like me? I do all right with my family. We have our own words, but that may not work with people in Minnesota.

MARIA: Mike, I think we'll just have to see how that works. A lot of Deaf people from all over the country go to this program and they seem to do okay. They have videophones and computers and, as I said, all the counselors use ASL.

Substance Use Disorder Resources for Deaf People in Treatment and Recovery

Organization	Types of Resources
MCDPDHHI: http://www.mncddeaf.org	Treatment articles on the Web site, recovery materials in print and via video and live videostreaming on the Web
Deaf Off Drugs and Alcohol (DODA): http://www.dodarecovery.org	Deaf AA and support group meetings, daily thoughts/affirmations, and meditation in ASL
AA: http://www.aa.org/	Live online chat, interpreted meetings, Web-based Deaf AA meetings
E-Michigan Deaf and Hard of Hearing People: http://www.michdhh.org/	AA steps in ASL videos, 12 Steps interpreted into ASL

MIKE: Can I come home if I'm not happy there?

MARIA: The program is voluntary, and you can leave if you aren't satisfied with it. In fact, let's call the treatment program now.

Maria and Mike call the intake coordinator at the Deaf-specialized treatment program. Mike participates through the interpreter. The call helps Mike feel comfortable with the decision to go to the specialized program. The intake coordinator also tells Mike about some resources he can use in the days leading up to his departure for Minnesota and emails the list to Maria and Mike.

Part 4: Working with the client to address frustrations

Mike is in Minnesota. Maria has not heard from the treatment program staff, but she has received three emails from Mike, and he has called her twice via video relay. He complains about not feeling as competent as other clients with the language and pace of the program, not feeling included by the group, and not liking that the entire staff knows his business. Mike has told Maria he is going to quit the program. Each time he calls her, Maria asks Mike if he has shared this with his counselor in the program, and he deflects the question. Maria has concerns about diluting Mike's treatment, so she asks if it is okay for the two of them to have a conversation with his counselor. Mike is hesitant, but agrees. Maria reminds him that it is not her practice to have extensive conversations by email or videophone. Mike tells Maria that he will tell his counselor. Mike's counselor is Deaf, so a staff interpreter in Minnesota will translate the call.

> **Master Clinician Note:** Deaf clients in treatment will likely present with the same types and levels of resistance that hearing clients do. It is important that the referring clinician not dilute the treatment process or enable the client not to develop a therapeutic relationship with staff members at the treatment program. Clinicians should remind clients that emails may not be confidential and may not be an effective medium for counseling.

During the phone conversation among Mike, Maria, and Mike's counselor, Mike expresses his fear and resentment, and they agree that Mike needs to bring his concerns to the program staff if he has any hope of getting support. Maria can't help Mike with his problems in treatment, but the program staff can. They agree that Mike and Maria will resume their work together when it is time for discharge. After Mike returns home, he will see Maria for continuing care planning.

The telephone call seems to help Mike feel safer in the program. He understands that the treatment team is working with him and not against him, and he begins to ask for help from the staff and the other clients in the program. He stops complaining, starts to feel connected in a way that he never has before, and begins to value much of what he resisted in the beginning. This feeling of connection extends to his experience at the AA meetings he attends, and soon, he is participating in all aspects of treatment.

Part 5: Helping the client engage with community-based supports

Mike is back home and is at his first meeting with Maria since returning from Minnesota. Maria is working with an interpreter and is discussing the community-based supports that Mike can use in his recovery. She gives him a list of the interpreted AA meetings in the state. The closest interpreted meeting is 20 minutes away, and the other two weekly meetings are almost an hour away. Maria discusses online AA meetings with Mike, and he is ready and able to participate. His plan is to log on to the online AA meetings and the daily Deaf Sober Chat. He has also been enjoying the daily recovery affirmations on the DODA Web site and uses them each day.

MARIA: *[speaking to Mike through an interpreter]* Well, Mike, you look great. Did you have a good trip home?

MIKE: *[signing through an interpreter]* Yes. My family was glad to see me.

MARIA: So, you have the list of AA meetings and you are going to attend meetings regularly?

MIKE: I can make the one with an interpreter that's close to my home every week. They only have the interpreter that one time during the week. I'm also going to Deaf AA meetings online.

Maria and Mike discuss the importance of developing a network of people who will help him stay abstinent. Mike explains that the Deaf community is wherever Deaf people are. He is willing to drive some distance to have Deaf sober friends. Mike explains that he learned in treatment that he used alcohol to avoid feelings of isolation and loneliness related to growing up around people without hearing impairment; he had known very few people who could sign, except for when he was at the School for the Deaf. He explains that going to family parties, or even going to community events, left him feeling stupid and alone. He tells Maria that he is not strong enough in his recovery to go to a meeting without other Deaf people, which may make him feel alone again. He doesn't believe he will get any benefit from a meeting that is not accessible. Mike agrees to continue seeing Maria twice a week; as he stabilizes in recovery, the frequency of visits will diminish.

Vignette 5: Using Smartphones To Support Recovery for Clients With CODs

Overview

This vignette illustrates how to use apps to help clients with CODs regulate their emotional responses, to enhance the therapeutic alliance, and to foster clients' use of effective coping strategies. The vignette demonstrates how to help address client resistance to using a mobile phone or tablet app, how the app can be personalized to meet the needs of a specific client, how the app is applied in a crisis situation, and how to motivate counselors to use apps in their practice.

Learning Objectives

- Use apps to assist a client who experiences severe and persistent mental illness.
- Introduce the client to the idea of apps with a mobile phone to support recovery.
- Understand how a mobile phone app can be applied during a client crisis.
- Adapt apps for a wide variety of mental and substance use disorders.

Setting

Betty is a counselor in a comprehensive CMHC that serves several counties. She carries a caseload of approximately 70 clients. Many of these clients are seen weekly, and others, biweekly; she sees a few who are in ongoing recovery on an as-needed basis. Given the size of her caseload, using treatment extenders, or ways to expand treatment beyond weekly or biweekly office visits, is imperative. Treatment extenders are particularly important for clients who need a lot of reassurance, who frequently experience life crises and need immediate support, who need assistance in making everyday decisions, or for whom not being able to access their counselor as needed represents abandonment. Because many people with whom Betty works own mobile phones that can access the Web, she explores Internet apps that can be of use. This vignette demonstrates how she uses some of those apps in her practice.

Joan is a 29-year-old single woman who lives alone and has struggled with depression, bulimia, posttraumatic stress, and alcohol use disorder for the past 8 years. Her alcohol use and other self-destructive behaviors are primarily triggered by posttraumatic stress reactions. After a suicide attempt while intoxicated about a year ago, she began seeing Betty at the CMHC. At first, her attendance was sporadic. Slowly, Joan has become less fearful of treatment, and her relationship with Betty has become very important to her. Although she now attends her treatment appointments regularly, she still has frequent crises in her life, which are often related to interpersonal issues and posttraumatic stress reactions. During these crises, she has few resources to fall back on and is at risk of self-harm through alcohol use, suicidal behavior, and bingeing and purging.

Joan seems to be an ideal candidate for treatment extenders that would help her stay connected to Betty and to her recovery. In the first scene of this vignette, Betty introduces the idea of treatment extenders through mobile phone apps to Joan, and the apps are used during a crisis situation in Joan's life. In the second scene, Joan and Betty discuss, in an office session, how the app worked. Betty then meets with other staff members, describes using treatment extenders, and invites other clinicians to consider how they might use mobile phone or tablet apps.

Betty's Story

Scene 1: Introducing treatment extenders to the client

The session begins with Betty introducing Joan to the idea of incorporating mobile apps into treatment. She explains that they don't replace current treatment, but rather act as adjuncts to support the gains Joan is making and to help Joan manage strong emotions and stress reactions in her life as they occur. Joan has expressed some reluctance about using the apps.

BETTY: So, you seem to have some concerns about this technology that we might use in addition to what we already do. This is not going to take anything away; this is to add on. Tell me a little bit about what your concerns are.

JOAN: My fear is that you're just turning me over to a mechanical device, and I need more than that. I really need your support.

BETTY: So, you're having concerns about being distanced from me or not being able to connect with me if we use this device.

JOAN: Yeah. Because what you're saying is, "Don't call me; press this button instead."

BETTY: So, if you learn how to use this and get pretty good with it over time, you think there may be more risk of distancing from me. I can understand your fear of losing our connection, but I want to assure you that this isn't going to replace what we currently do in treatment—that is, you seeing me weekly, and the two of us talking on the telephone when you have strong emotional reactions or feel that you are in a crisis. It just supplements that, and perhaps it can help you manage some of those difficult situations better.

JOAN: Well, you've always been honest and straightforward with me. That's been really important to me. It really scares me that I might lose my connection with you.

BETTY: I want you to know that I value our connection. There's no way that I would allow the device to interfere with that. I don't want to be replaced with a machine, either. If we try this mobile apps idea and it isn't working, I'll definitely be the first to say we should drop it. But I really do believe it's going to help, and I want to see you give it a try. I firmly believe that this is a way for you to actually feel more attended to, rather than less.

Master Clinician Note: The counselor walks a fine line between pushing Joan to try the app and allowing Joan's fears to limit her in trying something that could be really helpful. Betty chooses to take a middle-ground approach of encouraging Joan to try the app, but acknowledging that if it isn't working, they can give it up.

JOAN: That sounds good. I'm just still afraid that you're going to be less available to me.

BETTY: The way the app works makes me actually more available, in a sense, because if you're really in trouble, the system can tell me. If you're sensing that you are getting overwhelmed by emotions, you can contact me or the on-call counselor directly. The app will give you, in addition to our relationship, a way to adopt additional coping strategies when you're having trouble. Okay? If you get more distressed—maybe thinking about drinking, binge eating, or feeling overwhelmed with feelings—then access the app and immediately begin the process of getting back into a safer space. The app is just another tool to help you better manage your symptoms.

JOAN: It sounds complicated.

BETTY: Well, let's just take a minute to look at the app.

JOAN: Okay. I just want to be able to talk to you if I'm in crisis or if I feel like I'm losing it.

BETTY: Right. Again, what's the evidence that you have from our prior relationship up to this time that I'm not available to you?

JOAN: Oh, it's not that you haven't been available, although you do remember that you have cancelled appointments on me.

BETTY: Well, sometimes emergencies happen, and there have also been times where I've had to change my schedule around to be able to see you in an emergency. But the bigger issue is that, to the extent I'm able, you can count on me to be there for you, and no app is going to replace that.

JOAN: I do like the idea that maybe I could develop better skills and not be freaking out or getting myself in deeper trouble.

BETTY: So, the idea is to know that the app is there and it's available for you when you need it. At the same time, because you know it's there, you can immediately use the tools to assist in managing difficult situations. So can we agree that we are at a point where you're willing to try the app and see how it works?

JOAN: Yeah, that sounds about right.

BE TTY: I'd like to show you how this tool could work for you. First, let's develop a list of the situations and events that are difficult for you; we can call these trigger events. For each trigger event, let's talk about the coping strategies that tend to work for you—things like coping statements, meditation, and visualization of the ocean, which you've talked about before. We can then enter this information into the app so that you can have reminders for how to cope immediately in those moments when you feel overwhelmed.

[Betty and Joan spend the rest of the session talking about trigger events and identifying effective coping strategies that Joan can use. At the next session, Betty works with Joan to load this information into the app on her mobile phone. They do this on Betty's office desktop computer by simply following the instructions that come with the app. Joan has recorded some self-affirmations and lines of poetry that have helped her manage stressful events in the past. She has also downloaded a photo of her favorite beach. Joan enters all of this information into the app

Helpful Features in Phone- or Tablet-Based Mobile Applications

- Voice recordings of self-management strategies: people, places, things, mantras, sounds, proverbs, or other self-affirming tools that are personal destressors and support cognitive and emotional regulation and reorganization
- Visuals of soothing people, places, and things to access on demand
- Self-assessments with personalized feedback
- Relaxation exercises and recordings of guided meditations
- Contact list of the user's positive support system
- Interactive goal-setting tool customized to address the user's issues (e.g., identification of triggers, self-identified coping strategies)
- Voice recordings of counselors or others presenting coping reminders
- Peer stories of how others have coped with triggers
- Secured social networks to reduce the user's sense of being alone
- Reminders to the user not to post confidential or sensitive information on unsecure networks
- Secure texting and email functions to facilitate communication with counselors
- Help now/panic button for direct text/call to counselors or other treatment resources
- Camera/video to take pictures of stressful (or peaceful) contexts to send to counselors and/or to compile in a coping skills and resources kit
- Heart rate monitor to help the user regulate breathing
- Virtual (avatar) life coach or chum
- Journal entry function to log events and the user's responses

system, which then uploads it onto her mobile phone. Once loaded, Joan sees that the app includes a "My Action Plan" icon. When she clicks on this feature, she sees her trigger situations along with the associated coping tools that she has loaded into the system. Joan is impressed with the other features of the app, including a panic button as well as a "Get Connected" feature that allows her to hear from others who experience similar challenges in coping with strong emotional reactions. She also appreciates that, to increase her phone's security, she has to enter a user name and password that limits others' access to her information.]

BETTY: I'd like you to try out this app for a week or so, and when we see each other again, let's talk about what you think of it. I'll be interested in your feedback about using it.

JOAN: I'm willing to give it a whirl.

> **Master Clinician Note:** Technology-based treatment extenders do not replace standard treatment and should augment, but not supercede, the help and support of a counselor. In discussing with clients the use of a treatment extender such as the mobile phone app Betty asks Joan to try, emphasize that you, the counselor, will still be available. However, just as in standard treatment, you may not always be available on a moment's notice. Also be sure to discuss confidentiality and privacy issues related to the use of apps and other technologies, as well as responsibility and accountability for proper use. As with any therapeutic relationship, introduction of a new technology-based strategy needs to be transparent, clearly stated, and offered in the context of a trusting, supportive therapeutic alliance.

Betty and Joan sum up the session and agree on an appointment time for the following week. A couple of weeks later, Joan experiences a crisis. She is blindsided by conflict that she witnesses in a mutual-help program and later identifies the situation as a posttraumatic stress trigger. Rather than leaving the meeting, she decides to try the mobile app and to text Betty. Betty responds with a quick, supportive text message and schedules a brief telephone appointment with Joan for a couple of hours later. She encourages Joan to use the app, particularly with regard to regulating her emotions and getting more grounded. Later that evening, Joan sends a message through the app to Betty saying she is not drinking or engaging in other self-harming behaviors, has used the app, appreciates the brief phone contact with Betty, and has talked with another friend at the meeting, who offered her a different take on the confrontation that occurred at the meeting.

Part 2: A session after the crisis

Joan and Betty are meeting in Betty's office. After some initial settling in, Betty asks about Joan's experience in using the app during the crisis situation earlier that week.

BETTY: So, how's it going? I'm really interested to hear how this phone-based tool worked for you when you had that problem at the meeting earlier in the week.

JOAN: Well, Tuesday, when I almost lost it at the meeting, it was really nice to know that I had some connection to you through this app. When I get triggered, and especially when I'm totally not prepared for it, I really lose it. It's been a problem for me forever, as you know, in relationships. Using the app to help me get grounded really helped. I don't know how much of it was the content on the app and how much of it was just that I had an alternative to feeling out of control,

but I really appreciated hearing right then, in the moment, that you would get back to me—and I also appreciated that you then really did get back to me within an hour or two.

BETTY: Right.

JOAN: So, I didn't spiral. That felt really good.

BETTY: How did it feel for you to manage? You went outside just briefly, got yourself re-grounded, went back in, and stayed for the rest of the meeting, which is really something, especially given what you've been through in the past year. How'd it feel to master that?

JOAN: Wonderful. You know my history—I get so reactive in relationships and friendships.

BETTY: Yep.

JOAN: The idea that the app could be there to back me up was really great…the conflict just brought back all this childhood stuff about, "I can't handle this, nobody knows I exist, and I'm going to fall apart, and there's nothing I can do to help that," and I'm not in that place anymore.

BETTY: So, you felt safer and more able to manage your reactions.

JOAN: Well, the phone felt something like a lifeline. I know it's just a phone, and the app is just an app. But you're right, it is about safety and security for me—and with this, I have something to support me, to fall back on. One thing that really helped is the app's action plan and instructions about what to do and how to handle myself. I liked the idea that we could fine tune the app especially for me, and that we can continue to do so over time as my needs change.

BETTY: I would like for us to focus for a minute on how the app helped you change your thoughts when you saw the conflict. Did you feel the need to run away or feel unable to protect

Using an Action Plan Tool

An action plan tool allows a client (in this case, Joan), in concert with a counselor, to identify and add triggers related to a variety of circumstances, as well as coping strategies for each trigger, into an app. If Joan finds herself in the midst of an emotional, interpersonal, or physical trigger, she can access the tool to remind herself of the coping strategies she and her counselor identified together. The action plan tool thus allows clients to track their own responsivity via the tool, and data about responsivity can be used by counselors as well.

For example, Joan has identified phone calls with her mother, work overload, and lack of sleep as triggers for feeling overwhelmed. She has indicated that breathing exercises and access to her recorded self-affirmations help her settle down after a phone call with her mother. When Joan receives a call from her mother and begins to have the familiar feeling of her stomach tightening, Joan accesses the action plan tool on her phone. She goes through the brief breathing exercise and then listens to the affirmations she has recorded for this trigger. Afterward, she accesses the action plan tracker and records the trigger event, what she was thinking during the event, how she was feeling during the event, and what she did to cope. She then indicates how helpful her response was in calming her down on a scale of 1 to 10. These data are all tracked and logged for future reference.

In a discussion with her counselor, Joan acknowledges that seeing conflicts can also be a trigger for her to feel inadequate and shamed. She adds this trigger to the action plan tool and downloads an audio file featuring sounds of the ocean from the Web to include in her coping toolkit.

Texting and Confidentiality

Texting via cell phones and other devices is quick and convenient—but not secure. Some apps allow for more secure texting and instant messaging, such as demonstrated in this vignette, where text messages are encrypted before sending. However, encryption is not typical in standard mobile phone texting. It is best that, if texting is used at all for counselor–client communication, both parties agree beforehand to a code strategy so that texts divulge minimal information.

Advise clients that text messaging on mobile phones is not encrypted and can be intercepted by others using relatively inexpensive equipment. Text messages can be retrieved by anyone with access to either party's cell phone. Even if the message has been erased, it may still reside in the phone's memory card for a period of time.

yourself while you were in that situation? What I'm interested in you exploring is how those responses come up and cause thoughts and feelings of being unsafe. When you understand how those thoughts and feelings get triggered, you can then use the app to help you get grounded and refute negative thoughts and feelings.

[Joan and Betty discuss how, when an emotional or interpersonal interaction triggers a recollection of experiences in her past, Joan begins having feelings about being abandoned, alone, invisible, and unprotected. Behaviors resulting from these emotions lead to trouble, such as attacking others, running away, and self-harming.]

JOAN: I just like the idea that I can handle these situations better. They take such a toll on me, especially in relationships. It's really exciting to know I have options and that I can manage things myself, by using our relationship and the app on my phone.

BETTY: Fantastic. I'm really glad to hear it. It sounds like you're starting to see how this technology can help you. It doesn't interfere with or take away from our relationship, but it can support what we do and put you in charge when it comes to working through tough situations.

Master Clinician Note: To help personalize Joan's action plan tool, her counselor could ask Joan to use the app to document each time she feels overwhelmed with feelings or experiences a posttraumatic stress reaction. She might do this, for instance, for a month. The creation of a marker could then elicit an immediate set of quick self-assessments (e.g., ecological momentary assessments [EMAs]) to gather more details about the event:

- What was the situation that initiated the reaction?
- What thoughts was Joan having?
- What feelings was she having?
- What did she do?
- How did she feel about her response?

EMA data can help Joan and her counselor develop an even more effective action plan for triggers. This type of real-time treatment approach could be very helpful in building an effective collaboration plan.

JOAN: It occurs to me that not having many resources had a lot to do with why I drank all these years. The only way I knew to cope was to drink, but with what I've learned in AA, and what I've gotten from you and the app, I'm learning that I really can control life and my emotions.

BETTY: So you can get through it.

JOAN: Yeah. But still, it's so important for me to know that you were there.

BETTY: Yeah. I'm not planning on going anywhere.

JOAN: You'd better not.

Part 3: Helping clinicians buy in to the use of mobile phone/tablet apps

Betty and four peers meet for group peer supervision. Betty describes how successful the smartphone app has been in helping Joan. Liz, who has also used the app with several clients, offers support.

BETTY: I went to a workshop on helping clients with co-occurring posttraumatic stress and substance use disorders engage more readily in the use of coping skills. In stressful situations, particularly if they also have a history of psychological trauma, they can easily spiral into self-defeating and negative behaviors that alienate them from others. In the workshop, the leader introduced the idea of using computer-based apps to help clients stay more grounded in situations

How To Build Client Buy-In to Adopting Technology in Treatment

- Closely monitor the therapeutic alliance, as you would with any change that might potentially affect the treatment relationship.
- Address what the technology can and cannot do by using clear communication and ensuring transparency. Discuss the client's expectations of how the technology will augment treatment.
- Ensure that the technological application meets client needs.
- Ask for the client's suggestions about how the technology-based tool can be used, eliciting feedback about the tool before actually integrating it into treatment. How can the app be helpful or not so helpful?
- Do some test runs with the tool so that the client knows its purpose and how to use it before incorporating the app into daily use.
- Pay attention to client feedback about interest in using the tool, understanding of instructions about how to use it, perceptions of its use, and expectations about the results of using the app.
- Ensure that the technology is accessible to the client. For instance, does the client have a mobile phone? How does the client normally use the phone, and what would be helpful in terms of its use? What kinds of training might the client need to use the app effectively? Are the language and functioning of the tool or application appropriate for the client? Does the client understand the costs that may be associated with using the technology?
- Explain how the information and data gathered from the technology-based tool will be used in treatment. Discuss ways that this information can build collaboration and self-management in the treatment environment to help the client achieve greater autonomy.
- Clarify who has access to the technology and the information it may collect about the client. What data can the clinician access? What data can the client access? Who authorizes this access, and what is the process for obtaining permission? How can this information be integrated with other records? Can information be shared with another clinician in the case of transfer of care? How long is this information stored? Is it encrypted in resting state? What information, if any, will be integrated into the client's EHR?

Advice to Clinical Supervisors and Program Administrators: Helping Counselors Buy In to Using Mobile Phone Apps as Treatment Supports

- Help counselors see the value of the app for themselves and for their clients.
- Focus on how the app can enhance or augment counselors' jobs—not replace them!
- Elicit counselor feedback about the application and how it can potentially be used; also request feedback on whether they anticipate that it will be helpful or unhelpful.
- Offer training and technological assistance for use of the app with clients.
- Make shared decisions about adopting technology within your behavioral health agency.
- Clearly define measures of success so counselors can monitor effectiveness.

where they otherwise might feel unsafe. When I got back, I looked for clients in my caseload who meet this profile and who might be willing to try an app I found through the workshop.

TED: It's an interesting idea. It seems that the key is your belief in the app's ability to help; that made it a lot easier to get buy-in from the client. I think I would need to know more before I could try to convince someone else to use it.

ERIC: I'm also impressed by how well your client has done using this app, and I'd like other clients to use it as well. I think I'd like to learn more about different apps and how to use them—but I'll need help from you and some coaching on how to actually incorporate them into treatment.

BETTY: Maybe we could set up some training sessions. Along with training, you'll really just need to try it out for yourselves. That's what made me a believer. There are lots of other ways to apply apps in a community behavioral health services program like ours—not just with people on the personality disorder spectrum. Of course, we need evidence that an app is effective. Anyone can put an app up on the Web, but it doesn't mean that its effectiveness has been researched.

Master Clinician Note: Other possible uses of apps in behavioral health include:

- As recovery support tools that link people in recovery to virtual support communities; personalized reminders of people, places, and things to avoid; favorite slogans in mutual-help groups; and a variety of supportive Web sites.
- As tools for monitoring and tracking patterns in specific areas of health (e.g., blood pressure, nutrition, blood sugar levels, alcohol consumption, exercise).
- As tracking tools to set personal goals and monitor progress toward them.

REBECCA: I don't know. Will people actually use it when they're in a crisis? It just sounds a little weird to think of someone saying, "Oh, I'm in a crisis, let me use my smartphone app."

LIZ: I thought exactly that. But I've been using this system with someone who has an extended history with the agency. From what I've noticed over the past couple of months, the number of emergency calls I get from him has gone down. Now, he's more likely to come in and tell me he had a crisis but resolved it on his own. When he begins to feel strong emotions or is in a crisis, he can use the app. The app sends him supportive prompts and has a panic button that will alert me when he's feeling overwhelmed and let me know that I should reach out to him.

Early on, he did hit the button to connect with me, but it wasn't any different from if he called or paged me and got me or whoever was on call. Over the past several weeks, we've done a debriefing after each of the episodes that he's had, and he's feeling really good about being able to

ride out episodes of emotional dysregulation successfully, whereas before, he felt overwhelmed in situations that would typically trigger him. He was able to use the app to navigate his way through the situations on his own, but he knew that I was available through the panic button.

He still becomes overwhelmed with feelings at times and needs support to overcome self-defeating thoughts, but he's been able to stay at work or engaged in a conversation instead of storming out of a situation or getting angry. There's a real difference in his capacity to turn to using the app rather than getting explosive. We may want to consider using this app as a team and making it an integral part of our treatment efforts, not just an isolated experiment.

TED: That sounds great, Liz, but what's it going to cost? Does the client have to pay for the app? Who buys the smartphones for people to use?

LIZ: Well, a lot of people already have smartphones today. The other cost is having a data plan that allows people to access the Internet. So, for most people, the cost is minimal.

Master Clinician Note: The difference between smartphones and feature phones is not hard and fast, but smartphones tend to have greater screen size and resolution, higher processing power, and a more powerful and versatile operating system. Many apps require a smartphone. However, technology is rapidly developing, and features and options are quickly evolving toward feature phones having the processing power once reserved for cutting-edge smartphones.

REBECCA: That's great, but I'm not so sure that all our clients will grasp the technology.

LIZ: This just requires using a mobile phone. This is really easy.

BETTY: Very easy.

TED: What about me? I'm not very tech savvy.

BETTY: You don't need to know much of anything that you don't already know. Can you operate a mobile phone or a laptop?

TED: Most of the time.

LIZ: This app was designed to be very user friendly. There's a program that you use on your desktop computer to help the client customize the app so that it helps them respond to triggers with positive coping skills. The beauty of this is that the clients, with a little help from you, come up with their own trigger events, and they devise their own repertoire of coping responses. It's really personalized, not a one-size-fits-all approach. You can update applications on your desktop, or in some cases, the client's computer or even their mobile phone—any system that can access the app. The portability of mobile phones and tablets means that clients could carry coping tools with them wherever they go, even outside the treatment setting, and access them anytime, anywhere. Mobile technology like this could really enhance and extend the work we do.

REBECCA: You actually made a very good pitch.

BETTY: Are there concerns? Does anybody else have issues?

REBECCA: How do I know that it's actually working?

LIZ: Well, it's really up to the client whether to use the device. That's where it becomes really important for clients to buy in to the idea of using the app.

REBECCA: Would I have to remind clients to use it or anything?

BETTY: Like any other treatment effort, you work with the client to help them get the most benefit. As people get comfortable with the app, it becomes more and more of a regular process. You might raise the question of how your client is using the app periodically when you have sessions, but my experience has been that clients want to tell me how it has worked for them.

TED: How do you download the app? Do you plug the client's phone into your computer?

BETTY: Yeah, or you can download it wirelessly by searching for the app through the client's wireless provider storefront. We can even set it—with the client's permission and informed consent, of course—so that you get a flag on your computer when the client is using it. It's client driven; it's there for clients to use when they need it. The client identifies the triggers and the coping skills that will help. The app lets clients build a list of resources, affirmations, supports, and alternatives that are uniquely theirs and are constantly at their disposal. So, every time a client successfully uses the app, they're affirming their own sense of agency and accomplishment.

TED: Are data transmitted back to us? How do we use this? How do you use it in treatment?

> **Master Clinician Note:** Advise clients using apps that may contain confidential information to use a lock and password system on their mobile phone or tablet. Otherwise, anyone with access to the device can use the app and read the content.

BETTY: If your client agrees, you can be notified every time they open the app. Of course, we don't know how well it works until we see the client and ask. But we do know that it's being used. So, when the client comes in, you can say something to the effect of, "Well, I see you

Examples of Ready-To-Use Behavioral Health Apps

- **DBT Diary Card and Skills Coach:** Available online (http://itunes.apple.com/us/app/dbt-diary-card-skills-coach/id479013889?mt=8), this customizable dialectical behavioral therapy (DBT) orientation app offers a skills reference guide, an emotions reference guide with tracking capability, and a behavior reference guide with tracking capability.
- **DBT Diary:** Available from PsychDataSystems, LLC, this app records urges, emotions, and skills used. Clients can review their diary entries at any time and email diary reports to counselors.
- **DBT Coach:** Available online (http://www.diarycard.net/), this interactive mobile phone app for individuals with borderline personality disorder and a substance use disorder is designed to support and enhance DBT skills.
- **PTSD Coach**: Available online (http://t2health.dcoe.mil/apps/ptsd-coach), this app was collaboratively developed by T2 and the VA National Center for PTSD to emphasize self-assessment, symptom management, and access to support.
- **Breathe2Relax:** Available online (http://t2health.dcoe.mil/apps/breathe2relax), this portable stress management tool with hands-on diaphragmatic breathing exercises includes graphics, animation, narration, and videos.
- **Stress Tracker:** Available at no cost through iTunes (follow the link at http://otswithapps.com/2012/06/25/stress-tracker-app-for-ios-free-and-android/), this cognitive–behavioral therapy app uses mindfulness principles and emphasizes stress management.

opened the app twice last week," and then you talk about what happened. Perhaps you'll have the opportunity to further customize the app so that it's even more responsive next time.

LIZ: Right. I think the best feedback I've gotten is when my client comes in and says, "Oh, by the way, I used the app twice last week, but I didn't call you because I didn't need to."

REBECCA: That sounds pretty convincing, but one thing we're not talking about is that it sounds like this program is going to replace what I've spent years learning to do.

LIZ: Not at all. It's an appropriate resource and extension—but it's not treatment. It's an adjunct, a support. This app doesn't replace the treatment you provide, just as the treatment you provide doesn't only include phone-based counseling. This is just another therapeutic tool; it will never replace the type of therapy that a human counselor can provide. I think we're a long way from when treatment will be achieved by plugging into a computer or mobile phone. There is a lot that we, as providers, can offer our clients that a smartphone app just can't. But there is one thing a smartphone app can do that we can't—be with the client 24 hours a day, 7 days a week.

TED: Good point.

REBECCA: It sounds like it may help in a lot of situations. I'm willing to give it a try.

LIZ: Yeah, this is a chance to try it out. Let's reconvene after a month of each using it on a trial basis with a few clients, and we'll talk again about what we think and how to proceed.

Master Clinician Note: In general, the discussions in this vignette relate to the positive aspects of using mobile apps. However, the possible cons, or pitfalls, for each client or situation need to be taken into consideration. For example, in this particular vignette, Joan is willing to go along with her counselor's obvious interest in giving the app a try, but because Joan may be more sensitive to stress, it is not difficult to imagine some aggravating technological difficulty (e.g., running out of battery power), combined with sudden real-life stressors, increasing rather than decreasing the stress of a difficult situation for Joan. In-session rehearsals focused on how to manage or respond to the likely occurrence of app or other technological problems are warranted. Remember that what may be beneficial for one client may not be for another. For example, the use of an app could worsen a client's tendency to isolate or avoid social interactions. You must always assess the appropriateness of using any app in the context of the client's perspectives and possible reactions. (See also Part 2, Chapter 2, "Determining the Appropriateness of TAC for Clients.")

Part 2: An Implementation Guide for Behavioral Health Program Administrators

Part 2, Chapter 1

IN THIS CHAPTER

- Introduction
- Adoption and Sustainability Considerations
- Technological Capacity Considerations
- Budgeting Considerations
- Vendor and Consultant Selection Considerations
- Data Management Considerations
- Privacy and Confidentiality Considerations
- Regulatory Considerations

Introduction

This chapter targets behavioral health program administrators who wish to adopt or expand technology-assisted care (TAC) in their organizations, as well as clinical supervisors and behavioral health service providers who work in small practices and fulfill administrative roles. It covers programmatic, technological, budgeting, vendor selection, data management, privacy and confidentiality, and regulatory considerations likely to arise during adoption of technology-based interventions. As discussed in Part 1, with technology comes great potential to expand access to behavioral health services and to improve outcomes; however, TAC also creates new challenges for administrators.

TAC offers an array of opportunities in the prevention and treatment of mental and substance use disorders. It has the potential to reach historically underserved populations, improve overall quality of care, and enhance the efficiency and effectiveness of service delivery. Specifically, the use of technology has been demonstrated to improve access to services for diverse and potentially underserved groups, such as people who are geographically isolated (Finfgeld-Connett & Madsen, 2008; Griffiths & Christensen, 2007), women (Finfgeld-Connett & Madsen, 2008; Lieberman & Huang, 2008; Spek, Nyklicek, Cuijpers, & Pop, 2008), people who are Deaf and hard of hearing (Moore, Guthmann, Rogers, Fraker, & Embree, 2009), veterans (Barnwell, Juretic, Hoerster, Van de Plasch, & Felker, 2012; Godleski, Darkins, & Peters, 2012; Koch, 2012), substance use disorder treatment clients (King et al., 2009), older adults (Ramos-Ríos, Mateos, Lojo, Conn, & Patterson, 2012), and college students (Saitz et al., 2007). Telephone- and Web-based services have been shown to be particularly useful to people with demanding schedules (Mohr et al., 2010), and video conference-based services have achieved favorable outcomes in a variety of therapeutic formats with diverse populations (Backhaus et al., 2012).

Technology can also improve the quality and effectiveness of care. It provides an efficient means of intervening with individuals at early stages of risk for problems, such as with people who use alcohol but are not yet dependent (Postel, de Jong, & de Haan, 2005; Riper et al., 2008), and it presents new opportunities to manage care over time for people with chronic conditions (Drake & Bond, 2010; Wisdom, Ford, & McCarty, 2010). Although the cost-effectiveness of TAC has not been established (Tate, Finkelstein, Khavjou, & Gustafson, 2009), there is some evidence that Web-based therapy can be equally as effective as in-person care in building a strong therapeutic alliance (Abbott, Klein, & Ciechomski, 2008; Hanley & Reynolds, 2009), helping people change behaviors (Webb, Joseph, Yardley, & Michie, 2010), and reducing negative symptoms (Barak, Klein, & Proudfoot, 2009; Sloan, Gallagher, Feinstein, Lee, & Pruneau, 2011). The use of guided mutual help or social networking as an adjunct to professional services presents new avenues for recovery support with minimal clinical intervention (Farvolden, Cunningham, & Selby, 2009). In particular, Web-based and other computerized treatments for depression have demonstrated effectiveness, especially when coupled with support from a counselor (Andersson & Cuijpers, 2009). Thus, TAC can address some pressing needs in behavioral health organizations, including expansion of access to services and enhancement of the efficiency of care.

Potential Benefits of TAC

- Expand access to prevention and wellness information.
- Extend clinician availability.
- Reduce the burden on clients associated with repeating intake and assessment information.
- Increase the accuracy of reporting risky behaviors.
- Reach populations that have traditionally been difficult to engage.
- Present opportunities for remote registrations and preregistrations.
- Improve anonymity for clients in small communities.
- Increase access to specialists.
- Connect clients to others with similar problems.
- Tailor services to meet individual needs and preferences.
- Give clients flexibility in how and when to acquire new information or skills.
- Enhance consistency of service delivery.
- Improve frequency and timeliness of care.
- Focus clinicians' time on the clients most in need of intensive services.
- Improve interagency care coordination.
- Increase cost-effectiveness of services.
- Enhance access to clinical supervision.

TAC also presents new opportunities for clients to direct their own care. Technology can provide expanded accessibility for individuals who are isolated from services and support outside of scheduled sessions, offer new avenues for support, and provide opportunities for self-paced intervention. It allows for the provision of immediate feedback to clinicians, clients, and administrators on the outcomes of services at both individual and aggregate levels (Drake & Bond, 2010). Symptom monitoring systems that feed client data back to clinicians present options for tailoring services to be more responsive to the real-time challenges clients face. Web-based performance monitoring systems that provide immediate ratings of clients' perceptions of care are useful in more quickly addressing client concerns (Forman et al., 2007). Medication compliance technologies and remote client monitoring systems can improve medication compliance and allow remote monitoring of medication reactions (Center for Technology and Aging, 2010).

TAC can expand the tools available to coordinate services across providers and organizations. For example, using teleconferencing to coordinate services for an adolescent and his

or her family, who are involved across multiple systems spanning various geographic areas, can improve communication among providers, enabling them to present consistent expectations for the adolescent and family members. In addition to enhancing direct services, TAC offers new ways to train and supervise the behavioral health workforce (Hoge et al., 2007; Institute of Medicine, 2006). Innovations, such as self-paced cognitive–behavioral therapy training combined with Web conferencing and the use of digital recordings to perform clinical supervision, demonstrate the potential of Web-based training as a flexible and cost-effective approach in real-world settings (Byrne & Hartley, 2010; Weingardt, Cucciare, Bellotti, & Lai, 2009; Weingardt, Villafranca, & Levin, 2006). Telesupervision can be especially valuable in rural areas, enabling clinicians to access expertise that is not otherwise available in their local communities and improving access to supervision in crisis situations (Kanz, 2001; McAdams & Wyatt, 2010; Wood, Miller, & Hargrove, 2005).

As with any new opportunity, the adoption of new technology also presents administrative challenges. Despite the potential to improve access for some populations, TAC may involve greater risk for dropout than traditional in-person services (Andersson, Carlbring, & Grimlund, 2008; Farvolden et al., 2009), and disparities in access to technology resources may accentuate the gap in treatment access for people at lower income levels (King et al., 2009). The use of TAC in the behavioral health field introduces new challenges in traditional aspects of client–provider interaction, such as building a therapeutic alliance (Shore, Savin, Novins, & Manson, 2006). Furthermore, TAC creates unique ethical and legal concerns that you, as a behavioral health program administrator, will need to address (Mallen, Vogel, & Rochlen, 2005). These challenges range from responding to situations in which clients pose a danger to themselves or others to implementing systems that ensure the confidentiality and privacy of clinical information shared through emails or text messages (Mallen, Vogel, Rochlen, & Day, 2005).

Regulations and financing policies have been slow to keep pace with changing technology. This can create confusion and risk as you attempt to implement and finance TAC. Although federal agencies and professional licensing organizations have begun to address licensure portability and cross-jurisdictional certification, not all regulatory agencies or funders have addressed such issues as licensing standards dictating in-person contact, signatures of acknowledgment, and geographically bound service jurisdictions (McGinty, Saeed, Simmons, & Yildirim, 2006).

Examples of Comprehensive Web-Based Treatment Programs

Comprehensive Web-based programs, such as the following, offer online recovery services that incorporate screening and assessment, live group counseling and peer support groups, individual counseling and coaching, journaling, secure email, and chat rooms:

- **Anxiety Online** (https://www.anxietyonline.org.au/default.aspx) is a comprehensive Internet-based treatment clinic for people with anxiety disorders funded by the Australian Department of Health and Ageing. The site provides information, assessment, therapist-assisted treatment, and mutual-help programs.
- **Prochange.com** (http://www.prochange.com) is a set of online behavior change programs targeting a range of populations and problems, including stress, weight management, domestic violence, depression, smoking cessation, medication compliance, and teens in relationships. The programs are empirically based and use self-directed approaches as well as coaching.

TAC introduces new challenges and opportunities related to managing and supervising the behavioral health workforce. In addition to clinical and cultural competence, technological competence is becoming more important for clinical staff members (Midkiff & Wyatt, 2008). Technology also offers new avenues for supporting the workforce through Web-based or software-based training, decision support, and video conferencing (Institute of Medicine, 2006). The use of technology to deliver services in your organization requires that you have a working knowledge of the range of available technologies, including the strengths and weaknesses of each and the technological capacity each requires (e.g., bandwidth, special equipment, data storage). You must develop organizational expertise in risks related to privacy, confidentiality, and security and in the protections needed to minimize organizational liability and manage those risks.

Nonetheless, the challenges presented by TAC are no more daunting than those encountered when adopting other innovations. Many of the same tools and techniques that you may well routinely use to plan for and implement new service delivery approaches are suited to planning for and adopting technology-mediated service delivery. This chapter provides behavioral health program administrators, as well as clinical supervisors and providers in smaller agencies who may bear certain administrative responsibilities, with information they need to help thoughtfully navigate the risks and challenges associated with the use of technology to deliver behavioral health services.

Adoption and Sustainability Considerations

Technology is a means for delivering services rather than an end in itself. Therefore, clear goals for introducing technology-based interventions are essential. This section outlines a process for planning for and monitoring the success of TAC implementation; it addresses who should participate in TAC planning, strategies to consider when planning TAC for specific populations, and other considerations associated with the use of certain technologies. This section also discusses selection and training of staff members to incorporate TAC into their practice, as well as the provision of adequate supervision for TAC.

The process of considering and adopting technological innovations involves identifying the need or problem to be addressed, assembling a planning team, designing the service delivery process, selecting the technologies that best support service delivery, implementing and continuous monitoring, and maintaining process improvement. As with all new programs, thoughtful implementation that includes feedback from relevant stakeholders can help overcome implementation barriers and enhance the success of the project. A wide range of stakeholders—including administrators, supervisors, counselors, clients, and technology experts—should be involved in developing TAC processes. Behavioral health service providers who plan to incorporate TAC into their practice may not necessarily be technology experts, but they should have the ability to conceptualize how technology can be incorporated into service provision, and they need to be inquisitive about the use of technology to support care.

Strategic Goals

Strategic questions, such as the potential for specific technology-based approaches to promote partnerships with primary healthcare providers or other key community partners, will shape the direction of planning and elucidate a central role for administrators in establishing the overall goals for any given technology

intervention. The adoption of technology for staff supervision or training can assist your organization in reaching strategic goals related to staff recruitment or retention, and it can also help address process improvement challenges. Issues of positioning in the market, competitive advantage, improvements to customer service, and adding value for purchasers also drive the establishment of clear goals.

Planning Team

To foster successful planning, involve stakeholders with a range of skills and perspectives and focus on improvements in clinical care and business processes. Your planning team must make many decisions about the clinical goals of the TAC your agency provides; the content of TAC intervention that will be most responsive to the needs of the population your agency serves; the particular technologies that best complement TAC goals; and the technological, clinical, and administrative infrastructures required for implementation. Exhibit 2.1-1 outlines roles and responsibilities of various stakeholders in the technology adoption process.

Population-Specific Considerations

Most of the same considerations regarding cultural responsiveness and appropriateness that apply to in-person interventions also apply to technology-based interventions. In addition to the issues that you already typically consider, it is important to think about the suitability of various technological approaches to the strengths and needs of your intended service population. For example, you should avoid text-based approaches in situations where the target population has limited English proficiency or limited literacy skills, and you should establish clear protocols to assess literacy rather than relying on professionals to assess this skill without formal support. Interventions that include transmission of images may be sensitive for certain cultural and ethnic groups, and digital applications intended to serve older adults must have options for large text sizes and follow elder-friendly digital design principles. Certain groups, such as African Americans, Latinos, and young adults, are more likely than older Whites to use mobile devices as their primary source of Internet access, whereas people over the age of 65 and those with lower incomes are least likely to own a smartphone (Smith, 2010; Smith, Rainie, & Zickuhr, 2011).

Certain populations may significantly benefit from the use of technology to deliver services. For example, technology offers opportunities to improve treatment services for individuals who are hearing impaired by overcoming some challenges in communicating with hearing individuals, expanding the mechanisms for Deaf people to communicate with each other, and offering enhanced access to culturally specific treatment and support (Pollard, Dean, O'Hearn, & Haynes, 2009). It is also important to consider how much technical support your agency will need to implement a particular technological approach based on the problems and needs of the populations to be served. This will drive your decisions about which aspects of the intervention to automate and which aspects counselors should direct (Andersson, Carlbring, Berger, Almlöv, & Cuijpers, 2009). Thus, it is crucial to conduct a review of the strengths and needs of the population to be served and to include former and potential clients in the planning and implementation process. Doing so will help you match TAC to their needs and ensure greater usefulness to the group being served (Forducey, Glueckauf, Bergquist, Maheu, & Yutsis, 2012).

Factors Influencing Successful Adoption of New Practices

Implementing new practice patterns or technologies can be challenging for organizations.

Exhibit 2.1-1: Responsibilities of Stakeholders in the Technology Adoption Process

	Establish Goals and Team	Design or Refine Service Delivery	Select Technology and Field Test	Implement	Monitor
Administrators	• Define a strategic plan. • Identify opportunities and challenges. • Convene a team. • Assess risk and regulatory landscape. • Develop a business plan, including funding sources and budget. • Consider an evaluation component.	• Ensure availability of team and other design resources.	• Plan for funding and sustainability. • Identify performance monitoring and evaluation strategies.	• Ensure availability of needed resources.	• Review reports and monitor success of implementation and evaluation.
Clinicians and Supervisors		• Conduct workflow and workload analysis. • Communicate with clinical staff about needs and preferences.	• Field test the application. • Develop program materials and consent forms. • Develop supervision and training protocols. • Provide troubleshooting and support.	• Discuss implementation expectations with clinical staff. • Conduct supervision. • Provide troubleshooting and support. • Monitor fidelity to evidence-based practices.	• Monitor staff and client/ consumer feedback.
Technology Experts		• Expose clinical staff to new tools. • Present technology and delivery alternatives.	• Price out alternative approaches. • Coordinate evaluation of technology options. • Troubleshoot technology challenges during testing. • Analyze privacy and security features.	• Coordinate purchase and installation of hardware and software.	
Clients and Consumers		• Consult on client/ consumer needs and preferences.	• Test application. • Review consents and other program materials.	• Provide feedback on ease of use and effectiveness.	• Review ease of use and effectiveness.

However, research in the area of implementation offers some useful lessons. Individuals tend to adopt an innovation when they believe there is a need for the innovation, see the benefit in the new practice, and have the skills and confidence to implement the innovation (Meyer, Clarke, Troke, & Friedman, 2012). You can support clinicians by identifying how technology can be used to solve problems that are relevant to the key stakeholders. You should also consider providing training and support for, and involving clinicians in, service planning processes (Meyer et al., 2012). When adopting new technologies, the level of support from top management and the degree of assistance and support available to service providers are critical. (Jeyaraj, Rottman, & Lacity, 2006; Meyer et al., 2012). For example, ensuring ease of access to the equipment, having adequate support for operating the technology, and providing sufficient time for clinicians to learn the technology can promote the successful adoption of new practices. Clinicians and supervisors on the planning team must think carefully about how the introduction of TAC will change the flow of work for staff members (McGinty et al., 2006); they must also consider how to ensure that efficiencies are gained, or at least maintained, as the agency introduces TAC to the workflow. Successful implementation requires a well-developed business plan and identification of challenges before creating a mechanism to measure success (Meyer et al., 2012).

The Network for the Improvement of Addiction Treatment (NIATx, 2013), a division of the University of Wisconsin's Center for Health Enhancement Systems Studies, developed an effective process improvement system. NIATx identifies five principles for effective implementation of change:

- Focus on an important problem to be solved by implementing the change.
- Identify a change leader.
- Look to other organizations for ideas.
- Pilot the change on a small scale and make adaptations prior to large-scale implementation.
- Understand and involve clients in the change process.

Implementing a Therapeutic Workplace

A Web-delivered, employment-based intervention for people who inject drugs called the Therapeutic Workplace has reliably produced marked reductions in drug use and underscores the potential of long-term behavioral workplace interventions to be as therapeutic as long-term therapeutic agents in the treatment of substance dependence. The intervention computerizes a contingency reinforcement program that requires medication compliance for the client to be allowed to attend work and can also increase or decrease payment for the work, depending on abstinence as determined by urinalysis.

Source: Holtyn et al., 2014.

The Substance Abuse and Mental Health Services Administration's (SAMHSA's) Strengthening Treatment Access and Retention State Initiative (STAR-SI) supported NIATx and others (Molfenter, Boyle, Holloway, & Zwick, 2015) in conducting case studies of the use of telemedicine in addiction treatment. In each case study, treatment providers identified factors impeding or facilitating the sustainability and use of TAC, which they were most interested in conducting via videoconferencing and mobile devices. Impediments included costs, lack of reimbursement, unease with technology, lack of models to follow, and concerns about confidentiality. Facilitating factors included local success stories about TAC, champions of TAC, and a strong need to increase access and improve services. One notable STAR-SI effort is the Recoveration program (https://www.recoveration.org), which provides

information, support, and distance counseling to consumers (Molfenter et al., 2015).

Staff Recruitment and Training

Counselors who have strong in-person counseling skills will not necessarily be skilled in delivering TAC. Therefore, assessing the technological competence of the workforce and helping staff members develop a sense of self-efficacy with the technology will help increase the success of technology adoption (Andre, Ringdal, Loge, Rannestad, & Kaasa, 2008; Wisdom et al., 2010). As with any new practice, clinicians need to establish competence and develop self-efficacy with the intervention prior to engaging in service delivery (Andre et al., 2008; Maheu & Gordon, 2000; Midkiff & Wyatt, 2008).

To build competence and confidence, behavioral health service providers must have the opportunity to practice integrating services and technology prior to their first client interactions (Abbott et al., 2008; Wood et al., 2005). This might include hands-on practice with the technology before using it with a client, as well as supervised interactions with clients using the technology prior to independent activity. Providers must be comfortable enough with the technology to be able to answer clients' questions, talk about potential privacy and security risks, and troubleshoot technological problems with clients (Ragusea & VandeCreek, 2003). An alternative approach is to use technology that has built-in support and can assist with training clients.

Building competence in staff members should be an ongoing activity. The skills of clinicians and other staff members involved with the technology should be reassessed regularly, and you should have plans in place to institute additional training and support to help staff members who may struggle with the technology or experience new concerns as their competence with the technology advances. Professional associations, such as the American Psychological Association, have begun to develop specific guidelines for the ongoing evaluation of providers' skills and their effectiveness. Exhibit 2.1-2 outlines some of the technological competencies required to implement TAC in behavioral health services.

Clinical Supervision of Technology-Based Care

The challenges that emerge in the recruitment and training of clinical supervisors to oversee the delivery of TAC are similar to those that arise in preparing clinicians to deliver traditional care (Mallen, Vogel, & Rochlen, 2005). Supervisors need to have advanced knowledge of the technology, experience in delivering TAC, well-developed strategies for building relationships using technology, an understanding of the common ethical concerns related to its use, and experience in identifying and averting crises among clients participating in TAC. Additional competencies are required when clinical supervisors use technology to deliver supervision and when they supervise clinicians who are conducting TAC.

Technology-Mediated Supervision

The use of technology increases the flexibility and accessibility of supervision and presents new avenues for clinicians in remote areas to seek support and expert advice (Abbass et al., 2011; Barnett, 2011; Byrne & Hartley, 2010; Kanz, 2001; Murphy & Mitchell, 1998; Wood et al., 2005). Additionally, using technology to deliver supervision can reduce the stress associated with travel and provide an opportunity for people working in similar specialties to share expertise despite distance (Marrow, Hollyoake, Hamer, & Kenrick, 2002). A variety of tools can be used to deliver supervision, including telephone conferencing, Web cams to record clinical sessions that are discussed in supervision later, email exchanges,

Exhibit 2.1-2: Technological Competencies Required of Clinical Staff

Knowledge	Skills	Attitudes
• How the technology works • Common technology terms • Ways that technology can enhance practice • Common ethical challenges related to use of technology • Privacy, confidentiality, and informed consent issues with use of the technology, including the Health Insurance Portability and Accountability Act (HIPAA), Title 42, Part 2, of the Code of Federal Regulations (CFR), and other legal requirements • Security risks that clients and providers may encounter and steps to minimize risks • Emoticons and acronyms clients may often use and boundary concerns surrounding their use in a professional relationship • Policies on scope of practice, coordination of care, security, informed consent and privacy, mandatory reporting, handling emergencies, keeping electronic records, security, and addressing privacy or security violations	• Access the Internet for information • Communicate with clients and peers using technology • Use technology with ease • Provide basic troubleshooting • Interact with others effectively using technology (e.g., video conferencing users understand how to frame the picture and look into the camera; text-based communication users can convey emotion in writing) • Minimize privacy, confidentiality, and security risks to clients • Establish and maintain relationships using technology • Have effective writing skills, especially regarding emoticon and text etiquette when using text-based communication in the context of professional relationships • Build referral relationships in the community, including emergency referrals	• Willingness to learn and use technology to support practice • Interest in adoption of new practice techniques • Willingness to work through technology interruptions and glitches • Recognition of the importance of clients and counselors always understanding what the other means when using symbols (e.g., counselors state how they interpret clients' use of symbols and ask clients to confirm accuracy; they clarify meanings of any symbols they themselves use to avoid misinterpretation)

online discussions or chats, store-and-forward technologies, and video conferencing. Some technologies are better suited than others to individual and organizational strengths, needs, and resources; therefore, supervisors should think critically about how technology may be most useful for the needs of the individual or group participating in supervision. It is also important to consider how the use of technology will improve care (Stamm, 1998). Use of email or Web-based supervision may improve access to and quality of care in rural areas or in cases where specialty knowledge is required, but it may detract from quality in areas where adequately trained supervisors are plentiful and in-person contact is accessible.

State licensing regulations may restrict or impose specific requirements on the delivery of supervision using technology. In some cases, it may be useful to supplement technology-mediated contacts with in-person supervision (Vaccaro & Lambie, 2007). These blended approaches that combine in-person contact, video conferencing, email, and asynchronous discussions provide flexibility in responding to the unique learning preferences of the supervisees and afford supervisors the ability to tailor their methods of communicating various types of information (Wood et al., 2005).

Clinical supervisors must communicate clearly and encourage supervisees to raise questions about the meaning of the communication,

Examples of Technology-Supported Clinical Supervision

Clinical supervisor's supervision, Phoenix House: This supervision approach consists of monthly telephonic supervision sessions with 10 to 15 clinical supervisors focused on issues arising in clinical supervision.

Web-based treatment and cybersupervision, Treatment Alternatives for Safe Communities Illinois: Clinicians conduct live counseling sessions with a laptop equipped with a Web cam. The clinical supervisor views the session live and meets online with the clinician after the session using video conferencing or telephone to debrief the session.

Use of store-and-forward technologies for recording sessions to be used in supervision: Store-and-forward products are available that allow the clinician to record live sessions with a remotely connected client, tag the recording prior to or during the supervisor session, and then immediately access the session recording. The recording can be played during a tele-supervision session where the remote supervisor can stop and start the recording on a portion of the screen while interacting with the supervisee on another portion of the screen using live video conferencing.

especially when using text-based communication (e.g., email) where visual cues are not available. Supervision benefits from use of a more structured format with clear guidelines, responsibilities, and expectations (Graf & Stebnicki, 2002). However, many of the same considerations that arise with using technology to deliver care are also present for technology-mediated clinical supervision. Clinical, legal, and technological training and support are essential for averting frustration and ensuring the effectiveness of supervision (Abbass et al., 2011; Maheu, McMenamin, & Pulier, 2013; Marrow et al., 2002; Vaccaro & Lambie, 2007). Because supervision relies on an exchange of clinical information across participants, supervisors and clinicians must be well versed in strategies that minimize risks to clients associated with data integrity, data security, privacy, and confidentiality.

As with any exchange of clinical information, your agency should have a policy to inform clients of the ways in which the supervision process will use and protect their data. Give clients a chance to consent to their information being shared (e.g., teleconferencing) and explain how the information will be used (Abbass et al., 2011; also see the Master Clinician Note on p. 52). Clinical supervisors delivering supervision via technology also need to be well versed in the state regulations dictating the delivery of technology-mediated supervision, and they must have an understanding of the risks when state regulations do not specifically address the use of technology. For a checklist of competencies for supervisors conducting supervision of TAC and using technology in supervision, see Exhibit 2.2-5 in Part 2, Chapter 2.

Continuous Monitoring and Evaluation

As an administrator, you can facilitate effective adoption of new interventions by putting a system in place to monitor and respond to implementation successes and challenges. Organizational cultures that support ongoing use of data to analyze problems and make needed corrections fare better in the adoption of new practices than those that do not typically rely on structured process improvement (Wisdom et al., 2010). Although continuous monitoring and evaluation can be viewed as an end stage of implementation, planning teams must grapple with the types of data necessary to conduct monitoring and evaluation activities during the initial phases of planning. Selection of data elements depends on the strategic goals of the project and the plans for sustainability; data elements should include both process and outcome measures. For example, process measures such as usage rates, dropout rates,

Data Elements To Consider in Monitoring the Impact of TAC

Process

- Technology/intervention usage rates
- Demographic characteristics of clients
- Dropout and retention rates
- Staff satisfaction
- Client satisfaction
- Equipment malfunctioning rates or downtime
- Fidelity or compliance measures
- Costs of care
- Workflow or business process changes

Outcome

- Rates of hospitalization or other high-cost services
- Criminal justice recidivism rates
- Changes in symptoms or behaviors experienced by clients
- Cost effectiveness or cost offsets
- Number and types of relapses in substance use or mental health symptoms

staff perceptions of the challenges and successes of implementation, compliance with the key ingredients of the intervention, and demographic characteristics of the client population can provide helpful information to refine technology-based interventions. Outcomes—including changes in hospitalization rates, symptom changes, and cost effectiveness—can help stakeholders buy into the concept of TAC and promote its sustainability in practice. A system for refining or enhancing TAC is critical to ongoing success.

Disaster Planning

As essential community providers, many behavioral health organizations are required to have disaster plans. In addition to resources such as SAMHSA's Disaster Technical Assistance Center (http://www.samhsa.gov/DTAC/), organizations may consider the ways in which technology can assist in responding effectively to disasters. Technology has the potential to be useful in addressing certain challenges that commonly result from disasters, such as by allowing access to information about medications or health histories via the Internet and enabling communication via text messaging, cell phones, and reverse 911 calling to disseminate information and dispatch providers.

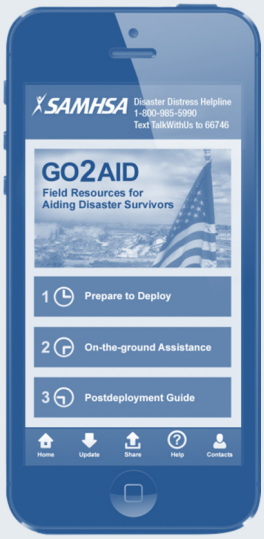
Technology can help ensure that professionals from outside the jurisdiction are properly

GO2AID

In a disaster, it's essential that behavioral health responders have the resources they need, when and where they need them. SAMHSA's GO2AID—Field Resources for Aiding Disaster Survivors application makes it easy to provide quality support. You can perform predeployment preparation, on-the-ground assistance, postdeployment resource delivery, and more, all at the touch of a button:

- **Be focused.** Spend less time worrying about logistics so you can focus on what really matters—the people in need.
- **Be prepared.** Rely on and access predownloaded resources on your phone in case of limited Internet connectivity.
- **Be confident.** Review key preparedness materials so you're confident about providing the best support possible.
- **Share resources easily.** Send information to colleagues and survivors via text message or email, or transfer to a computer for printing.

Source: SAMHSA, 2013c.



licensed and credentialed during disasters. In more widespread disaster environments, state regulations for licensure and practice may be waived for providers coming from outside the disaster area; teleconferencing, long-distance telephone consults, and other technology-based services may be allowed by state regulators on a temporary basis. The use of telemedicine, a cornerstone of most current disaster service plans, can bring remotely located providers to the affected area without the logistical challenges of travel (Yellowlees, Burke, Marks, Hilty, & Shore, 2008). Some states offer reciprocity specifically for physicians and nurses practicing telehealth in disaster environments; however, others do not offer such reciprocity, creating challenges during disasters. The Emergency Medical Assistance Compact (EMAC) provides protections for medical personnel who provide care across state boundaries during natural disasters and other emergency situations. See the EMAC Web site for more information about the compact (http://www.emacweb.org).

When considering how technology can be used in a disaster, think about how internal organizational communication as well as communication with other critical providers or responders might be affected. For example, having charged cell phones programmed with critical contacts may be vital to effective communication. This may include a plan to communicate with pharmacies to ensure that clients or disaster victims have access to needed medications. In addition to using technology to assist in disaster response, you and your implementation team must plan for technology failures in the event of disasters as reliance on technology to conduct business increases. This includes back-up power sources, access to electronic health records (EHRs), systems of communication with other providers and local authorities, and access to provider credentialing records.

Technological Capacity Considerations

TAC requires a level of expertise in information technology that was not often required of behavioral health organizations in the past. This section addresses considerations for technological capacity based on the type of technology to be adopted.

Data Security

HIPAA dictates the privacy and security safeguards required for the protection of protected health information (PHI). The security aspects of these rules, which address how health data are accessed, transmitted, and stored (U.S. Department of Health and Human Services [HHS], 2006; HHS, Office of the Secretary, 2013), must be considered when implementing TAC. HIPAA also addresses who is authorized to access data and how access restrictions are implemented. Organizations must establish a password management system that controls access to client data on devices owned and controlled by the organization, as well as remote devices or devices accessed from remote locations. In addition, organizations are advised to have policies that address lost and stolen passwords, automatic session logouts for unattended work stations, and virus protection on all computer equipment and other devices that store PHI (HHS, 2006).

Business Associate Agreements

Business associate agreements are required between HIPAA-covered healthcare providers and those performing business functions on behalf of providers, such as by providing technology solutions. The Office for Civil Rights Resources, which enforces HIPAA, offers resources related to such agreements on their Web site (http://www.hhs.gov/ocr/privacy/hipaa/understanding/coveredentities/contractprov.html).

Additional Data Security Resources

- HHS HIPAA Security Guidance (http://www.hhs.gov/ocr/privacy/hipaa/administrative/securityrule/remoteuse.pdf)
- Guide to Storage Encryption Technologies for End User Devices: Recommendations of the National Institute of Standards and Technology (http://csrc.nist.gov/publications/nistpubs/800-111/SP800-111.pdf)
- National Institute of Standards and Technology Guidelines on Electronic Mail Security (http://csrc.nist.gov/publications/nistpubs/800-45-version2/SP800-45v2.pdf)

Staff training effectively addresses many security risks, so dissemination of these policies is critical. Training should include information about risks associated with password sharing, saving logins and passwords in unsecured locations, and forgetting to log off.

HIPAA requires policies that prohibit the transmission of PHI via unsecured email and provide for email encryption. In addition, policies about remote access to PHI via networks and Web-based email are necessary (HHS, 2006). Data storage security as defined by HIPAA includes encryption of stored data and backups and policies about storage of PHI on devices that are outside the physical control of the organization, such as laptops, universal serial bus (flash) drives, and personal digital assistant devices (HHS, 2006). Policies must address the handling of security violations, equipment repair, and disposal of technologies no longer in use, and procedures must be put in place to train staff members on policies initially and on an ongoing basis.

These are just a few privacy and security issues to consider. The Office of the National Coordinator for Health Information Technology provides more comprehensive guidance and resources on compliance with HIPAA when implementing health information technology solutions (http://www.healthit.gov/providers-professionals/ehr-privacy-security/resources).

Video and Web Conferencing

The video conferencing systems telehealth and telemental health programs typically use take a hub-and-spoke approach to delivery, meaning that clients travel to a local health or behavioral health center to access services that are not available in their community. This model has the advantage of averting some of the technological, privacy, and security complications associated with clients accessing services in their homes. The implementation planning process should inform assessment of the technological infrastructure necessary to deliver TAC. If video conferencing will be central to the intervention, issues of bandwidth, image resolution, display size, and audio quality on both sides of the exchange are central to its effectiveness. Issues of bandwidth are particularly important for video conferencing. If using public Internet for video conferencing, it is important to consider fluctuations in Internet use and the impact of that use on speed. For instance, high Internet use times on the public

Resources on Video and Web Conferencing

- American Telemedicine Association Telemedicine Standards & Guidelines: http://www.americantelemed.org/resources/standards/ata-standards-guidelines
- National Center for Telehealth & Technology T2 Telehealth Programs: http://t2health.org/programs-telehealth.html
- Health Resources and Services Administration (HRSA) Telehealth: http://www.hrsa.gov/ruralhealth/about/telehealth/
- Telehealth Resource Centers: http://www.telehealthresourcecenter.org
- Addiction Technology Transfer Center Network: http://www.nattc.org

Video Conferencing During National Depression Screening Day

Video conferencing has increased awareness of issues and resources related to depression during National Depression Screening Day, an annual event run by Screening for Mental Health, Inc. (SMH) since 1991 (SMH, 2012). In one example, a lecture was broadcast to regional video conferencing sites through a coordinated effort among hospitals and regional mental health centers. After the lecture, local staff administered a screening tool to community members. If screening indicated possible depression, local staff connected the person with a professional for evaluation and counseling.

network may limit available bandwidth and slow the transmission to an unacceptable level.

Internet connectivity and bandwidth must be sufficient at both ends of the transmission. Bandwidth and encryption are as important for the client participating from home as for the primary transmission site. In addition, data security and storage are essential to consider and are related to unique risks when transmitting client images using video conferencing. Various videophone and video conferencing technologies are available and offer a range of solutions to these challenges. Audio Web conferencing can be used to conduct group discussions over the Internet. A number of vendors sell access to products useful for Web conferencing. Audio technologies are typically more familiar to providers and generally pose few challenges. However, mobile phone use for Web conferencing raises some privacy and security concerns. See the "Telephone/Audio Conferencing" section for additional information.

For providers, ease of use of the technology is important. Some approaches using video and Web conferencing require technology experts to operate and troubleshoot the equipment but still demand at least some technical skill from clinicians. Other models rely on clinicians to perform their own troubleshooting, requiring more advanced technical skills.

The physical location of counselors and clients while they participate in audio/video conferencing has implications for privacy. The American Telemedicine Association (2009b) addresses physical location requirements, including visual and audio privacy, room lighting, backdrops, and ergonomic considerations. Organizations should consider adopting policies that require individuals to introduce themselves upon entering the room during a session and that encourage discussing the privacy of clients' locations with clients at the beginning of each session. Planning teams need to grapple with these issues in advance of TAC delivery and have plans for monitoring and adjusting their

Telephone-Based Continuing Care

Telephone-based continuing care has been demonstrated to hold promise as a strategy to maintain more frequent contact with clients without the barriers associated with travel to treatment sites. In one study, clients completing an intensive outpatient program for substance use disorders were randomly assigned to in-person counseling twice weekly or to weekly telephone monitoring with a monthly support group. The outcomes of the clients participating in telephone continuing care were as positive as the outcomes of the clients who had in-person counseling (McKay, Lynch, Shepard, & Pettinati, 2005).

Based on these findings, AspenPointe TeleCare (http://www.aspenpointe.org) has implemented a telephone-based recovery support program for adults completing treatment for substance use disorders. For up to 2 years following enrollment in outpatient treatment, recovery case managers conduct brief telephone calls to help clients manage relapse risk and bolster mutual-help activities. Calls occur weekly early in recovery, but as clients maintain recovery and build support, the frequency reduces to monthly.

approach to troubleshooting technology issues as implementation proceeds.

Telephone/Audio Conferencing

Delivering treatment services via telephone is likely to be the most accessible, inexpensive means for providing TAC in organizations that lack existing technology infrastructures. Teleconferencing, or connecting multiple users into an audio discussion, can facilitate group discussions for treatment or supervision purposes. Various teleconferencing vendors with a range of contract terms are available. Although use of the telephone can be highly accessible, organizations should be aware that without additional protections, mobile phone transmissions are not secure. Voice communication over mobile phones must be encrypted to minimize the risk of third-party interception; when mobile devices transmit data, they should be treated like other remote devices (e.g., laptops) in terms of security.

Email

When protocols are specific and based in scientific evidence for the population, email can be an effective, accessible, and inexpensive way to conduct outreach with high-risk individuals (Luxton, June, & Kim, 2011) and to sustain contact with clients between scheduled in-person sessions (Alemi et al., 2007; Barak, Hen, Boniel-Nissim, & Shapira, 2008). There is a small body of evidence suggesting that the use of email to deliver primary clinical content may be effective (Luxton et al., 2011; Te Poel, Bolman, Reubsaet, & de Vries, 2009). Because email is not a secure form of communication unless it is encrypted, organizations and providers must implement safeguards to ensure privacy of communications. These precautions include having policies to prevent unintentional disclosure to someone other than the client, such as confirming an email address, and fully exploring risks related to someone other than the client having access to his or her email account. Furthermore, all email exchanges of treatment-related information must use email encryption to meet HIPAA Security Rule requirements (HHS, 2006). Various single-user and organizational solutions for email encryption are available and are generally quite affordable. The National Institute of Standards and Technology Guidelines on Electronic Mail Security provide detailed information on email security and encryption (http://csrc.nist.gov/publications/nistpubs/800-45-version2/SP800-45v2.pdf).

Therapeutic Email

A program of structured therapeutic emails sent daily in conjunction with electronic support groups, abstinence monitoring, and optional individual counseling sessions has been used as an adjunct to treatment for women who are pregnant and use drugs. Clients reported the ability to build strong relationships using the technology-based program and found it easier and more convenient than in-person sessions (Alemi et al., 2007).

Another option for email is the use of secure, Web-based messaging systems. Several large online behavioral health service providers exist and often include proprietary systems for communicating with clients that may allow for the sending of encrypted email and the storage of text communication with clients. Because emails may be subpoenaed, you should develop policies for your behavioral health program on the storage of these communications. Research suggests that before implementing email or instant messaging interventions (or any technological intervention), behavioral health service providers and program administrators should carefully consider the needs and characteristics of the clients who are likely to benefit from the intervention. Consider implementing structured clinical protocols and procedures to

cover the full range of ethical and legal issues discussed in this Treatment Improvement Protocol (TIP) and heed current research as you consider incorporating email into your program's delivery of behavioral health services.

Text Messaging

Text messaging can effectively provide brief interventions or resources to clients on their mobile phones. Text messaging-based interventions may include reminders for medications and appointments or regularly scheduled educational or preventative text messages. In some cases, these reminders may be managed through an EHR. Text messages are easy to send if the client has a mobile phone and a text messaging plan. However, clients may be charged per character or per message for text messaging, so it is important to seek consent to communicate by text message and to ensure that clients understand the security and privacy limitations of data transmission and storage via mobile phone. (For more information on informed consent, see Part 1, Chapter 1.)

Unencrypted text messages should not include PHI. Although there are some secure text messaging services, standard text messages may not be secure. They may be stored on a subscriber identity module card, which identifies the user to the cell phone network, and they can be easily visible to others. Encryption software downloads messages to computers and secures the mobile phone or device if it is lost, eliminating some—but not all—of the privacy and security risks inherent to this mode of communication.

Counselors should carefully evaluate the type of information they need to send to or receive from clients before using text messaging; if the information's inadvertent release could have serious consequences, text messaging is generally inadvisable. Consider establishing a means for counselors delivering TAC to verify their clients' identity before sending/receiving texts. Clients, too, may wish to consider using a screen lock and/or time-out feature to keep information from remaining viewable on their mobile devices to unauthorized viewers. Asking clients to confirm receipt of text messages and establishing measures such as auditing and remote wiping can protect sensitive information to a degree, but providers should generally avoid using text messaging for communication when privacy and security are of significant concern.

Text4Baby

For women who are pregnant or in their first postpartum year, the Text4Baby program provides three weekly text messages on a variety of maternal and child health topics, including nutrition, prenatal care, immunization, mental health, smoking cessation, family violence, and exercise. The messages are short and provide specific actions that women can take to care for themselves and their babies based on due dates. Between February 2010 and July 2011, the program enrolled 155,000 women (Jordan, Ray, Johnson, & Evans, 2011).

Web-Based Text Communication

Real-time instant messaging can serve as an alternative to asynchronous email or text message exchanges. Providers and clients can download chat programs, which are often free, quickly and easily from vendors; these programs require only a computer with an Internet connection. However, issues of data security and storage exist. Real-time chats and instant messaging features are widespread and can broaden access to social support, but the privacy and confidentiality risks inherent to this mode of communication are extensive. Your agency's TAC policies should remind clients that messages sent through chat programs and the chat or messaging features on social networking sites such as Twitter, Facebook, or LinkedIn are not secure and that posts to such

sites are not confidential. TAC policies should also discourage providers from interacting with clients via social networking sites and urge them to remind their clients that communications posted on such sites are public.

Avoiding the use of social networking sites can become particularly challenging when disgruntled clients post ratings or comments about their experience with your behavioral health program or your agency's personnel. You and your TAC implementation team should carefully consider establishing policies to guide agency responses to consumer ratings and comments that are posted on the agency's own Web site as well as on other public forums.

Self-Directed Therapeutic Tools

Self-directed therapeutic Web sites and applications are typically hosted by third-party vendors. Organizations will typically purchase a usage license for a group of clients; the clients then receive a unique user ID and password. The content of self-directed therapeutic tools is developed by the vendor and often restricts the client's ability to enter personal information.

Many self-directed therapeutic tools target prevention and treatment of mental and substance use disorders. For example, college campuses often purchase licenses so that their students can access substance use or mental health risk factor reduction programs delivered over the Internet. Another example is a secure Web site that provides self-directed education and secure messaging with a care manager for clients enrolled in outpatient mental health services (Hunkeler et al., 2012). In addition, many mobile applications have been developed that lead the user through a process of screening, education, and support. Applications vary in terms of data security and the amount of personal information entered.

Self-directed behavioral health applications frequently include Web-based messaging systems that send emails to clients prompting them to log in to a password-protected Web site. Before incorporating digital self-directed therapeutic tools into your agency's behavioral health program or recommending their use to your clients, your TAC implementation team should investigate how such applications address password protection, automatic logouts, firewalls, audit trails, encryption, and authentication. They should know what data the tool collects; how it stores and protects those data; and the extent to which it may share the data, including any third-party access to the data. Online therapy service providers may serve as an alternative for secure communication with clients. These services help manage privacy and security concerns by providing encrypted chat stream identifiers and storing text communication with clients, but you must carefully examine the reputations of such services before choosing one.

Self-directed therapeutic tools can be attractive to clients and providers because they require little investment in infrastructure other

Programs To Reduce Health Risks

MyStudentBody (http://www.mystudentbody.com), AlcoholEdu (http://www.everfi.com/alcoholedu-for-college), and Alcohol eCHECKUP TO GO (http://www.echeckuptogo.com) are online self-directed therapeutic programs designed to reduce health risks among college students and others. They include alcohol and drug courses and general wellness resources in the areas of sexual health, nutrition, stress, and tobacco use. For example, MyStudentBody allows participants to develop an individual profile that will direct them to topic areas based on their risk and provides links to local emergency resources. This program, along with similar campus education and risk reduction approaches, holds promise in reducing risky behavior on college campuses (Hustad, Barnett, Borsari, & Jackson, 2010; Walters, Miller, & Chiauzzi, 2005).

than access to the Internet, allow clients to work at their own pace, and are accessible (assuming an Internet connection) whenever and wherever the user wishes. Although some of these tools allow for clients to share information with their behavioral health service providers, they generally operate outside of the formal treatment process.

Organizational Web Sites

Organizational Web sites can provide information about behavioral health service systems in a way that can motivate people to seek services (Maheu, Pulier, Wilhelm, McMenamin, & Brown-Connolly, 2004). More active approaches that include discussion groups, built-in chat or email features, and other opportunities for digital interaction with staff members are more likely to engage people into service delivery. That said, organizational liability increases as the organization's Web sites become more active. Although the design and maintenance of professional Web sites are beyond the scope of this document, administrators and TAC implementation teams are urged to consider the risks and opportunities associated with embedding email and discussion group features into Web sites. These more active approaches to Web site design pose challenges and raise concerns similar to those for stand-alone approaches to email and discussion groups.

Budgeting Considerations

When estimating technology costs and related personnel costs to your agency in adopting a TAC approach to behavioral health service delivery, you must consider a full range of issues, including the hardware, software, technological support, training, and staff support required to deliver TAC. Try to project costs for infrastructure development (startup) along with ongoing TAC delivery. Unfortunately, investment in the initial infrastructure to facilitate TAC can be costly (McGinty et al., 2006). It is critical that you have a clear understanding of the costs and a plan to finance the development of the infrastructure necessary for your agency to deliver TAC successfully.

Cost Categories

Costs associated with various technology-mediated interventions vary widely. In addition to identifying the specific expenses related to the type of intervention selected, agencies have the option of leasing, contracting, or buying equipment and services. Your organization's strategic goals, existing technology infrastructure, and cost considerations dictate which options you select. In planning to implement TAC, you will benefit from careful investigation of the following cost categories.

Infrastructure development cost considerations include:

- Equipment, including computers and servers, mobile devices (for both client and staff use), video conferencing equipment, and telephones.
- Cabling and other communications lines, building reconfiguration, equipment, and cooling systems.
- Internet service provider fees.
- Software, including encryption systems, virus protection, applications, storage, and security systems.
- Expert consultation in technology.
- Content development (e.g. clinical materials, protocols, procedures).
- Initial staff training, including staff time, expert trainer time, and content development.
- Legal and accounting consultation (e.g., sufficient and explicit insurance coverage).
- Development and/or revision of forms, such as informed consents and privacy disclosures.

Ongoing costs considerations include:

- Equipment maintenance, insurance, and replacement costs.
- Ongoing Internet service provider fees.
- Annual licensing or hosting fees.
- Software renewal licensing fees.
- Expert consultation and/or troubleshooting services.
- Ongoing staff training for new staff recruits and refresher training for existing staff members.
- Content refinement and updating of client materials.
- Legal and accounting consultation.
- Inclusion of extra client data and client privacy/consent management information.

Reimbursement for Technology-Mediated Care

Medicaid and Medicare reimbursement guidelines for telemedicine have been developed and are available through the Centers for Medicare and Medicaid Services (CMS). Currently, Medicare authorizes reimbursements for telehealth services delivered by designated professionals in underserved areas or as demonstration projects (HHS, CMS, 2012, 2013). Some state plans dictate Medicaid reimbursement for telehealth. Some private payers also reimburse for video conferencing, and others are piloting video, text, and telephone interventions (Maheu et al., 2004). Although these and other reimbursement structures for TAC under other private and public health insurance plans are emerging, depending on state licensing and reimbursement policies, providers may have the ability to recapture their costs in other ways. For example, the use of technology-mediated interventions may be incorporated as a value-added service that assists providers in meeting other contractual obligations, such as improving care coordination or reducing rehospitalization; the costs may thus be recovered in other service areas.

Gilman and Stensland (2013), of the Medicare Payment Advisory Commission, analyzed 100 percent of telehealth Medicare claims for 2009 (the most recent available data). They reported roughly 38,000 telehealth visits in 2009. Of the providers who delivered 10 or more Medicare-covered telehealth services, 44 percent were psychiatrists, 3 percent were clinical psychologists, and 2 percent were licensed social workers (although the nonpsychiatric providers could be underestimated, as services are sometimes billed under the name of a physician). The authors noted that there were only 26,000 Medicare telehealth visits in 2006, but they considered the increase to 38,000 in 2009 to be "modest," with only 185 mental health professionals providing 10 or more telemental health visits. Although Medicare recognizes the potential of TAC and has made changes by increasing reimbursement and decreasing regulatory burden between 2006 and 2009, the barriers to implementation described throughout this TIP may continue to restrain reimbursement of telemental health services provided to clients who are covered by Medicare or Medicaid.

Vendor and Consultant Selection Considerations

Selecting a vendor to facilitate TAC is a critically important endeavor. Security, privacy, confidentiality, and regulatory requirements must be addressed in addition to cost, usability, and sustainability of the technology. A first step in soliciting bids from vendors is to develop a detailed scope of work and request for proposals. Many organizations choose to hire a consultant who is not invested in a particular technology solution to assist in the development of the request for proposals and selection of vendors. This approach can bring

a level of attention and expertise to vendor selection that may be attractive, especially to organizations that do not have internal technology expertise. Nonetheless, it is important to involve a broad range of stakeholders, including the clinical team and potential clients, in the vendor selection process to assess ease of use of the technology and any technological support the vendor will provide. The vendor selection process should also include demonstrations that allow potential users to operate the technology in situations that mirror anticipated live conditions as closely as possible.

Much guidance is available in selecting technology vendors and experts. Factors to consider vary based on setting, approach, and degree of internal organizational expertise available. Your agency will benefit from careful analysis of the strengths and weaknesses of vendors prior to entering into binding agreements or sharing confidential client information.

When reviewing vendor and consultant credentials, consider:

- Demonstrated experience in implementation of similar applications or services (e.g., whether the vendor has developed or implemented similar applications in other behavioral health settings).
- Stability of the vendor's company or agency.
- Availability of training and support.
- References from other customers.
- Anticipated software upgrades and the process for upgrades.
- Reporting ease and capacity.
- Security, privacy, and confidentiality protections.
- Company and technology sustainability.

Vendor Selection Resources

- Telehealth Technology Assessment Center: http://telehealthtechnology.org/toolkits
- The Telemental Health Guide: http://www.tmhguide.org
- Agency for Healthcare Research and Quality Health Information Technology Tools and Resources: http://healthit.ahrq.gov/health-it-tools-and-resources

Data Management Considerations

The data management challenges associated with TAC cannot be overlooked. This section offers guidance on common risk management challenges associated with data retention, EHRs, and client access to devices owned by the organization. Because some of the examples of technology-assisted services cited in this document originate outside the United States, and given that the regulatory environment surrounding the delivery of these services in the United States is rapidly changing, administrators should remain diligent in monitoring the regulatory and legal environment within their state. You should seek legal advice specific to state laws and regulations applicable to your behavioral health program, risk and liability, and insurance coverage when determining how to address risk management issues associated with TAC.

Data Management

The issues of data management, quality, and security as dictated under HIPAA are discussed earlier in this TIP. As for how much of the content in digital or audio exchanges between clinicians and clients should be stored, you must consider whether to retain every email communication or transcripts of every chat, and if so, whether to contain such information within client records. Although storing more information about clinical interactions may improve continuity of care, it also creates storage space challenges, and the information may be subject to subpoena. The sheer volume of information text-based communications generate, as well as added challenges associated with video storage, suggest

the need for clear administrative policies about retaining and storing information.

In addition to data management and security, issues of data quality can arise when clinicians or clients make data entry errors (e.g., misreporting a weight that a physician then relies on for medication dosage, understating or overstating symptoms). The use of crosschecking software and other internal procedures to ensure data quality can minimize these risks.

EHRs

A comprehensive look at EHRs is beyond the scope of this publication, but EHRs do often include integrated tools that are relevant to direct service delivery. For example, EHR systems can generate reminder phone calls and text messages. EHRs that let providers share access to a client's clinical record are helpful when coordinating care. Sharing clinical information among providers and their supervisors can enhance care and promote technology-mediated supervision. (See also http://www.healthit.gov/providers-professionals/benefits-electronic-health-records-ehrs)

Client Access to Organizationally Owned Devices

In addition to addressing PHI-related data security issues when providing computers and other Internet-enabled devices for client use, you must decide whether to control client access to Web sites that distribute pornography or provide downloading software that gives access to illegal or unhealthy activities. These can be particularly thorny issues for your agency's TAC implementation team to weigh.

Privacy and Confidentiality Considerations

Much has been written about HIPAA privacy rules and 42 CFR Part 2 and behavioral healthcare; therefore, this TIP's discussion of these matters will focus specifically on privacy issues related to TAC. Privacy is defined as the right of the client to control his or her own health data, whereas confidentiality relates to the duty of professionals who are granted access to private information to protect its privacy (Kotz, Avancha, & Baxi, 2009). The issues of privacy and confidentiality are distinct from data security issues, which deal with administrative and technological protections meant to ensure that PHI is not disclosed to unauthorized individuals. Privacy issues are equally important and have unique implications in technology-delivered interventions.

Earlier sections have identified the risks associated with the device-based storage of text messages and the security concerns related to unencrypted email exchanges. In addition, some mobile applications use the Internet or telephone to store or send client information back to providers. For example, a mobile application might record the whereabouts of a client using a global positioning system and provide warnings or support messages about his or her proximity to relapse triggers. Medication levels can also be monitored and the resulting information sent back to the clinician. These applications can be helpful tools for clients and clinicians; however, just as clinicians are responsible for documenting their rationale for recording sessions, clients must sign a written informed consent document outlining the rationale, risks, and benefits along with the protection, storage, and disposal of any identifying information retained by the provider.

Informed Consent

In addition to the usual elements of an informed consent to participate in services, a number of considerations emerge when delivering care through technology. As with all informed consent, the consenting process must ensure that clients fully understand the risks and benefits associated with participation in

the intervention. Technology introduces a new level of complexity and jargon that may be unfamiliar to some clients. Thus, TAC implementation teams must be diligent about ensuring that clients are fully informed of risks and benefits in language that they can understand. This includes a full disclosure of the risk of losing real-time control of personal data through systems that intrude into clients' homes or personal environments for the purpose of monitoring health and wellness, in addition to privacy and confidentiality risks.

Advising clients of the risks and benefits of participating in TAC should be an ongoing process. Clinicians must be well versed in these risks to identify when risk potential changes, to detect client ambivalence, and to initiate discussions of new risks or concerns. Informed consent processes should address the limitations of the technology-based intervention and the alternative interventions available (Barnett, 2011). Although documentation of these discussions and agreements is essential, ensuring that the client fully understands and agrees to the risks and benefits is paramount (Maheu, McMenamin, & Pulier, 2013).

Consider how your agency will secure written informed consent from clients who will primarily engage in services remotely. Clients can provide electronic signatures or select a box on a Web page to acknowledge reading and understanding the information; however, there are concerns in ensuring that clients fully understand and agree to risks and benefits in this manner. Some programs use the low-tech option of having the client sign and fax the form to the provider (Midkiff & Wyatt, 2008); others require telephone or in-person intake sessions to ensure that clients are fully informed. Informed consent should include information about the roles and credentials of each staff member who will participate in a client's care. This includes direct service providers, support staff, and supervisors (Maheu et al., 2004).

It can be difficult to verify identity remotely (e.g., when engaging with clients primarily over the Internet or telephone), so some programs require validation of identity, such as photo identification or a signature declaration of identity (Midkiff & Wyatt, 2008). Another way that programs address verification of identity and age is to require an initial in-person or telephone interview prior to the inception of remote care (Abbott et al., 2008; Midkiff & Wyatt, 2008). In remote areas, video conferencing may provide an alternative to in-person sessions. Biometric authentication devices such as iris scan, voice print, and thumbprint readers may provide cost-effective alternatives for organizations. Agencies should also establish policies for verification of guardian consent (Maheu et al., 2004).

The process of obtaining informed consent from clients should include their provision of emergency contact information and their receipt of a disclosure of the procedures their counselor and/or other agency staff will use, should the counselor determine that the client may endanger himself or herself or others (Mallen, Vogel, & Rochlen, 2005). Verify clients' emergency contact information at the time of intake to ensure that your agency has valid information about the client to use in the event of an emergency or for mandatory abuse reporting. The informed consent process should also clearly indicate who the client should contact in the event of a crisis or emergency and should define the response time clients can expect. You may also wish to advise clients not to use email to communicate about emergencies (Maheu et al., 2004).

Informed consents should outline how and where the client's data are being transmitted and the risks and benefits associated with transmission. This includes seeking explicit

consent to transmit the image of a person, such as through video conferencing. Informed consent should address risks of being overheard during audio transmissions and of text-based communications being intercepted by third parties. The informed consent process should also clarify how information will be transmitted and stored for clinical supervision.

In addition to explaining risks, give clients information about what they can do to protect themselves from privacy breaches. Advice may include not sharing passwords or email accounts with family members, logging off Web sites after each session (especially for clients in group living situations), and using virus protection software. Introducing clients to the Internet or mobile technology creates potential for benefits and risks that extend beyond TAC itself, so providers have an obligation to help clients become informed consumers of technology in general. Responsible providers give their clients information on topics such as viruses, malware, and spyware risks and protection; vetting Internet resources; the risks of sharing personal information on social media; the risks associated with sharing software, such as music files; the importance of passwords; and password management. Information available to clients should be understandable, accessible, and—for very vulnerable populations—delivered in various ways.

Explain how fees for technology-based interventions are charged and how payments for TAC are made (Barnett, 2011; Maheu et al., 2004). This may require explaining insurance reimbursement and limitations of reimbursement, which types of interactions are billed, and the logistics of payment. If clients wish to use credit cards, issues can arise regarding recurring payments, the name listed on the invoice, and where receipts may be sent. Depending on the type of technology used and the intervention's intensity, advise clients about how technology failures will be handled, including backup plans for clinical intervention and plans for handling technological problems (Mallen, Vogel, Rochlen, & Day, 2005).

Scope of Practice, Boundaries of Competence, and Credentialing

In any setting, a behavioral health service agency plays a role in ensuring that its counselors, supervisors, and other clinical staff provide services within their scope of practice and competence; this is often accomplished through formal credentialing and privileging procedures. Remote service delivery not only presents challenges in ensuring that providers are licensed to deliver a particular type of service in a specific jurisdiction, but also demands that counselors develop new TAC-specific competencies. Organizational TAC competencies differ from those required for agencies providing traditional in-person services. For example, program implementers need to be sensitive to such issues as naming of moderated forums and ensuring that the scope and role of the staff members responsible for moderating it are clear (Midkiff & Wyatt, 2008). Another example would be a client's potential inability to distinguish easily between a licensed professional's email and that of a support person who is responsible for logistical arrangements; you may wish to establish a policy requiring staff members to use full signatures that clarify who is sending the message, the role the sender plays, and alternative contact information for reaching the sender, such as a phone number (Maheu et al., 2004).

It is important for behavioral health organizations providing TAC to adopt policies and practices that ensure coordination of care among the various staff members who will communicate with a given client. You may wish to consider providing clients with an acknowledgment that explains the limits of any technology-based service that will be provided

Emergencies

In addition to requiring the collection and verification of clients' emergency contact information at the time of intake, you should establish policies for handling emergencies when the client is not physically present at the service site (Barnett, 2011). These policies may include adding warnings to notify clients when an immediate response cannot be expected and how to reach a live person in the event of an emergency. Policies that define the timeliness of providers' responses to email and telephone calls, along with clinical backup procedures during a provider's absence, are also helpful (Maheu et al., 2004).

Behavioral health service providers should keep information on local emergency services and should have well-established protocols regarding the responsibilities of partner providers and agencies (Shore, Savin, Orton, Beals, & Manson, 2007). This is particularly true for remote agencies, where providers will have the most direct contact with clients but may not have the expertise to address an emergency situation adequately. For example, it is important to be knowledgeable of the civil commitment process and the available emergency mental and substance use disorder resources; in addition to this knowledge, it is essential to have clear agreements about roles and responsibilities so that local partners have a working relationship with your agency and its staff. Ongoing partnerships allow for confidentiality and privacy concerns to be addressed in advance of an individual crisis situation (Shore et al., 2007).

You may wish to institute procedures that document the circumstances in which providers can terminate treatment and ways that providers should respond to both overt and subtle requests from clients to terminate treatment. These procedures should include active referral of the client for continuing services with another reputable provider.

Introducing TAC to rural and frontier areas has raised some concerns about the handling of emergencies that are unique to the delivery of TAC in such settings. The American Telemedicine Association (2009a) recommends that behavioral health service providers working with rural populations discuss firearm ownership and safety with their clients, assess clients for substance use, and be familiar with the local emergency and behavioral health resources. They should also note the impact of emergency disclosures on confidentiality with regard to overlapping relationships in small communities.

and the terms of participation, either as a part of the informed consent process or separately. You must also establish a process for identifying situations in which the use of technology may be counterproductive or dangerous and enact policies for handling these situations, including when and how services should be discontinued (Murphy, MacFadden, & Mitchell, 2008).

Regulatory Considerations

As TAC rapidly expands, states and payers are scrambling to establish regulations to keep pace. A survey of state mental health and substance use disorder agencies found that most states were using some form of telehealth, most often in mental health service delivery via Web conferencing (National Association of State Alcohol and Drug Abuse Directors [NASADAD], 2009). At the time, only a handful of states reported using other technology for service delivery; fewer than half had implemented regulations. Of the 14 states with regulations, 5 required telehealth providers to meet the same standards required for in-person services, 3 required providers to have formalized protocols, 2 required provider certification, and 2 modified their requirements from the standards for in-person services (NASADAD, 2009).

A 2010 survey of state regulatory boards responsible for counselor certification found that 14 states had regulations for technology-assisted counseling, but only 6 states had

regulations for technology-assisted supervision (McAdams & Wyatt, 2010). Twenty states had regulations either under discussion or in development. Seven themes were identified among the states with regulations, including a tendency to regulate technology-assisted counseling and supervision as a discrete specialty versus another mode of counseling or supervisory activity. States tended to limit TAC to special circumstances, such as geographic isolation, and required additional disclosures of the risks and benefits of TAC either by incorporating the information into existing consent processes or by using additional consent forms. Most states required licensure in all states where TAC was delivered, but few states required specialized training.

Telemental health services using two-way audio and video transmissions are addressed by The Joint Commission, reimbursable under Medicaid in many states, and reimbursable by Medicare in rural areas (American Telemedicine Association, 2009a; California Telemedicine & eHealth Center, 2006). Detailed practice guidelines for delivery of telemental health services and clinical supervision using video conferencing technologies have been established by the American Telemedicine Association (2009b). These guidelines cover clinical specifications, such as ethics, emergencies, and general practice issues; technical specifications; and administrative issues (e.g., policies that organizations should adopt).

Most states require that professionals engage in telemedicine practice within their professional scope and have a license to practice in the state where the client resides. Some states have state reciprocity regulations regarding licensure; abiding by these state licensing regulations is often a condition of malpractice insurance coverage (Mallen, Vogel, Rochlen, & Day, 2005). Clients must be fully informed of the potential risks and benefits related to TAC and must also consent to the transmission of their data and images. Current TAC best practices thus include:

- Limiting practice to working with clients who live in the state in which the professional is licensed (Mallen, Vogel, & Rochlen, 2005).
- Providing TAC services within the scope of practice authorized by the professional license.
- Explicitly discussing with clients the risks and benefits of TAC (McAdams & Wyatt, 2010).
- Participating in specialized training prior to engaging in service delivery or supervision (Maheu & Gordon, 2000; Midkiff & Wyatt, 2008).

The U.S. Food and Drug Administration (FDA) is developing regulations requiring certain tools and mobile applications to be approved as medical devices. The FDA deems certain devices to be low risk; these can be used without FDA approval. See the "Confidentiality, Privacy, and Security" section in Part 1, Chapter 1, for a summary of FDA developments and references to recent FDA documents. TAC implementation teams should monitor the FDA Web site and sign up for email updates from FDA and other sources, such as the Office of the National Coordinator for Health Information Technology (http://www.healthit.gov).

Resources on TAC Regulations and Financing

- American Telemedicine Association (http://www.americantelemed.org/)
- Center for TeleHealth & e-Health Law (http://www.ctel.org/)
- HRSA Rural Health IT Adoption Toolbox (http://www.hrsa.gov/healthit/toolbox/RuralHealthITtoolbox/index.html)
- HHS's Explanation of Health Information Privacy (http://www.hhs.gov/ocr/privacy/)

Part 2, Chapter 2

IN THIS CHAPTER

- Introduction
- Tools for Clinicians
- Staff Recruitment and Supervision
- Sample Telehealth Policies

Introduction

A variety of materials can be found online to assist behavioral health service providers who use technology in their practice and to help clients use technology to support their recovery. This chapter includes selected resources for providers and administrators who are implementing technology-assisted care (TAC). The materials included in this chapter are intended for modification based on the unique context, service design, and staffing configurations of a given program or organization; they are only a small sampling of the wide array of resources available.

In exploring TAC implementation opportunities, understanding the various TAC-specific terms you may encounter is key; the glossary in Exhibit 2.2-1 is by no means exhaustive, but it does cover most common terms.

Tools for Clinicians

Written Statements To Communicate or Elicit Emotional Responses

Relying on written words to express emotion is quite different from having in-person exchanges, but written exchanges can be particularly useful for specific types of people or circumstances (Anthony, Nagel, & Goss, 2010). In particular, people who have previously experienced discrimination, who have service access barriers, or who are concerned about preserving the anonymity of their participation in treatment can benefit from counseling and support that relies on the written word rather than in-person exchanges. Nonetheless, providing clinical services via the written word presents challenges for counselors and clients. Exhibit 2.2-2 shows how a counselor might phrase questions to elicit particular

Exhibit 2.2-1: Glossary of Common Technology Terms

Application (app)	A software program that runs on a computer, tablet, or mobile phone.
Asynchronous communication	Communication that, once sent, can be responded to later. For example, email allows recipients to respond whenever they wish, whereas synchronous communication requires sender and recipient to communicate at the same time, often back and forth, as in a phone conversation. Email can be considerably slower than text messaging, but some consumers may be more comfortable with a slower form of communication. Younger clients are often more experienced with texting and prefer the more rapid communication exchange that is possible via this medium, as do many others of any age who are familiar with texting.
Authentication	Some form of verifying the user of a given technology, such as through a password, key code, thumbprint, retinal scan, or photo likeness.
Avatar	An icon, picture, character, or graphic that represents a person's online identity. Avatars allow people to portray online identities without revealing their real images.
Bandwidth	The capacity of the transmission connection. Large bandwidth allows more information to be sent in less time.
Blog	Written thoughts, links, opinions, and commentaries posted on a Web site.
Broadband	Bandwidth adequate to transmit high-quality audiovisual data.
Chat	Online communication that occurs in real time; includes chat rooms, where people (usually several individuals) exchange dialog, as well as instant messaging (usually involving just two people).
Desktop	The first display you see on a computer after the startup is completed. It is often a background or wallpaper where icons of files and programs are saved.
Desktop computer	A personal computer (PC) to be used in one location, as compared with a laptop or portable computer, which is meant to be carried around and used in many locations.
Domain	The last two parts of an email or Web address that show the organization's name, such as "gmail.com" or "SAMHSA.gov."
Encryption	Encoding data on an email or Web page so it has to be decoded by the person or system that is authorized to see it.
Firewall	Hardware or software that prevents unauthorized access to a computer network.
Frame relay	The streamlined process of sending and receiving data.
Malware	A program loaded on a computer system to compromise the confidentiality or integrity of the data, applications, or operating system of the computer.
Network	A set of locations, points, or computers connected for information exchanges.
POTS	Plain Old Telephone System or landline (versus a mobile, or cellular, phone system).
Real time	A form of sharing data or communicating where there is no perceivable delay between the time something is sent and the time it is received.
Redundant	A backup approach to data processing or communications to ensure that even when one critical element of the system fails, the system continues to operate.

(Continued on the next page.)

Exhibit 2.2-1: Glossary of Common Technology Terms (continued)

Smartphone	A mobile telephone that can do more than make phone calls or send text messages. Smartphones often can send and receive email, access the Internet, display photos, and play videos.
Social media or networking	Web sites (e.g., Facebook, Google+, LinkedIn) that allow people to create Web pages with personal information and exchange messages with others.
Store-and-forward	Transmission of images or audio clips to a storage device where a behavioral health service provider can view them, thus reducing the bandwidth required.
Synchronous communication	Communication where there is no lapse between the time the sender communicates something and the receiver gets the message, allowing the participants to communicate in real time.
Tablet	A small, lightweight computer that often uses a touchscreen instead of a keyboard.
Teleconferencing	Interactive communication among multiple users at different sites; can include voice, video, and data.
Telehealth	Use of electronic information and telecommunications to support long-distance clinical healthcare, health-related client and professional education, public health, and health administration.
Telemedicine	The exchange of medical information from one site to another through electronic communications to improve clients' clinical health status; can sometimes be used as a synonym for telehealth.
Text message (SMS)	Brief message typed in a phone or other handheld device that is sent by wireless telephone to another user.
Tweet	Brief online posting distributed to a group of users that are registered as followers of a particular person's tweets.
Twitter	An online service that manages subscribers' tweets.
Uniform resource locator (URL)	An Internet address.
Video conferencing	Real-time, two-way transmission of video images across multiple locations.
Videophone	These types of phones include an imaging device that lets the caller and receiver view each other, as on a television.

responses or communicate a collaborative and accepting attitude to a client. For additional discussion of research (Simon et al., 2011) related to online text messages in a trial of depression treatment follow-up, see Part 1, Chapter 2, as well as the online-only literature review in Part 3 of this Treatment Improvement Protocol.

Text-Based Communication Shortcuts

The use of emoticons and acronyms is not recommended for behavioral health service providers because of the risk of misinterpretation and the blurring of professional and personal relationship boundaries. However, providers engaged in text-based client communication should understand some

Exhibit 2.2-2: Statements To Elicit Responses From Online Clients

Expressing empathy	Obtaining permission	Normalizing
• How sad. • That is terrible. • What an incredible ordeal.	• Is it okay if I ask you some questions about...? • Are you up to some questions now?	• Often it is hard to... • Often it is hard not to... • It is okay if you...
Restating	**Nurturing collaboration**	**Eliciting commitment**
• Correct me if I'm wrong… • I get the impression that… • I sense that you…	• Do you think it would be advisable to...? • As we have both said…	• What are one or two things that you should do first? • How would you know if the effort was worth it? • So are you saying that you are willing to try doing _____?
Promoting credit for change	**Emphasizing strengths and nurturing hope**	
• How were things different this time than they were last time? • What do you think accounts for the change? • What, if anything, did you do differently this time?	• Somehow you got past the obstacle of... Is that correct? • What allowed you to...in spite of...? • How did you do that?	**Assisting with goals** • Does your goal seem realistic? Should you establish subgoals? • Of your goals, which one should you begin with? How should you choose? • How can you go about achieving these goals? • Do you have a plan? Do you need help?
	Gathering more information	
Enhancing motivation	• In order to understand your situation, I would like to ask you some questions. • Can you describe the situation you are in now? • How often does this behavior occur? • What else should I know about you and your situation to help you with this problem?	
• What is different when the problem is manageable? • How would you like things to be different? • Of the things we have discussed, which are the most important reasons to change?		

common emoticons and acronyms that their clients may use. Exhibit 2.2-3 lists some of the more common emoticons and acronyms used in text-based communication. Providers should verify the meaning of communications from clients using emoticons; they often carry multiple, ambiguous meanings.

Determining the Appropriateness of TAC for Clients

As with all modes of service provision, some clients are better suited to TAC than others. For the services to be effective, the client's strengths and resources must match the selected treatment approaches. The International Society for Mental Health Online (2010) identifies some considerations when screening clients for TAC (Exhibit 2.2-4).

Internet Security and Privacy Considerations for Clinicians and Clients

Social networking and online mutual-help groups present a host of support opportunities that transcend geographical boundaries and create opportunities for anonymity that

Exhibit 2.2-3: Common Emoticons and Acronyms in Text-Based Communications

Common Emoticons		Common Acronyms	
:) *or* :-)	Happiness, joke, sarcasm	AAMOF	As a matter of fact
:(	Unhappiness	BBFN	Bye bye for now
:-/ *or* :-// *or* :-S	Undecided, confused	BFN	Bye for now
:@	Shock or screaming	BTW	By the way
|-O	Yawn	BYKT	But you knew that
>_< *or* ><	Angry or frustrated	FITB	Fill in the blank
T_T	Crying	FWIW	For what it's worth
D:	Total fear	FYI	For your information
>O	Ouch	HTH	Hope this helps
X-(	Angry	IMO/IMHO	In my opinion/In my humble opinion
:_(*or* :'(*or* QQ	Crying	LOL	Lots of luck/love or laughing out loud
:o	Surprised	NC	No comment
		NP	No problem
		NRN	No reply necessary
		OMW	On my way
		TIA	Thanks in advance
		TTYL	Talk to you later
		TYVM	Thank you very much

Source: Anthony et al., 2010, p. 19. Adapted with permission.

in-person support cannot offer. Nonetheless, social networking and online support also expose users to new risks. Providers delivering TAC, as well as behavioral health program administrators, should know the opportunities and risks associated with social networking, online support, and Internet privacy; they should help their clients minimize Internet security and privacy risks. Many federal, state, and community-based organizations provide information on using social media and other Internet resources safely. The Office of the National Coordinator for Health Information Technology offers information about protecting personal health information, including protecting health information when using mobile devices (see http://www.healthit.gov/patients-families/what-you-can-do-protect-your-health-information). The National Cyber Security Alliance's Stay Safe Online Initiative provides fact sheets, toolkits, and other information on cybersafety. The checklists that follow provide information on cybersafety; administrators, providers, and clients can use them to minimize the risks associated with seeking online support:

- Safety Tips for Social Networking (http://www.staysafeonline.org/stay-safe-online/protect-your-personal-information/social-networks)
- Privacy Tips for Teens & Young Adults (https://www.staysafeonline.org/data-privacy-day/teen-and-young-adult-resources)
- Safety Tips for Mobile Devices (http://www.staysafeonline.org/stay-safe-online/mobile-and-on-the-go/mobile-devices)

Exhibit 2.2.-4: Considerations Regarding the Appropriateness of TAC

Communication preferences:
- Does the client prefer in-person communication, video messaging, phone, email, instant messaging, or chat?
- Is the client able to benefit from communication methods that he/she does not prefer?

Computer knowledge, skill, and resources:
- Does the client have access to a computer system and the Internet?
  Is the client knowledgeable of his or her computer system and the Internet?
- Does the client have the motivation and capacity to experiment with new technologies?
- Are the client's computer resources compatible with the agency or clinician's system?
- Does the location where the client accesses the computer or Internet pose privacy or technological concerns (including firewalls)?
- If Internet access is interrupted, are there workable alternatives, such as email or telephone?

Online communication knowledge:
- Does the client already use technology to communicate with others?
- What type of experience does the client have with online communications?
- Does the client participate in online support groups? What is the quality of these interactions?

Suitability for text-based communication:
- What kinds of experiences has the client had with reading and writing?
- Are there physical, cognitive, or literacy limitations that would interfere with the client's ability or comfort with reading and writing?
- How well does the client type?
- Does the client enjoy in-person and phone conversations? Why?
- Does the client prefer spontaneous communication, such as chat or IM, versus taking the time to compose, edit, and reflect, such as when using email?

Prior or current treatment experiences:
- How might prior treatment experiences or expectations of treatment influence the client's attitude about participating in online therapy?
- Does the client currently participate in counseling or therapy, and how might this experience influence the online therapy experience?

Presenting or co-occurring problems:
- What is the most appropriate level of care for the presenting problem, and will online therapy be able to meet the needs of the client?
- Is the client suicidal or engaging in risky behaviors?
- Does the client have problems or behaviors that might prevent him or her from responding to online therapy (e.g., impulsiveness, difficulty with boundaries)?
- Does the client have physical health conditions or disabilities that may influence his or her ability to use online therapy?
- Does the client have mental or physical health problems that need to be continuously assessed visually, such as slurred speech, tremors, or flat affect?

Cultural considerations:
- Are there language barriers that may create obstacles to text-based communication?
- Are there cultural considerations that enhance or detract from the usefulness of online therapy?

Other resources or referrals:
- Are there other resources that would better serve the client?
- Are there other supports or resources that can supplement online therapy?

Source: Suler, 2001. Adapted with permission.

Checklist of HIPAA Security Policy Considerations Related to Remote Access and Mobile Devices

User authorization to access electronic PHI

- ☐ Authorization based on role
- ☐ Authorization based on need for access
- ☐ Workforce training prior to access

Security of devices outside physical control of organization

- ☐ Devices covered, such as mobile phones, laptops, flash drives, backup devices
- ☐ Virus protection for remote devices
- ☐ Unattended offsite workstations
- ☐ Prevention of lost or stolen devices
- ☐ Deterrence of access to electronic PHI if devices are lost or stolen
- ☐ Backup and other procedures to avoid loss of electronic PHI if devices are lost

Electronic PHI sent over networks

- ☐ Anticipated uses and risks such as e-prescribing and Web mail
- ☐ Use of secure connections
- ☐ Email encryption

Workforce training

- ☐ Access, storage and transmission of electronic PHI
- ☐ Password management
- ☐ Protection of remote devices from loss or unauthorized access
- ☐ Prohibitions and procedures for transmitting PHI using email
- ☐ Prohibitions and procedures for downloading PHI to remote computers
- ☐ Consequences of policy violation

Procedures and sanctions for loss of control of PHI

- ☐ Lost or stolen logins or devices
- ☐ Unauthorized access to networks or devices
- ☐ Unattended workstations
- ☐ Virus introduction to mobile devices

Source: HHS, 2006. Adapted from material in the public domain.

Checklist of Technology Fluency

What kinds of technology do you use in your work?

- ☐ Email
- ☐ Electronic health records (EHRs)
- ☐ Internet
- ☐ Social media (Facebook, Twitter, LinkedIn)
- ☐ Office software (spreadsheets, documents, presentations)
- ☐ Video equipment
- ☐ Conference calling telephone
- ☐ Mobile telephone

What kinds of technology do you use in your personal life?

- ☐ Email
- ☐ EHRs
- ☐ Internet
- ☐ Social media (Facebook, Twitter, LinkedIn)
- ☐ Office software (spreadsheets, documents, presentations)
- ☐ Video equipment
- ☐ Conference calling telephone
- ☐ Mobile telephone

How often do you use a computer for work or personal reasons?

- ☐ More than once a day
- ☐ Once a day
- ☐ 2–6 times a week
- ☐ Once a week
- ☐ 2–3 times a month
- ☐ Once a month or less
- ☐ Never

How long have you been using the Internet?

- ☐ Never have used it
- ☐ Less than 6 months
- ☐ 6–12 months
- ☐ 1–3 years
- ☐ 4–6 years
- ☐ 7 years or more

How comfortable do you feel using computers, in general?

- ☐ Very comfortable
- ☐ Somewhat comfortable
- ☐ Neither comfortable nor uncomfortable
- ☐ Somewhat uncomfortable
- ☐ Very uncomfortable

How comfortable do you feel using the Internet?

- ☐ Very comfortable
- ☐ Somewhat comfortable
- ☐ Neither comfortable nor uncomfortable
- ☐ Somewhat uncomfortable
- ☐ Very uncomfortable

Source: Bunz, 2004. Adapted with permission.

The use of mobile devices and external storage devices in the delivery of clinical services creates additional challenges to ensuring the security of protected health information (PHI). Entities that are covered by the Health Insurance Portability and Accountability Act (HIPAA) must implement policies and procedures to ensure that the electronic PHI they generate or share meets all HIPAA security requirements. The following checklist extracted from the U.S. Department of Health and Human Services (HHS) HIPAA Security Guidance (2006) summarizes some of the key considerations for organizations using mobile devices in the delivery of behavioral health services.

Staff Recruitment and Supervision

Screening Staff Members for Technology Competence

A variety of measures assess computer use, attitudes, and fluency and are available for organizational use (Bunz, 2004). Use the following checklist to initiate a discussion with staff members about their comfort with and skills using technology. The list includes items from the Computer-Email-Web Fluency Scale (Bunz, 2004). More detailed questions about computer use appear in the original scale. You can also ask staff members to demonstrate their computer skills in a timed session.

Supervisor Competencies

There are distinct competencies that supervisors who oversee TAC must master. These competencies are generally derived from using technology in their own practice. In addition, supervisors who use technology to deliver long-distance clinical supervision must have a distinct set of competencies if they are to be adequately prepared to use technology to conduct supervision effectively. Exhibit 2.2-5 depicts the knowledge, skills, and attitudes required for two types of supervisors: those who supervise care providers in their delivery of TAC and those who use technology to deliver supervision.

Sample Telehealth Policies

Policies and procedures vary based on the type of technology used, risks associated with the intervention, the organization's regulatory climate, and the size and scope of the organization itself. The sample policies that follow are adapted from an internal policies and procedures manual developed by The Billings Clinic in Billings, MT, and provided by TIP Consensus Panelist Thelma McClosky Armstrong, M.A. They provide a snapshot of some issues that organizations may wish to consider in developing policies for technology-assisted services. Some of the sample policies clearly relate to telehealth for physical disorders or when a telehealth provider may need a close or thorough physical view of the client. Although telebehavioral health will not often require such a physical review of the client, the policies have been included to foster integrated care in case the telebehavioral health administrator wishes to share these sample policies with a general telehealth administrator.

Room Evaluation

The goal of this section is to provide a process for evaluation of a room to ensure optimal conditions during a telemedicine consult.

Sound:

- A quiet room is ideal. Fabric (e.g., curtains, walls) and carpeting are beneficial to reduce the reflection of sound in the room.
- Be aware of ambient noise. Listen for fans, furnace, air conditioning, overhead speakers, vacuuming, and noises from nearby rooms. Eliminate noises if possible.

Exhibit 2.2-5: Technological Competencies for Supervision

Knowledge Area	Supervision of TAC	Supervision via technology
All of the knowledge-related competencies required of clinicians	✓	✓
Ethical and confidentiality concerns related to transmitting clinical information	✓	✓
Benefits of technology-delivered supervision		✓
Scope of practice requirements and risks	✓	✓
Regulations related to delivery of technology-based care	✓	
Regulations related to delivery of technology-based supervision		✓
Organizational policies on privacy, confidentiality, security, and informed consent	✓	✓
Common ethical, privacy, security, and risk management issues faced when providing technology-based clinical care	✓	
Common ethical, privacy, security, and risk management issues faced when providing technology-based supervision		✓
Skill Area	**Supervision of TAC**	**Supervision via technology**
All of the skill-related competencies required of clinicians	✓	✓
Development of working alliances with and discerning nonverbal cues of supervisees when using technology		✓
Identification of red flags in clients through text, video, clinical records, and clinician reports	✓	✓
Strategies to structure technology-delivered supervision		✓
Ability to make a remote supervision session lively and relevant to clinical rather than administrative supervision needs		✓
Attitudes	**Supervision of TAC**	**Supervision via technology**
Interest in adoption of new practice/supervision techniques	✓	✓
Willingness to work through technology interruptions/glitches	✓	✓

- If the room has a phone, turn the ringer down. Mute or turn volume down on intercom systems if this is an option.

Walls and windows:

- Solid blue or gray walls are ideal. Avoid patterns on the wall or wallpaper.
- Walls behind the client may be covered with blue cloth. Blue enhances skin tones.
- Cover windows with darkening curtains.
- Note objects in the room that may be distracting to cameras and participants. Keep items such as light switches, screens, or reflective items out of frame.

Lighting:

- Fluorescent lighting creates good video. The bulbs should be 3200 to 4700 degrees

Kelvin. (Average fluorescent lighting is 3500 degrees Kelvin.)
- Most fluorescent lights are directed down into a room, resulting in darkened eyes.
- Ideal lights are directed to reflect off the ceiling, resulting in indirect lighting. Other options include front lighting or lights mounted on the walls to direct light at the front of participants.

Key points
- Solid backgrounds without patterns are preferred for video conferencing.
- Eliminate background noise.
- Curtains should block daylight coming through windows.

Client Positioning

This section provides instruction on positioning a client for an exam over telemedicine for the ultimate visual clarity and safety:
- Seat the client so that he/she has a clear view of the consultant on the monitor.
- Place the monitor so that the presenter may also see the video being sent to the provider.
- Note the camera angles needed to ensure that the provider sees the exam without the presenter blocking the view. This may involve the use of more than one camera for various parts of an exam.
- Determine the client's mobility status. The client may be asked to walk, jump, balance, squat, and arise from a seated position. Inform the provider of any concerns. Stay by the client's side for these assessments.
- Provide a safe, obstacle-free environment.
- The client may be initially seated in a chair and later move to an exam table.
- The client may need to turn so the camera views the back while assessing lung sounds or other views involving the back. This may also be accomplished by using two camera presets.
- Have blue cloth draping available during a consult. Blue enhances skin tones.

Key points
- A presenter needs to see both client and monitor during a telemedicine exam.
- Use blue towels or pads when examining skin to ensure accurate skin tones.

Camera Placement

This section gives instruction in the use and placement of cameras during a telemedicine consult. Several cameras can be used to evaluate clients for clinical visits, including polycom video conferencing cameras, document cameras, and peripheral cameras.

The high-definition camera:
- Is the primary camera.
- Frame the client in the picture slightly left of center to allow space for the picture-in-picture (PIP) at the consulting site without obscuring the client.
- If more than one person is attending the consult, place chairs close to one another.
- Preset camera settings so that each individual is visible alone in a close shot and together in another shot.
- Preset a close shot of the client's upper body and a full-body shot. The provider can better assess posture and nonverbal communication with these views.
- When adjusting your camera, try to fill the screen as much as possible with people rather than with the table, chairs, walls, lights, or the floor.

The document camera:
- Use a preset for the document camera.
- May be used by either the provider or the client to share printed matter, pictures, X-rays, or three-dimensional objects.
- May be used to assess hands or arms. The lighting and magnification are ideal. Use a blue background to enhance skin tones.

The peripheral camera:

- Use a tripod. Even minimal movement made while holding the camera is magnified on the screen. When practical, it is preferable to use the tripod.
- Use a preset for the peripheral camera.
- Refer to the camera instructions to white balance and focus the camera prior to each use. Compare skin color on the monitor screen with actual color off camera to determine accurate color settings.
- To assess gait, place the camera 12 to 18 inches off the floor. The provider must see the feet, legs, arms, and torso of the client.
- When assessing skin, use a blue cloth pad or blue drape for the background.
- For close shots of the skin, it is best to set the camera for a wide shot and then move the camera very close to the skin.
- Be aware of camera angles when showing the right and left sides of the body—for example, when shooting arm reflexes. Allow the presenter to be in the alignment needed and work around her/him.

Key points

- Ensure that the peripheral camera has been white balanced every time it is used.
- Set the camera on wide angle and bring it in close to get a clear picture of the skin.
- Fill the screen as much as possible with the individual(s) in the room.

Microphone Use

This section directs the placement and use of the microphone for telemedicine consults:

- Place the microphone at least 3 to 5 feet away from the video conferencing unit.
- Place the microphone at least 2 feet from the speaker facing away from the monitor.
- Speak in a normal voice; do not shout.
- Note that the microphone is very sensitive and will pick up and amplify noises such as clicking pens and shuffling paper.
- If the microphone must be relocated during a conference, mute the microphone and then move it to the new location.
- If one site hears an echo or sound distortion over the video conferencing equipment, the most likely cause is microphone placement at the site. The solution is for the offending site to move the microphone away from the monitor speaker and/or turn down the volume.
- Mute microphones when a call comes into the site to protect the confidentiality of the participants until they are ready to join the conference.
- Instruct the users in the control of the mute button and the volume adjustment on the remote.
- Limit side conversations if there are additional people involved in the consultation.
- Ask the people at the other site if they can hear. Have them introduce themselves to evaluate sound quality.
- Pause briefly for others to answer or make comments, due to the fact that the audio has a very slight delay.

Key points

- Place the microphone at least 3 feet from the video conferencing unit.
- Check the microphone after the call connects to ensure that the mute is off.
- Ask the site you are connected with to check microphone placement and volume if your voice echoes back,.

Privacy

This section offers instruction for ensuring that telemedicine visits are private:

- Place a sign on the room's door to noting that a private consult is in session.
- Allow the consulting provider or designee to introduce any other individual(s) in the room and ask the client's permission to have that individual(s) present during the

consult. If the client denies permission, the individual(s) will exit the room.
- Allow the consulting provider to pan the room with the camera at the client's request to assure the client that no other parties are attending the consult.
- Ask the client his or her preference regarding the site facilitator staying in the room. Repeat this question at each visit.
- Have the site facilitator wait outside the room or leave a number that the client may call for assistance if he or she is not in the room for the consult.
- If the facilitator will not remain in the room for the consult, adjust the camera prior to exiting so that the provider sees the upper half of the client's body, unless instructed otherwise.
- Inform clients about the video conferencing system and its capabilities, risks, and benefits. Review with them the process that will occur during the consultation.
- Obtain consents for participation in the telemedicine consultation. Maintain the original in the client's medical record at the consulting site. A copy may be made for the records at the client's site.
- Give clients the option of terminating the telemedicine encounter at any time and opting to see the consulting physician in person.

Key points

- A client shall sign a consent form for a telemedicine consult.
- The client shall be made aware of all individuals in the room at the far site.
- The site facilitator shall be available to the client during a consult.

Client Preparation

The goal of this section is to provide instruction in educating the client in preparation for a telemedicine encounter:

- When the initial telemedicine appointment is made, instruct the client to arrive 15 to 30 minutes prior to the appointment with the consultant. Instruct those who must complete registration forms to arrive 30 minutes prior to the appointment and to bring insurance cards and a copy of their current prescriptions.
- In some cases, the consulting doctor's office may send forms to the client to be completed and brought to the visit or mailed back prior to the visit. If a client arrives with completed forms, fax these forms to the consulting provider.
- Give the client the site location name and address and the site facilitator's name and phone number.
- If the client is seeing a [agency name] provider, the rural site will register him or her as a [agency name] client. In the case of a follow-up visit by a previously registered client, further registration may be unnecessary. The telemedicine nurse will notify the site if registration is required. The client bill will come from the consulting provider.
- Introduce yourself to the client and escort the client to the exam room.
- Explain the telemedicine visit and give the client a chance to ask questions.
- Cover these points:
  - The provider is located at an office in a distant town.
  - The client sees the provider on a monitor just as the provider sees the client on a monitor. There are cameras and microphones at both sites.
  - The consultation is private.
  - Ensure the introduction of each person in the rooms at both sites and the issuing of statements as to the role each person plays.
  - Introduce any additional peripheral devices to be used: cameras, electronic stethoscope, document stand, and video

otoscope. There may be a need to get a close view of the client using a camera during the consult.
  - The client may be asked to don a gown so that the physical assessment may be completed.
  - Take turns speaking so that all participants can hear the conversation. If the provider wants a certain person in the room to answer a question, the provider will specifically address that individual. Allow the queried individual to respond. Sometimes, providers are assessing speech, cognition, or memory.
  - If the client is uncomfortable with any part of the exam, he or she may refuse to continue that portion of the exam.
  - If the client wants to speak to the provider privately, instruct him or her to let the site facilitator know.
  - Encourage the client/family to ask the provider questions.

Key points

- Only clients seeing a [agency name] provider will register using the [agency name] forms.
- The site facilitator shall explain that the telemedicine visit is private.
- Clients should be instructed to take turns speaking during a visit.

Scheduling Telemedicine Appointments

This section describes a process for scheduling telemedicine appointments.

Option one:

1. When a provider or client requests a telemedicine appointment, call the telemedicine office. (Provider <phone number> or Main Office <phone number>)
2. Initial information required includes the type of specialty consult needed, the referring provider's name and number, and the sites connecting for the consult.
3. Telemedicine staff may need to contact a consulting provider to determine whether the request can be met. The consulting provider may request further medical information to determine whether a client is appropriate for a telemedicine consult.
4. The telemedicine office will set the date and time after consulting with the client, provider, and any other individuals who must be present (presenters or referring providers) and the schedule. Site facilitators may assist in this communication.
5. Client initials are logged in the scheduler. The telemedicine nurse or consulting office staff notifies the site of the client's name.
6. The telemedicine nurse will determine what equipment needs there will be for the appointment and inform the site; note these in the reservation.
7. The appointment scheduler will email appointment information automatically to all involved parties.
8. The scheduling of follow-up appointments will occur in the same manner as described in Steps 1-7.

Option two:

1. When a client or provider requests a telemedicine appointment, place a call to the telemedicine office, the central appointment desk <phone number>, or the consulting specialist's office.
2. Request client information from the caller.
3. The scheduling process continues with steps 5, 6, 7, and 8 under option one.

Key points

- A medical consult over telemedicine requires scheduling of the client, the consulting provider, the rooms at both sites, and possibly a presenter.

- The telemedicine site knows which equipment to set up by referring to the telemedicine scheduler.
- Client information on the telemedicine scheduler is limited to the client initials.

Telemedicine Visit Documentation

The goal of this section is to provide instruction to ensure that proper documentation occurs with telemedicine consults:

- Ensure that a client who participates in a telemedicine visit signs a Client Consent for a Telemedicine Encounter form. If the client previously signed this document, the client need not sign again. Send the original to the consulting site to be filed in the medical records the provider's office keeps. Give a copy to the client.
- Register clients seeing [agency name] providers for the first into the system. Clients must complete forms in the registration packets located at the rural site including Conditions of Registration, [agency name] Face Sheet, and Medicare Secondary Payer (if Medicare eligible). Refer to the [agency name] Telemedicine Registration for New Clients instructions. Send original documents to the telemedicine office for inclusion in the [agency name] chart.
- Offer each client a question and answer form to complete and a self-addressed stamped envelope to mail the completed form back to the [agency name] office if desired. The site facilitator will send the completed form to the [agency name] office in the event that the client leaves the form at the rural site.
- Allow clients to bring to the visit any forms they have received from providers to complete prior to the visit, and send these forms to the appropriate provider.
- Before the visit, review clinical guidelines to determine if this type of visit requires additional information or questionnaires.
- Consider making copies of these documents accessible on the members-only section of the [agency name] Web site.
- Prepare for visits that may require documentation of client vital signs (e.g., weight, temperature, pulse, respiration, blood pressure). The site facilitator may document vital signs on the visit template if appropriate and send them to the provider or verbally report them to the consultant.
- Keep all original documentation at the consulting provider site, as is the case with in-person care. Keep copies at the client site at the discretion of the regional center.

Key points

- Have clients sign a consent form for a telemedicine visit even if you are uncertain as to whether it is necessary.
- Keep all original telemedicine documents at the consulting site in the client's chart.

Records Access

This section ensures that consultants have documents in place for a telemedicine consult:

- Make client records stored at the client site readily available during the consult.
- The consulting provider or staff person working with the provider may request that you provide certain documents prior to the consult.
- Follow the rules that govern sharing of medical information; a consulting provider may access client information from a referring doctor.
- Documents requested may include a referral note, lab reports, X-ray reports or films, scans, or other studies.
- Send client records at the consulting site to the provider in the same manner as occurs with an onsite visit.
- Make a computer with access to the client's electronic medical record available for use by the consultant at the time of the visit.

Key points

- It is permissible to share site medical records with a consulting doctor.
- Send documents requested by the consultant via secure fax, mail, or a picture archiving and communication system.

Prescriptions

This section describes a process for ensuring that a client receives the required prescription(s) following a telemedicine encounter:

- During a consult, a provider may choose to order a new medication or to change the medication the client is currently using.
- The provider may ask the client what pharmacy he or she uses and order the prescription directly.
- The provider may mail a prescription to the client.
- The provider may fax a prescription to the pharmacy used by the client.

Key points

- The provider may call a new medication order into the client's pharmacy directly.
- The provider may mail a prescription to the client.

Additional Tips

- When presenting a client or planning to be on camera for another reason, be aware of clothing choices. Solids are preferable to checks, plaids, geometric shapes, or stripes. Red, vibrant orange, hot pink, and white may cause a color bleeding effect over video. The color of choice is blue, as it enhances natural skin tones.
- A blue drape or cloth pad should be available for all medical consults. Covering carpet to examine feet or draping the client to better examine a limb or face or cover distracting clothing is important to provide quality pictures.
- Client gowns shall be blue (preferably) or a solid color.
- If a provider inquires about a specific area on the client, offer to show that area to allow for assessment. Providers may not be certain of the technology or the convenience of moving the cameras.
- Observe the client for gait, posture, affect, care of clothing, odor (alcohol or body odor), and tremors. Report observations to the provider via the system or by phone when the client is not present. If appropriate, bring up the topic during the encounter. You may say, "I noticed that you are unsteady when you are walking."
- Model good communication for the client. Encourage the client to ask questions of the provider. If the client has shared a concern prior to the visit, be certain to bring up the topic for the provider to address (e.g., "Mary mentioned that she has noted increased ringing in her ears since she last saw you").
- You are the connection to the provider. You are the key to a successful consult.

Key points

- Presenters should wear clothing in a solid color without patterns.
- Clients may forget important questions once the provider enters the room. If a client shared a concern prior to the provider being present, be certain that it is addressed in the visit.
- Show the provider areas mentioned so that he/she sees everything in question.

The policies presented in this section serve only as an example of how one agency has formulated its telehealth policies. Every administrator must make decisions that reflect the clients, the agency, the services, and the circumstances at hand. Such policies will require updating due to changing needs, circumstances, and technologies.

Appendix A—Bibliography

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Appendix D—Acknowledgments

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SAMHSA TIPs and Publications Based on TIPs

What Is a TIP?

Treatment Improvement Protocols (TIPs) are the products of a systematic and innovative process that brings together clinicians, researchers, program managers, policymakers, and other Federal and non-Federal experts to reach consensus on state-of-the-art treatment practices. TIPs are developed under the Substance Abuse and Mental Health Services Administration's (SAMHSA's) Knowledge Application Program (KAP) to improve the treatment capabilities of the Nation's alcohol and drug abuse treatment service system.

What Is a Quick Guide?

A Quick Guide clearly and concisely presents the primary information from a TIP in a pocket-sized booklet. Each Quick Guide is divided into sections to help readers quickly locate relevant material. Some contain glossaries of terms or lists of resources. Page numbers from the original TIP are referenced so providers can refer back to the source document for more information.

What Are KAP Keys?

Also based on TIPs, KAP Keys are handy, durable tools. Keys may include assessment or screening instruments, checklists, and summaries of treatment phases. Printed on coated paper, each KAP Keys set is fastened together with a key ring and can be kept within a treatment provider's reach and consulted frequently. The Keys allow you, the busy clinician or program administrator, to locate information easily and to use this information to enhance treatment services.

Ordering Information

Publications may be ordered or downloaded for free at http://store.samhsa.gov. To order over the phone, please call 1-877-SAMHSA-7 (1-877-726-4727) (English and Español).

TIP 1 **State Methadone Treatment Guidelines**—*Replaced by TIP 43*

TIP 2 **Pregnant, Substance-Using Women**—*Replaced by TIP 51*

TIP 3 **Screening and Assessment of Alcohol- and Other Drug-Abusing Adolescents**—*Replaced by TIP 31*

TIP 4 **Guidelines for the Treatment of Alcohol- and Other Drug-Abusing Adolescents**—*Replaced by TIP 32*

TIP 5 **Improving Treatment for Drug-Exposed Infants**

TIP 6 **Screening for Infectious Diseases Among Substance Abusers**—*Archived*

TIP 7 **Screening and Assessment for Alcohol and Other Drug Abuse Among Adults in the Criminal Justice System**—*Replaced by TIP 44*

TIP 8 **Intensive Outpatient Treatment for Alcohol and Other Drug Abuse**—*Replaced by TIPs 46 and 47*

TIP 9 **Assessment and Treatment of Patients With Coexisting Mental Illness and Alcohol and Other Drug Abuse**—*Replaced by TIP 42*

TIP 10 **Assessment and Treatment of Cocaine-Abusing Methadone-Maintained Patients**—*Replaced by TIP 43*

TIP 11 **Simple Screening Instruments for Outreach for Alcohol and Other Drug Abuse and Infectious Diseases**—*Replaced by TIP 53*

TIP 12 **Combining Substance Abuse Treatment With Intermediate Sanctions for Adults in the Criminal Justice System**—*Replaced by TIP 44*

TIP 13 **Role and Current Status of Patient Placement Criteria in the Treatment of Substance Use Disorders**
Quick Guide for Clinicians
Quick Guide for Administrators
KAP Keys for Clinicians

TIP 14 **Developing State Outcomes Monitoring Systems for Alcohol and Other Drug Abuse Treatment**

TIP 15 **Treatment for HIV-Infected Alcohol and Other Drug Abusers**—*Replaced by TIP 37*

TIP 16 Alcohol and Other Drug Screening of Hospitalized Trauma Patients
Quick Guide for Clinicians
KAP Keys for Clinicians

TIP 17 Planning for Alcohol and Other Drug Abuse Treatment for Adults in the Criminal Justice System—*Replaced by TIP 44*

TIP 18 The Tuberculosis Epidemic: Legal and Ethical Issues for Alcohol and Other Drug Abuse Treatment Providers—*Archived*

TIP 19 Detoxification From Alcohol and Other Drugs—*Replaced by TIP 45*

TIP 20 Matching Treatment to Patient Needs in Opioid Substitution Therapy—*Replaced by TIP 43*

TIP 21 Combining Alcohol and Other Drug Abuse Treatment With Diversion for Juveniles in the Justice System
Quick Guide for Clinicians and Administrators

TIP 22 LAAM in the Treatment of Opiate Addiction—*Replaced by TIP 43*

TIP 23 Treatment Drug Courts: Integrating Substance Abuse Treatment With Legal Case Processing
Quick Guide for Administrators

TIP 24 A Guide to Substance Abuse Services for Primary Care Clinicians
Concise Desk Reference Guide
Quick Guide for Clinicians
KAP Keys for Clinicians

TIP 25 Substance Abuse Treatment and Domestic Violence
Linking Substance Abuse Treatment and Domestic Violence Services: A Guide for Treatment Providers
Linking Substance Abuse Treatment and Domestic Violence Services: A Guide for Administrators
Quick Guide for Clinicians
KAP Keys for Clinicians

TIP 26 Substance Abuse Among Older Adults
Substance Abuse Among Older Adults: A Guide for Treatment Providers
Substance Abuse Among Older Adults: A Guide for Social Service Providers
Substance Abuse Among Older Adults: Physician's Guide
Quick Guide for Clinicians
KAP Keys for Clinicians

TIP 27 Comprehensive Case Management for Substance Abuse Treatment
Case Management for Substance Abuse Treatment: A Guide for Treatment Providers
Case Management for Substance Abuse Treatment: A Guide for Administrators
Quick Guide for Clinicians
Quick Guide for Administrators

TIP 28 Naltrexone and Alcoholism Treatment — *Replaced by TIP 49*

TIP 29 Substance Use Disorder Treatment for People With Physical and Cognitive Disabilities
Quick Guide for Clinicians
Quick Guide for Administrators
KAP Keys for Clinicians

TIP 30 Continuity of Offender Treatment for Substance Use Disorders From Institution to Community
Quick Guide for Clinicians
KAP Keys for Clinicians

TIP 31 Screening and Assessing Adolescents for Substance Use Disorders
See companion products for TIP 32.

TIP 32 Treatment of Adolescents With Substance Use Disorders
Quick Guide for Clinicians
KAP Keys for Clinicians

TIP 33 Treatment for Stimulant Use Disorders
Quick Guide for Clinicians
KAP Keys for Clinicians

TIP 34 Brief Interventions and Brief Therapies for Substance Abuse
Quick Guide for Clinicians
KAP Keys for Clinicians

TIP 35 Enhancing Motivation for Change in Substance Abuse Treatment
Quick Guide for Clinicians
KAP Keys for Clinicians

TIP 36 Substance Abuse Treatment for Persons With Child Abuse and Neglect Issues
Quick Guide for Clinicians
KAP Keys for Clinicians
Helping Yourself Heal: A Recovering Woman's Guide to Coping With Childhood Abuse Issues
Also available in Spanish
Helping Yourself Heal: A Recovering Man's Guide to Coping With the Effects of Childhood Abuse
Also available in Spanish

TIP 37 Substance Abuse Treatment for Persons With HIV/AIDS
Quick Guide for Clinicians
KAP Keys for Clinicians
Drugs, Alcohol, and HIV/AIDS: A Consumer Guide
Also available in Spanish
Drugs, Alcohol, and HIV/AIDS: A Consumer Guide for African Americans

TIP 38 Integrating Substance Abuse Treatment and Vocational Services
Quick Guide for Clinicians
Quick Guide for Administrators
KAP Keys for Clinicians

TIP 39 Substance Abuse Treatment and Family Therapy
Quick Guide for Clinicians
Quick Guide for Administrators
Family Therapy Can Help: For People in Recovery From Mental Illness or Addiction

TIP 40 Clinical Guidelines for the Use of Buprenorphine in the Treatment of Opioid Addiction
Quick Guide for Physicians
KAP Keys for Physicians

TIP 41 Substance Abuse Treatment: Group Therapy
Quick Guide for Clinicians

TIP 42 Substance Abuse Treatment for Persons With Co-Occurring Disorders
Quick Guide for Clinicians
Quick Guide for Administrators
KAP Keys for Clinicians

TIP 43 Medication-Assisted Treatment for Opioid Addiction in Opioid Treatment Programs
Quick Guide for Clinicians
KAP Keys for Clinicians

TIP 44 Substance Abuse Treatment for Adults in the Criminal Justice System
Quick Guide for Clinicians
KAP Keys for Clinicians

TIP 45 Detoxification and Substance Abuse Treatment
Quick Guide for Clinicians
Quick Guide for Administrators
KAP Keys for Clinicians

TIP 46 Substance Abuse: Administrative Issues in Outpatient Treatment
Quick Guide for Administrators

TIP 47 Substance Abuse: Clinical Issues in Outpatient Treatment
Quick Guide for Clinicians
KAP Keys for Clinicians

TIP 48 Managing Depressive Symptoms in Substance Abuse Clients During Early Recovery

TIP 49 Incorporating Alcohol Pharmacotherapies Into Medical Practice
Quick Guide for Counselors
Quick Guide for Physicians
KAP Keys for Clinicians

TIP 50 Addressing Suicidal Thoughts and Behaviors in Substance Abuse Treatment
Quick Guide for Clinicians
Quick Guide for Administrators

TIP 51 Substance Abuse Treatment: Addressing the Specific Needs of Women
KAP Keys for Clinicians
Quick Guide for Clinicians
Quick Guide for Administrators

TIP 52 Clinical Supervision and Professional Development of the Substance Abuse Counselor
Quick Guide for Clinical Supervisors
Quick Guide for Administrators

TIP 53 Addressing Viral Hepatitis in People With Substance Use Disorders
Quick Guide for Clinicians and Administrators
KAP Keys for Clinicians

TIP 54 Managing Chronic Pain in Adults With or in Recovery From Substance Use Disorders
Quick Guide for Clinicians
KAP Keys for Clinicians
You Can Manage Your Chronic Pain To Live a Good Life: A Guide for People in Recovery From Mental Illness or Addiction

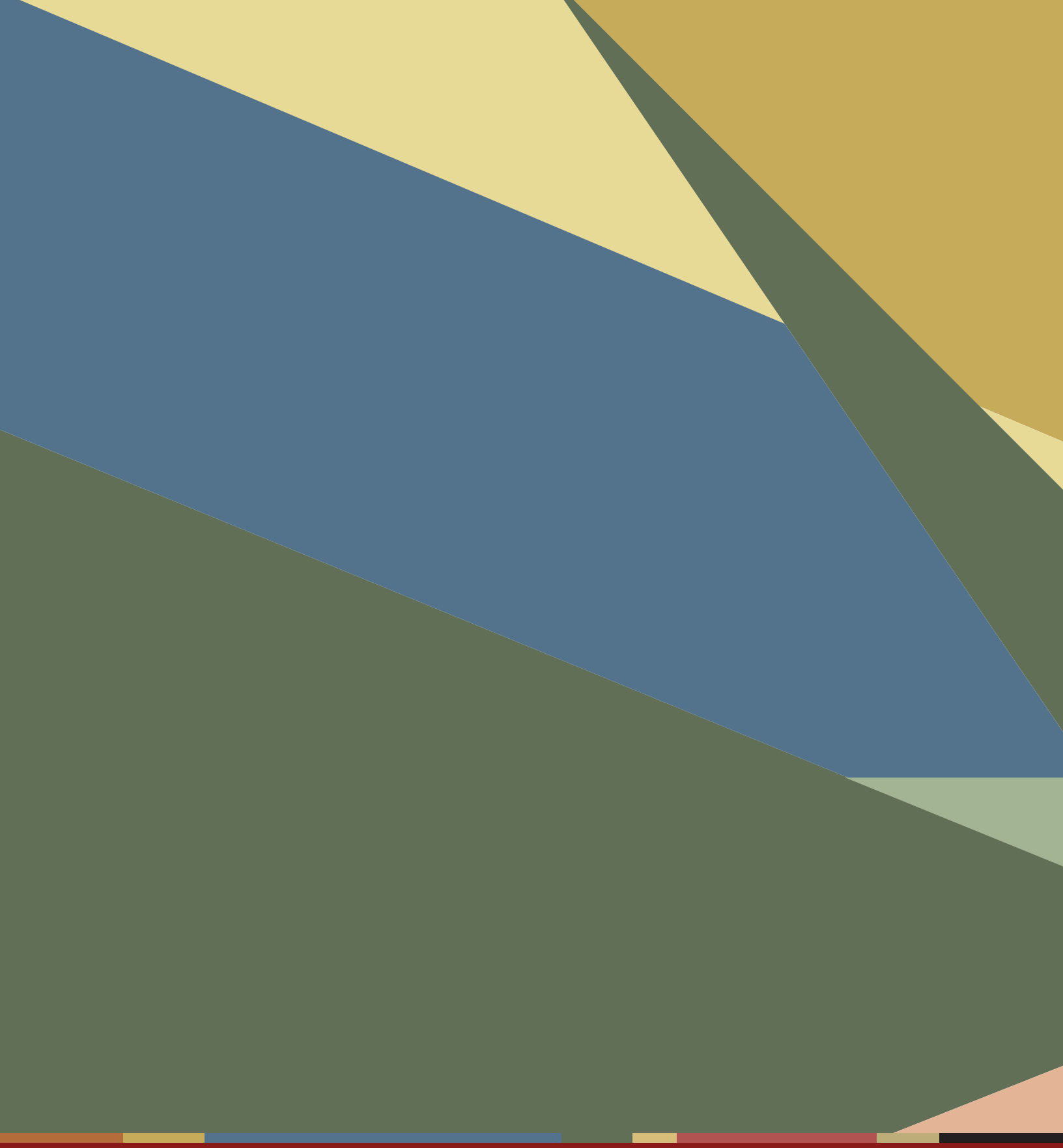
TIP 55 Behavioral Health Services for People Who Are Homeless

TIP 56 Addressing the Specific Behavioral Health Needs of Men
Quick Guide for Clinicians
KAP Keys for Clinicians

TIP 57 Trauma-Informed Care in Behavioral Health Services
Quick Guide for Clinicians
KAP Keys for Clinicians

TIP 58 Addressing Fetal Alcohol Spectrum Disorders (FASD)

TIP 59 Improving Cultural Competence



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Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Treatment

Appendix A: Using Technology-Based Therapeutic Tools in Behavioral Health Services

Directions: To receive credits for this course, you are required to take a post test and receive a passing score. We have set a minimum standard of 80% as the passing score to assure the highest standard of knowledge retention and understanding. The test is comprised of multiple choice and/or true/false questions that will investigate your knowledge and understanding of the materials found in this CEU Matrix – The Institute for Addiction and Criminal Justice distance learning course.

After you complete your reading and review of this material, you will need to answer each of the test questions. Then, submit your test to us for processing. This can be done in the following manner:

Submit your test via the Internet. All of our tests are posted electronically, allowing immediate test results and quicker processing. First, you may want to answer your post test questions using the answer sheet found at the end of this appendix. Then, return to your browser and go to the Student Center located at:

http://www.ceumatrix.com/studentcenter

Once there, log in as a Returning Customer using your Email Address and Password. Then click on 'View Lesson Quiz' and you will be presented with the electronic exam.

To take the exam, simply select from the choices of "a" through "e" for each multiple choice question. For true/false questions, select either "a" for true, or "b" for false. Once you are done, simply click on the submit button at the bottom of the page. Your exam will be graded and you will receive your results immediately. If your score is 80% or greater, you will receive a link to the course evaluation. You will also receive a link to the Certificate of Completion. This is the final step in the process, and you may save and/or print your Certificate of Completion.

If, however, you do not achieve a passing score of at least 80%, you will need to review the course material and return to the Student Center to resubmit your answers.

NOTE: THE EXAM QUESTIONS AND /OR ANSWERS MAY BE IN A DIFERENT ORDER IN THE ONLINE EXAM

Answer the following questions by selecting the most appropriate response.

1. Technology-based therapeutic offer all of the following except:
   a. Clinical information for clients
   b. Support to diverse audiences
   c. Provide social and supportive functions otherwise inaccessible
   d. Recommendations for outside referrals

2. One risk of using technology-assisted care is using an employer-hosted email server.
   a. True
   b. False

3. Policies regarding use of communication technologies should including which of the following:
   a. When each the potential risk and benefits of using technology is or is not appropriate for use
   b. The potential risk and benefits of using technology
   c. Which technologies are researched-based and which are not
   d. A and B

4. All of the following are examples of synchronously communication except
   a. Phone call
   b. Online support group
   c. Video conference
   d. Chat rooms

5. Embedding elements of cognitive-behavioral therapy on mobile devices can significantly decrease treatment retention and demote abstinence as part of outpatient substance use disorder treatment.
   a. True
   b. False

6. Self-directed tools are not particularly useful for which clients
   a. Clients with social phobia
   b. Teens and young adults
   c. Clients with several emotional distress
   d. None of the above

7. Text based communication are likely unencrypted, unsecured, and can be accessed by third parties which pose serious risk to clients because they are vulnerable to security threats
   a. True
   b. False

8. Technology-based therapeutic tools can be used in which areas of behavioral health services
    a. Screening & Assessment
    b. Prevention
    c. Continuing Care
    d. All of the above

9. Computerized treatments for mental disorders have been most widely developed and used for
    a. Anxiety
    b. Traumatic Stress
    c. Mood disorders
    d. All of the above

10. What is a key benefit of telephone based counseling
    a. Synchronously
    b. Accessibliity
    c. Confidentiality
    d. None of the above

11. What area of concern is a high risk when using mobile computing devices
    a. Updates
    b. Malware
    c. Backups
    d. Platform issues

12. Which is not an essential element of inform consent when participating in technology assisted care
    a. Best practice guidelines
    b. Privacy risk
    c. Emergency procedures
    d. Potential benefits of service

13. What variable does not influence access to technology-assisted care
    a. Location
    b. Socioeconomic status
    c. Mental disorders
    d. Demographics

14. Electronic health records are intended to improve
    a. Record keeping
    b. Quality of patient care
    c. Outcome reporting
    d. All of the above

15. Technology-assisted care has the potential to offer the latest scientific advances in behavioral health services rapidly and continuously
    a. True
    b. False

16. Considerations in developing a web based outreach program include the following except
    a. Where the data will be hosted, stored, backed up and maintained
    b. Ability to involuntarily admit a person to crisis stabilization who is in significant distress or at high risk for self-harm
    c. Which client demographic does the program best work
    d. Assurance that stored electronic data remains confidential and encrypted

17. To support realistic expectations, clients using TBH should be fully informed about the following except
    a. Counselor availability
    b. How long it may take before receiving a response to sent messages
    c. Their requirement to follow through with behavioral contracts
    d. How the system platform and client activity is monitored

18. Situations in which a check-in process can be beneficial include the following except
    a. Transitioning from a higher to a lower level of care
    b. Maintaining treatment modalities or approaches familiar to the client
    c. Episodes of increased distress or adjustments to medications
    d. Episodes associated with past or potential risk of relapse or regression of symptoms

19. To engage a client in a change process when they may be resistant to computerized check-in, strategies include using
    a. Motivational enhancement theory strategies and skills
    b. Downplaying the aspect of data collection for use in monitoring
    c. Assisting clients identify a goal on their recovery plan and link progress toward the goal
    d. Describing the value of program compliance and the client's input to program success

20. Technical consideration for video and telephone groups should
    a. Consider adequate bandwidth at provider and client ends to facilitate adequate image resolution and sound quality
    b. Include a backup generator for interrupted internet services
    c. Provide a secure cell phone line for backup and encrypted messaging
    d. Secure verbal releases of all participants before entering a chat room

21. Considerations for management of client interactions in telephone or video group meetings would not include
    a. Establishing clear group rules / guidelines
    b. Use of flexibility so everyone can have a chance to talk
    c. Use of resource lists for quick referrals
    d. Identify the needs of each participant to ascertain priority issues to address

22. When considering working with a client who is deaf or hard of hearing the following are important to remember
    a. Setting up the space to work with an interpreter
    b. Communication preference of the client
    c. Securing a Certified Deaf Interpreter
    d. To speak to the client using an interpreter

23. Deaf clients in treatment will likely present with more types and levels of resistance than do hearing clients.
    a. True
    b. False

24. Technology based treatment extenders replace standard treatment and should augment, but not supercede the help and support of a counselor
    a. True
    b. False

25. Texting via cell phones and other devices is quick and convenient for the client – but not secure
    a. True
    b. False

26. Behavioral health apps are useful in the following except
    a. A recovery tool to link persons to virtual support communities and networks
    b. A monitoring tool for tracking specific health conditions such as blood pressure of blood sugar
    c. A tracking tool to set treatment goals and monitor progress toward them
    d. A tracking tool to set personal goals and monitor progress toward them

27. Telemental health, telebehavioral health. and TAC are interchangeable terms. What does TAC stand for?
    a. Telemental assisted care
    b. Telephone assisted confidentiality
    c. Technology assisted care
    d. Technology adoption considerations

28. TAC creates unique ethical and legal concerns that you, as a behavioral program administrator, will need to address.
    a. True
    b. False

29. Who should be involved in developing TAC processes?
    a. Counselors
    b. Clients
    c. Supervisors
    d. All of the Above

30. Which is not true in terms of the five principles for effective implementation of change:
    a. Identify a change leader.
    b. Look to other organizations for ideas.
    c. Do not involve clients in the change process.
    d. Focus on an important problem to be solved by implementing the change.

31. Counselor who have strong in-person counseling skills are competent in delivering TAC.
    a. True
    b. False

32. Which tools can be used to deliver supervision?
    a. Email
    b. Telephone conferencing
    c. Web cam
    d. All of the Above

33. When implementing TAC, HIPPA dictates the privacy and security safe-guards required for the protection of protected health information. Additional considerations include
    a. Who is authorized to issue and change passwords
    b. How clients are restricted from PHI
    c. Documentation entry timelines
    d. Associate Business Authorizations

34. Who is responsible for addressing who is authorized to access data and how access restrictions are implemented?
    a. The supervisor
    b. HIPAA
    c. Both A & B
    d. None of the Above

35. When providing TAC, which of the following have implications for privacy.
    a. Ergonomic considerations of equipment and physical space
    b. Visual and audio privacy and lighting
    c. Physical location of counselors and clients
    d. Introduction of clients to one another

36. As part of TAC, clients can be sent a text message as a reminder for medication and appointments, regularly scheduled educational or preventative text messages.
    a. True
    b. False

37. TAC is a service that is always reimbursed through insurance.
    a. True
    b. False

38. Privacy is defined as:
    a. The duty of professionals who are granted access to private information to protect its privacy.
    b. The right of the client to control his or her own health data.
    c. Both A & B
    d. None of the Above

39. How often should clients be advised of the risk and benefits of participating in TAC?
    a. Ongoing
    b. Once a year
    c. Twice a year
    d. During the admission process

40. The process of obtaining informed consent from clients should include their provision of emergency contact information and their receipt of a disclosure of the procedures their counselor and/or other agency staff will use, should the counselor determine that the client may endanger himself or herself or others.
    a. True
    b. False

41. Behavioral health organizations providing TAC should adopt polices and practices that ensure coordination of care is shared among which of the staff members communicating with the given client.
    a. The counselor and provider
    b. The counselor and supervisor
    c. All staff members who will be communicating with the client
    d. None of the Above

CEU Matrix

Course Evaluation – Hard Copy Format

The final step in the process required to obtain your course certificate is to complete this course evaluation. These evaluations are used to assist us in making sure that the course content meets the needs and expectations of our students. Please fill in the information completely and include any comments in the spaces provided. **If you submit your evaluation online, you do <u>not</u> need to return this form.**

NAME: _____

COURSE TITLE: _____

DATE: _____

<u>COURSE CONTENT</u>		
Information presented met the goals and objectives stated for this course	☐ Start Over ☐ Good ☐ Excellent	☐ Needs work ☐ Very Good
Information was relevant	☐ Start Over ☐ Good ☐ Excellent	☐ Needs work ☐ Very Good
Information was interesting	☐ Start Over ☐ Good ☐ Excellent	☐ Needs work ☐ Very Good
Information will be useful in my work	☐ Start Over ☐ Good ☐ Excellent	☐ Needs work ☐ Very Good
Format of course was clear	☐ Start Over ☐ Good ☐ Excellent	☐ Needs work ☐ Very Good
POST TEST		
Questions covered course materials	☐ Start Over ☐ Good ☐ Excellent	☐ Needs work ☐ Very Good
Questions were clear	☐ Start Over ☐ Good ☐ Excellent	☐ Needs work ☐ Very Good
Answer sheet was easy to use	☐ Start Over ☐ Good ☐ Excellent	☐ Needs work ☐ Very Good

COURSE MECHANICS		
Course materials were well organized	☐ Start Over ☐ Good ☐ Excellent	☐ Needs work ☐ Very Good
Materials were received in a timely manner	☐ Start Over ☐ Good ☐ Excellent	☐ Needs work ☐ Very Good
Cost of course was reasonable	☐ Start Over ☐ Good ☐ Excellent	☐ Needs work ☐ Very Good
OVERALL RATING		
I give this distance learning course an overall rating of:	☐ Start Over ☐ Good ☐ Excellent	☐ Needs work ☐ Very Good
FEEDBACK		
How did you hear about CEU Matrix?	☐ Web Search Engine ☐ Mailing ☐ Telephone Contact ☐ E-mail posting ☐ Other Linkage ☐ FMS Advertisement ☐ Other: _____	
What I liked BEST about this course:		
I would suggest the following IMPROVEMENTS:		
Please tell us how long it took you to complete the course, post-test and evaluation:	_____ minutes were spent on this course.	
Other COMMENTS:		