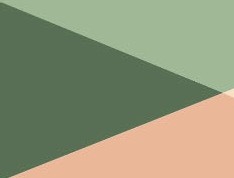


A TREATMENT IMPROVEMENT PROTOCOL

**Using Technology-Based Therapeutic Tools in Behavioral Health Services**





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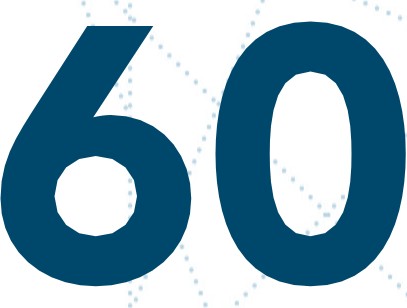
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Acknowledgments

This publication was produced under the Knowledge Application Program (KAP) contract numbers 270-09-0307 and 270-14-0445 with the Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services (HHS).

Christina Currier and Suzanne Wise served as the Contracting Officer's Representatives, and Candi Byrne served as KAP Project Coordinator.

Disclaimer

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Recommended Citation

Substance Abuse and Mental Health Services Administration. *Using Technology-Based Therapeutic Tools in Behavioral Health Services.* Treatment Improvement Protocol (TIP) Series

60. HHS Publication No. (SMA) 15-4924. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

Originating Office

Qiality Improvement and Workforce Development Branch, Division of Services Improvement, Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, 1 Choke Cherry Road, Rockville, **MD** 20857.

HHS Publication No. (SMA) 15-4924 Printed 2015

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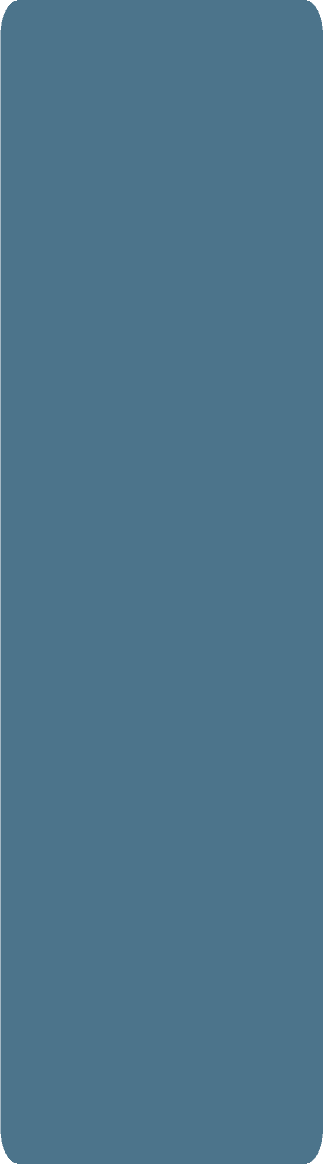
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**Part 2, Chapter 1**

### Introduction



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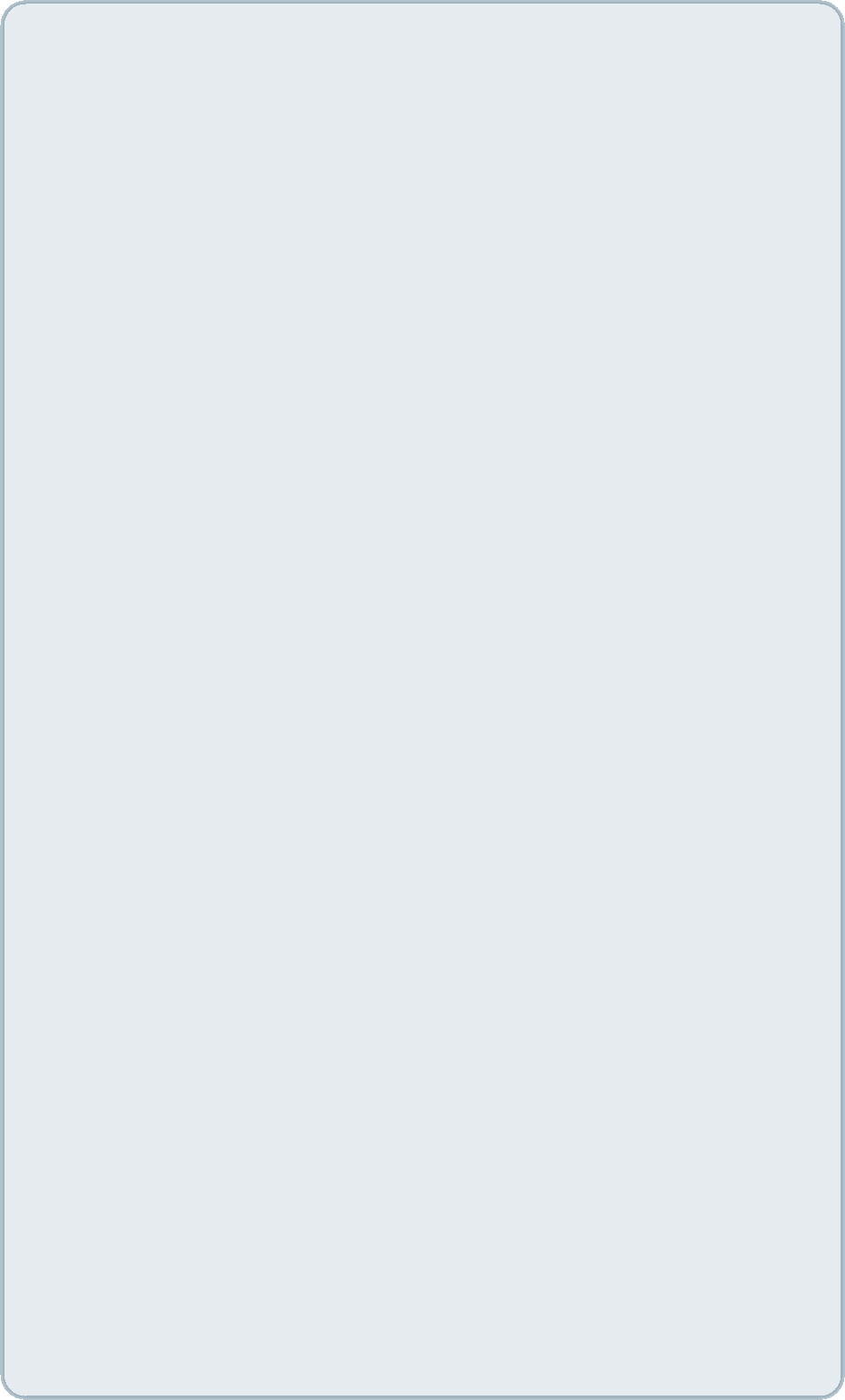
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* Adoption and Sustainability Considerations
* Technological Capacity Considerations
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* Data Management Considerations
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* Regulatory Considerations

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 adminis­ trative 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 tech­ nology 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 treat­ ment 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 im­ prove 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, & Felk­ er, 2012; Godleski, Darkins, & Peters, 2012; Koch, 2012), sub­ stance use disorder treatment clients (King et al., 2009), older adults (Ramos-Rios, 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 for­ mats 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 peo­ ple 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,



**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.

2010), and reducing negative symptoms (Barak, Klein, & Proudfoot, 2009; Sloan, Gallagher, Feinstein, Lee, & Pruneau, 2011). The use of guided mutual help or social net­ working 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 effective­ ness, especially when coupled with support from a counselor (Andersson & Cuijpers, 2009). Thus, TAC can address some pressing needs in behavioral health organizations, in­ cluding expansion of access to services and enhancement of the efficiency of care.

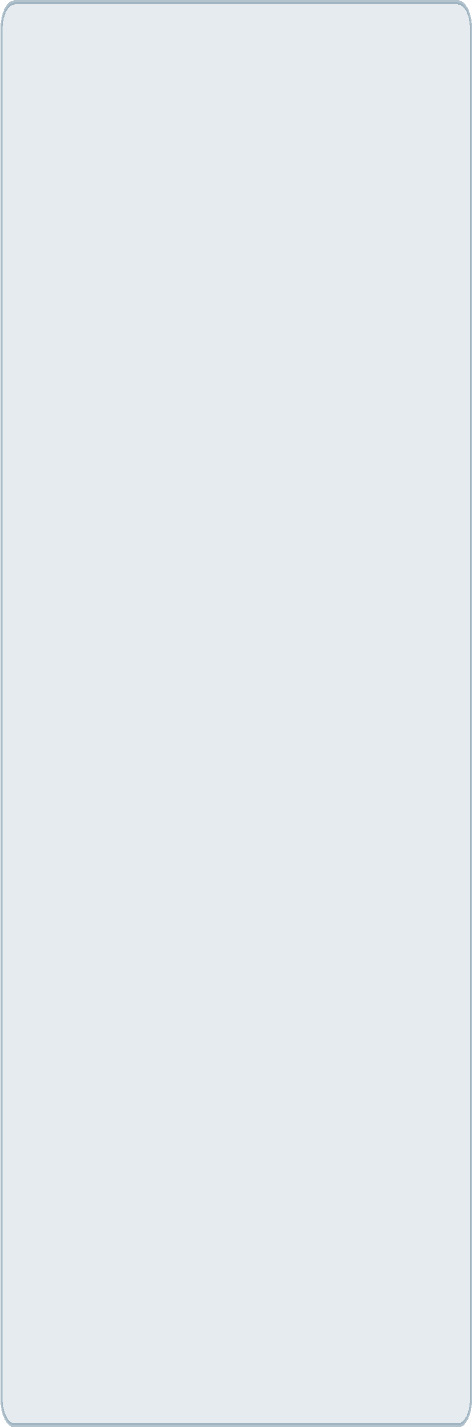
TAC also presents new opportunities for cli­ ents to direct their own care. Technology can provide expanded accessibility for individuals who are isolated from services and support outside of scheduled sessions, offer new ave­ nues for support, and provide opportunities for self-paced intervention. It 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 monitor­ ing systems that provide immediate ratings of clients' perceptions of care are useful in more quickly addressing client concerns (Forman et al., 2007). Medication compliance technolo­ gies 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 coordi­ nate services across providers and organiza­ tions. 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 expecta­ tions for the adolescent and family members. In addition to enhancing direct services, TAC offers new ways to train and supervise the be­ havioral health workforce (Hoge et al., 2007; Institute of Medicine, 2006). Innovations, such as self-paced cognitive-behavioral thera­ py 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 espe­ cially valuable in rural areas, enabling clini­ cians to access expertise that is not otherwise available in their local communities and im­ proving access to supervision in crisis situa­ tions (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 in­ volve 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 intra­ ditional aspects of client-provider interaction, such as building a therapeutic alliance (Shore, Savin, Novins, &Manson, 2006). Further­ more, TAC creates unique ethical and legal concerns that you, as a behavioral health pro­ gram administrator, will need to address (Mallen, Vogel, & Rochlen, 2005). These challenges range from responding to situations



**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.a](http://www.anxietyonline.org.au/default.a) spx) is a comprehensive Internet-based treatment clinic for people with anxiety dis­ orders funded by the Australian Department of Health and Ageing. The site provides in­ formation, assessment, therapist-assisted treatment, and mutual-help programs.
* **Prochange.com**

(http://www.prochange.com) is a set of

on line behavior change programs targeting a range of populations and problems, in­ cluding stress, weight management, domes­ tic violence, depression, smoking cessation, medication compliance, and teens in rela­ tionships. The programs are empirically based and use self-directed approaches as well as coaching.

in which clients pose a danger to themselves or others to implementing systems that ensure the confidentiality and privacy of clinical in­ formation shared through emails or text mes­ sages (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 at­ tempt to implement and finance TAC. Al­ though federal agencies and professional li­ censing 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, signa­ tures of acknowledgment, and geographically bound service jurisdictions (McGinty, Saeed, Simmons, & Yildirim, 2006).

TAC introduces new challenges and opportu­ nities 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 ser­ vices 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 pri­ vacy, 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 plan­ ning for and adopting technology-mediated service delivery. This chapter provides behav­ ioral 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 chal­ lenges 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 inter­ ventions 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 train­ ing of staff members to incorporate TAC into their practice, as well as the provision of ade­ quate supervision for TAC.

The process of considering and adopting technological innovations involves identifying the need or problem to be addressed, assem­ bling a planning team, designing the service delivery process, selecting the technologies that best support service delivery, implement­ ing and continuous monitoring, and maintain­ ing 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 administra­ tors, supervisors, counselors, clients, and tech­ nology experts-should be involved in devel­ oping 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 pro­ mote partnerships with primary healthcare pro­ viders 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 or­ ganization in reaching strategic goals related to staff recruitment or retention, and it can also help address process improvement chal­ lenges. Issues of positioning in the market, competitive advantage, improvements to cus­ tomer service, and adding value for purchasers also drive the establishment of clear goals.

Planning Team

To foster successful planning, involve stake­ holders 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 re­ quired for implementation. Exhibit 2.1-1 out­ lines roles and responsibilities of various stake­ holders 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 ap­ ply to technology-based interventions. In ad­ dition 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 Eng­ lish 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. Inter­ ventions 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 de­ sign principles. Certain groups, such as Afri­ can Americans, Latinos, and young adults, are more likely than older Whites to use mobile devices as their primary source oflnternet ac­ cess, 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 spe­

cific treatment and support (Pollard, Dean, O'Hearn, & Haynes, 2009). It is also im­ portant to consider how much technical sup­ port 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, Almlov, & Cuijpers, 2009). Thus, it is crucial to conduct a review of the strengths and needs of the popu- lation to be served and to include former and potential clients in the planning and imple­ mentation 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 tech­ nologies can be challenging for organizations.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Establish Goals** | **Design or Refine** | **Select Technology** | - |  |
| **and Team** | **Service Delivery** | **and Field Test** | **Monitor** |
|  |  |  | * Review |
|  | * Ensure   availability of team and other design resources. | * Plan for funding   and sustainability.   * Identify performance monitoring and evaluation strategies. |
| strategic plan. | reports and |
| Identify | monitor |
| opportunities | success of |
| and challenges. | implementa- |
| * Convene a | tion and |
|  |
| team. | evaluation. |
| * Assess risk and |  |
| regulatory |  |
| landscape. |  |
| * Develop a |  |
| business plan, |  |
| including |  |
| funding sources |  |
| and budget. |  |
| * Consider an |  |
| evaluation |  |
| component. |  |
|  | * 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. |
|  | * 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. |  |
|  | * 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. |

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

**Implement**

• Ensure availability of needed resources.

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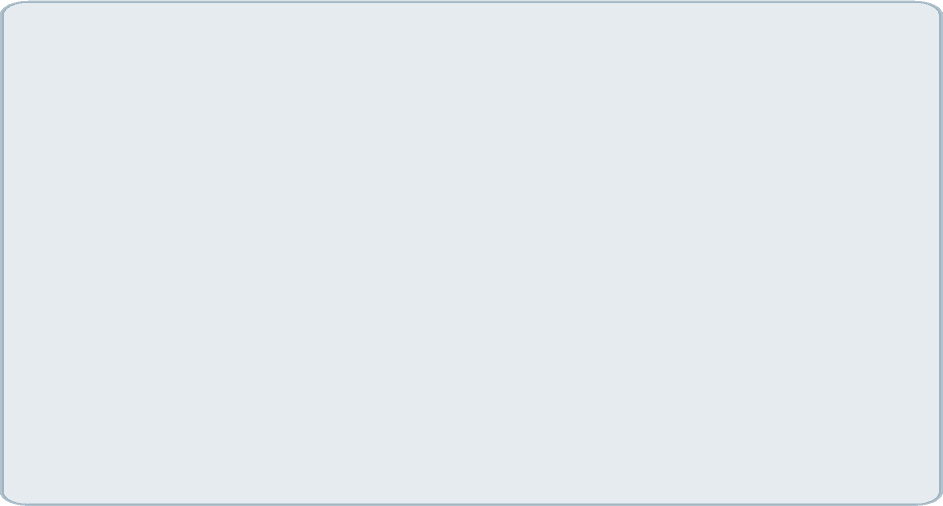
However, research in the area of implementa­ tion offers some useful lessons. Individuals tend to adopt an innovation when they believe there is a need for the innovation, see the ben­ efit in the new practice, and have the skills and confidence to implement the innovation (Meyer, Clarke, Troke, & Friedman, 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. Qeyaraj, Rottman, & Lacity, 2006; Meyer et al., 2012). For exam­ ple, 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. Cli­ nicians and supervisors on the planning team must think carefully about how the introduc­ tion of TAC will change the flow of work for staff members (McGinty et al., 2006); they must also consider how to ensure that efficien­ cies are gained, or at least maintained, as the agency introduces TAC to the workflow. Suc­ cessful 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 Addic­ tion Treatment (NIATx, 2013), a division of the University of Wisconsin's Center for Health Enhancement Systems Studies, devel­ oped 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.



**Implementing a Therapeutic Workplace**

**A** Web-delivered, employment-based interven­ tion for people who inject drugs called the Therapeutic Workplace has reliably produced marked reductions in drug use and under­ scores 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.*

* 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.

The Substance Abuse and Mental Health Ser­ vices Administration's (SAMHSA's) Strength­ ening 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 fac­ tors impeding or facilitating the sustainability and use of TAC, which they were most inter­ ested 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 coun­ seling skills will not necessarily be skilled in delivering **TAC.** Therefore, assessing the tech­ nological 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 compe­ tence and develop self-efficacy with the inter­ vention prior to engaging in service delivery (Andre et al., 2008; Maheu & Gordon, 2000; Midkiff & Wyatt, 2008).

To build competence and confidence, behav­ ioral health service providers must have the opportunity to practice integrating services and technology prior to their first client inter­ actions (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 inde­ pendent activity. Providers must be comforta­ ble 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 ap­ proach 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 ad­ ditional training and support to help staff members who may struggle with the technol­ ogy or experience new concerns as their

competence with the technology advances. Professional associations, such as the Ameri­ can Psychological Association, have begun to develop specific guidelines for the ongoing evaluation of providers' skills and their effec­ tiveness. Exhibit 2.1-2 outlines some of the technological competencies required to im­ plement TAC in behavioral health services.

Clinical Supervision of Technology-Based Care

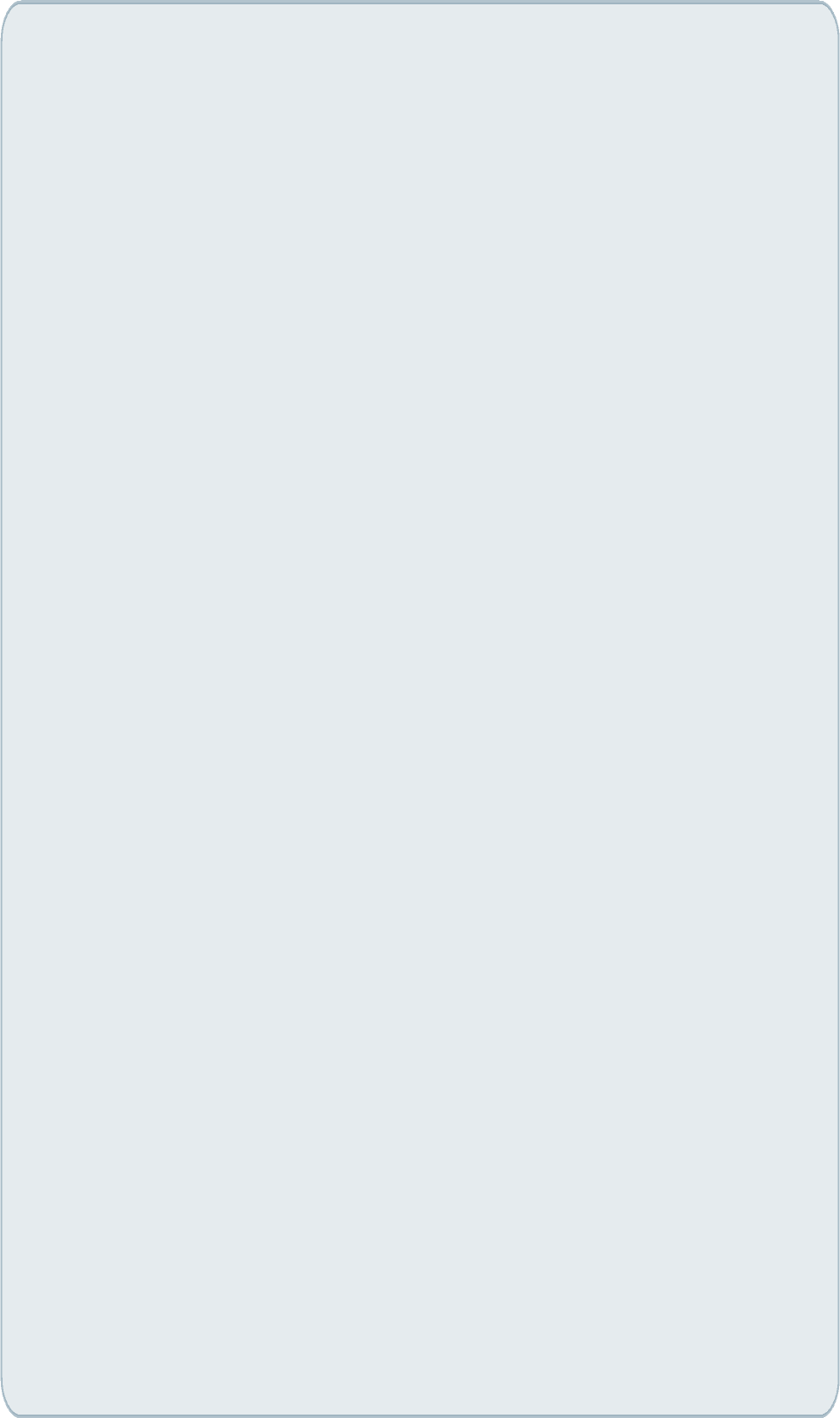
The challenges that emerge in the recruitment and training of clinical supervisors to oversee the delivery of TAC are similar to those that arise in preparing clinicians to deliver tradi­ tional care (Mallen, Vogel, & Rochlen, 2005). Supervisors need to have advanced knowledge of the technology, experience in delivering TAC, well-developed strategies for building relationships using technology, an under­ standing of the common ethical concerns re­ lated 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 tech­ nology to deliver supervision can reduce the stress associated with travel and provide an opportunity for people working in similar spe­ cialties 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,

|  |  |  |
| --- | --- | --- |
| **Knowledge** | **Skills** | **Attitudes** |
| How the technology works | * Access the Internet for | * Willingness to learn |
| Common technology terms | information | and use technology to |
| Ways that technology can en- | * Communicate with clients | support practice |
| hance practice | and peers using technology | * Interest in adoption of |
| Common ethical challenges | * Use technology with ease | new practice techniques |
| related to use of technology | * Provide basic troubleshooting | * Willingness to work |
| Privacy, confidentiality, and in- | * Interact with others effective- | through technology in- |
| formed consent issues with use | ly using technology (e.g., vid- | terruptions and glitches |
| of the technology, including | eo conferencing users under- | * Recognition of the im- |
| the Health Insurance Portability | stand how to frame the | portance of clients and |
| and Accountability Act (HIPAA), | picture and look into the | counselors always un- |
| Title 42, Part 2, of the Code of | camera; text-based commu- | derstanding what the |
| Federal Regulations (CFR), and | nication users can convey | other means when us- |
| other legal requirements | emotion in writing) | ing symbols (e.g., coun- |
| Security risks that clients and | * Minimize privacy, confidential- | selors state how they |
| providers may encounter and | ity, and security risks to clients | interpret clients' use of |
| steps to minimize risks | * Establish and maintain rela- | symbols and ask clients |
| Emoticons and acronyms clients | tionships using technology | to confirm accuracy; |
| may often use and boundary | * Have effective writing skills, | they clarify meanings of |
| concerns surrounding their use | especially regarding emoti- | any symbols they them- |
| in a professional relationship | con and text etiquette when | selves use to avoid |
| Policies on scope of practice, | using text-based communica- | misinterpretation) |
| coordination of care, security, in- | tion in the context of profes- |  |
| formed consent and privacy,  mandatory reporting, handling emergencies, keeping electronic | sional relationships   * Build referral relationships in   the community, including |  |
| records, security, and addressing | emergency referrals |  |
| privacy or security violations |  |  |

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 technol­ ogy 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.



**Exhibit 2.1-2: Technological Competencies Required of Clinical Staff**

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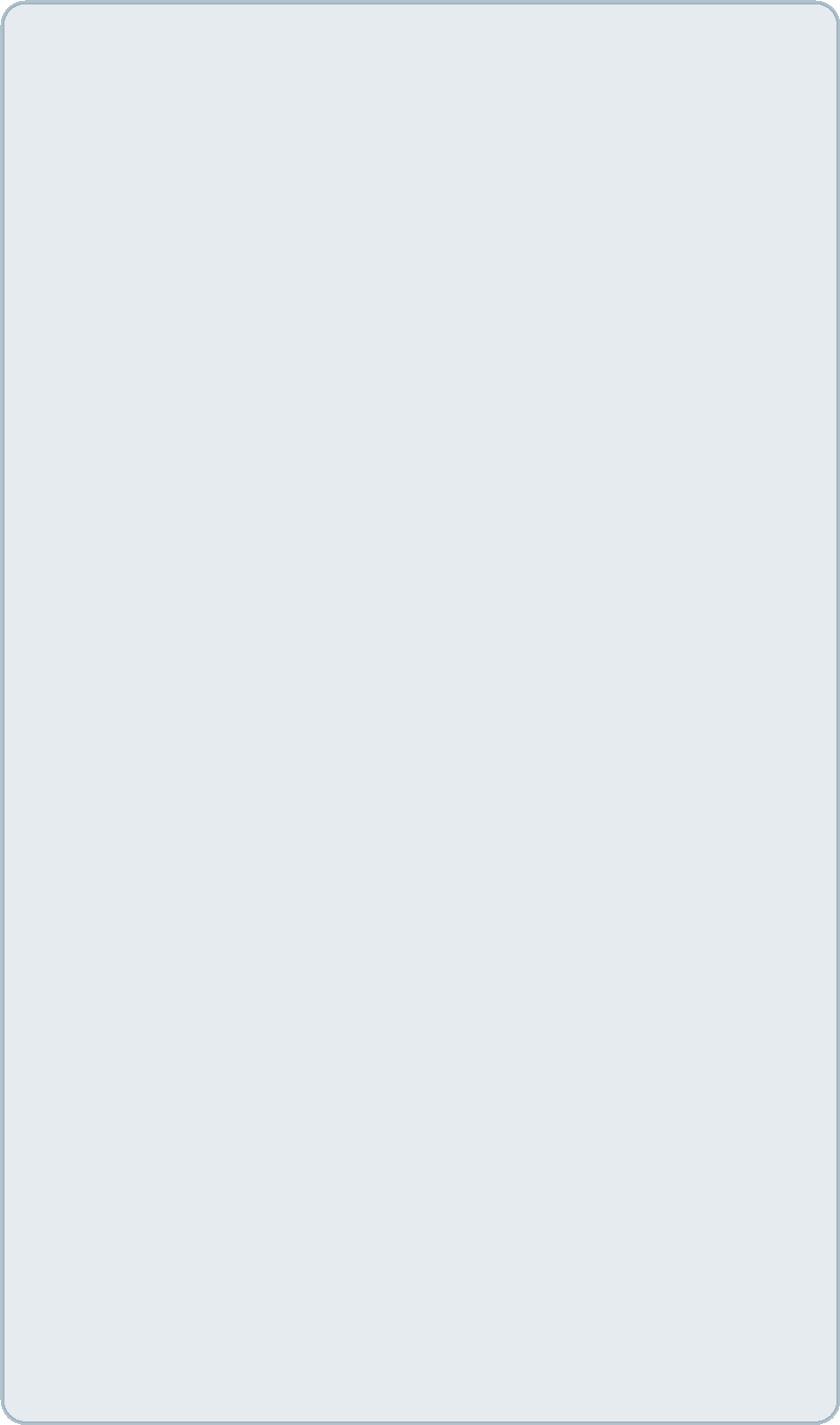
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State licensing regulations may restrict or im­ pose specific requirements on the delivery of supervision using technology. In some cases, it may be useful to supplement technology­ mediated contacts with in-person supervision (Vaccaro & Lambie, 2007). 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 supervi­ sees 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,

especially when using text-based communica­ tion (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 es­ sential 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 ex­ change of clinical information across partici­ pants, supervisors and clinicians must be well



**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 ses­ sions 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.

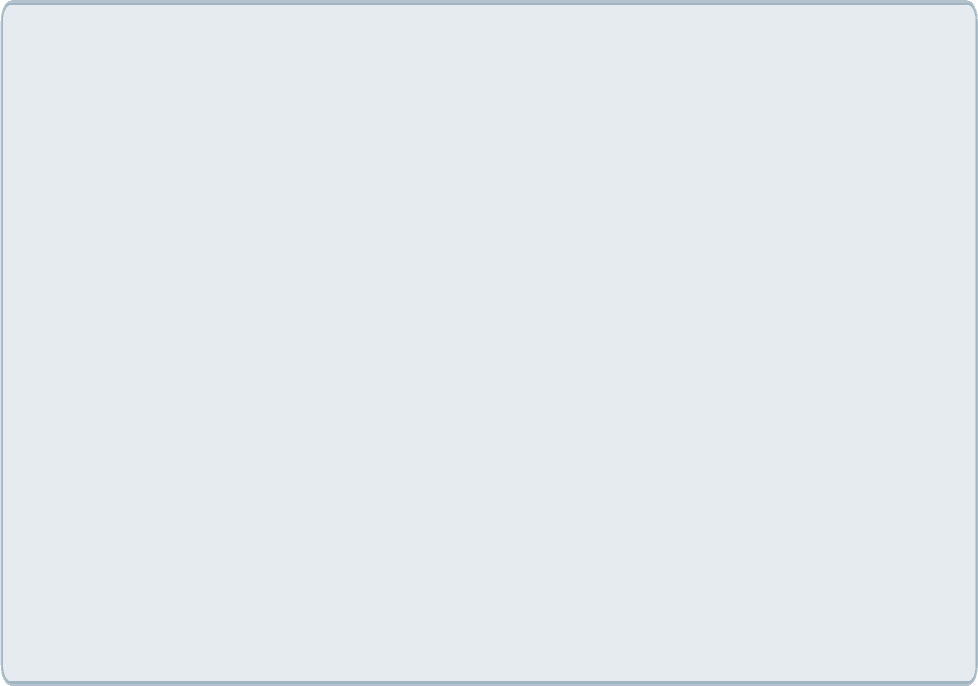
**Use of store-and-forward technologies for recording sessions to be used in supervision:** Store-and-forward products are available that allow the clinician to record live sessions with a remotely connected client, tag the recording prior to or during the supervisor session, and then immediately access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

versed in strategies that minimize risks to cli­ ents associated with data integrity, data securi­ ty, privacy, and confidentiality.

As with any exchange of clinical information, your agency should have a policy to inform cli­ ents of the ways in which the supervision pro­ cess 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 compe­ tencies 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 effec­ tive adoption of new interventions by putting a system in place to monitor and respond to implementation successes and challenges. Or­ ganizational 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

staff perceptions of the challenges and suc­ cesses of implementation, compliance with the key ingredients of the intervention, and de­ mographic characteristics of the client popula­ tion 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 prac­ tice. A system for refining or enhancing TAC is critical to ongoing success.

Disaster Planning

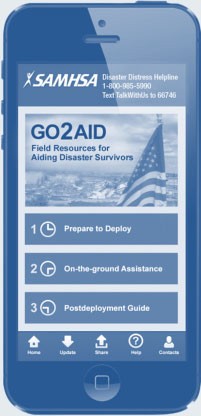
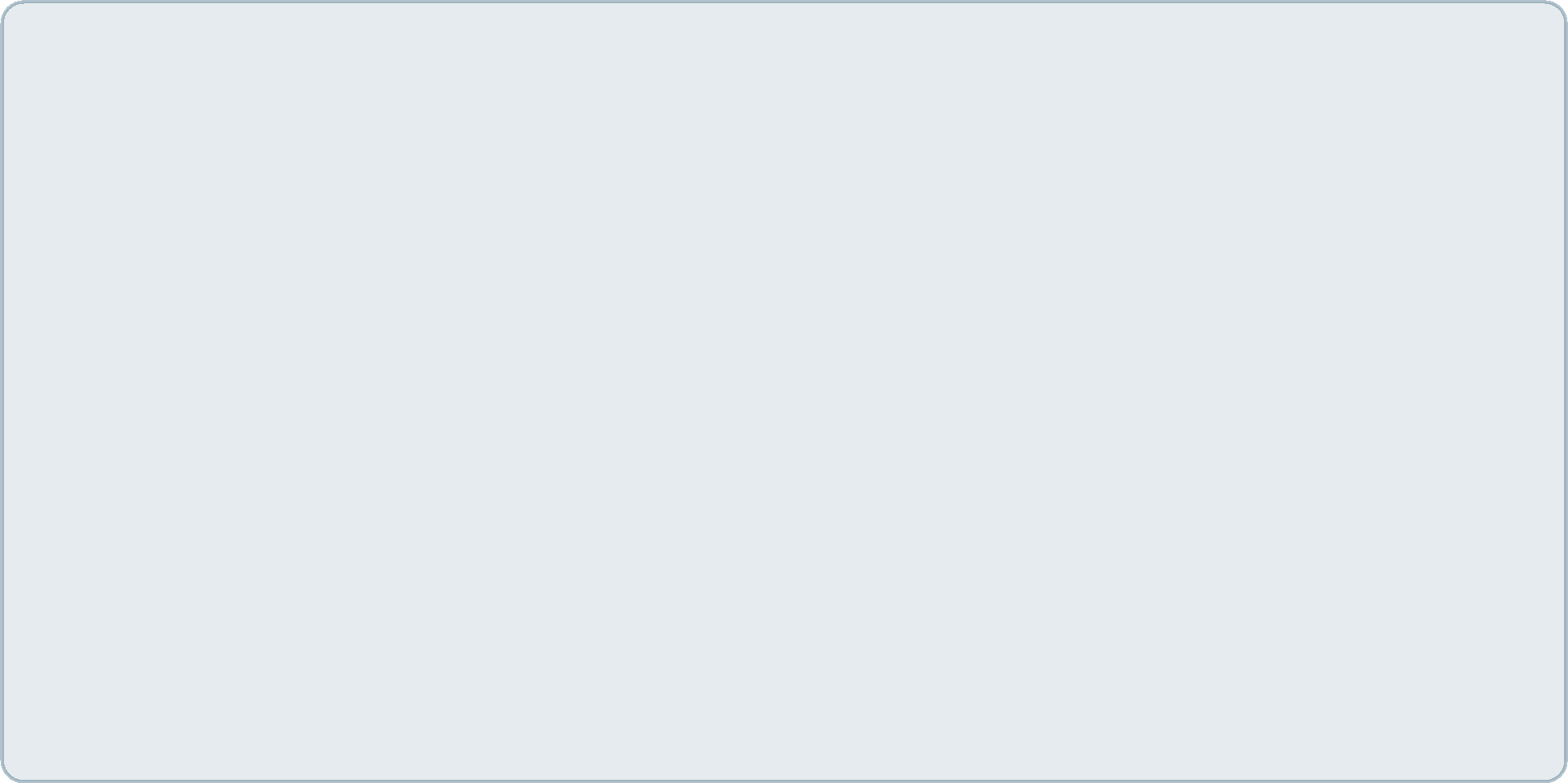
As essential community providers, many be­ havioral health organizations are required to

**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

have disaster plans. In addition to resources such as SAMHSA's Disaster Technical Assis­ tance Center (<http://www.samhsa.gov/> **DTAC/),** organizations may consider the ways in which technology can assist in responding effectively to disasters. Technology has the po­ tential to be useful in addressing certain chal­ lenges 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 messag­ ing, cell phones, and reverse 911 calling to dis­ seminate information and dispatch providers.

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



**G02AID**

In a disaster, it's essential that behavioral health responders have the re­ sources they need, when and where they need them. SAMHSA's G02AID­ 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 chal­ lenges of travel (Yellowlees, Burke, Marks, Hilty, & Shore, 2008). Some states offer reci­ procity 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 per­ sonnel 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).

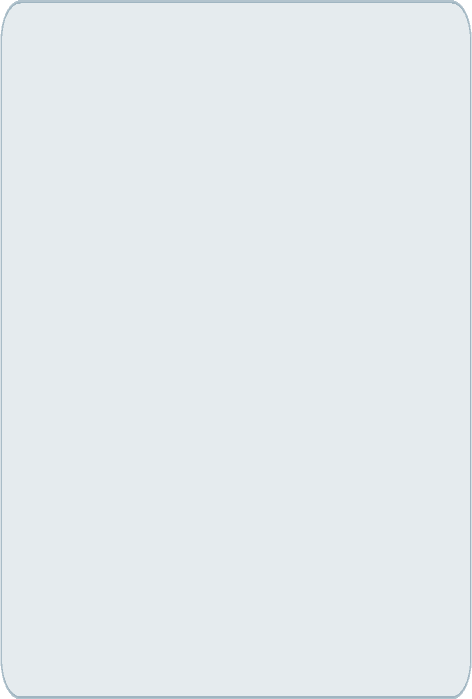
When considering how technology can be used in a disaster, think about how internal organi­ zational communication as well as communica­ tion with other critical providers or responders might be affected. For example, having charged cell phones programmed with critical contacts may be vital to effective 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 disas­ ter 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 infor­ mation 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.

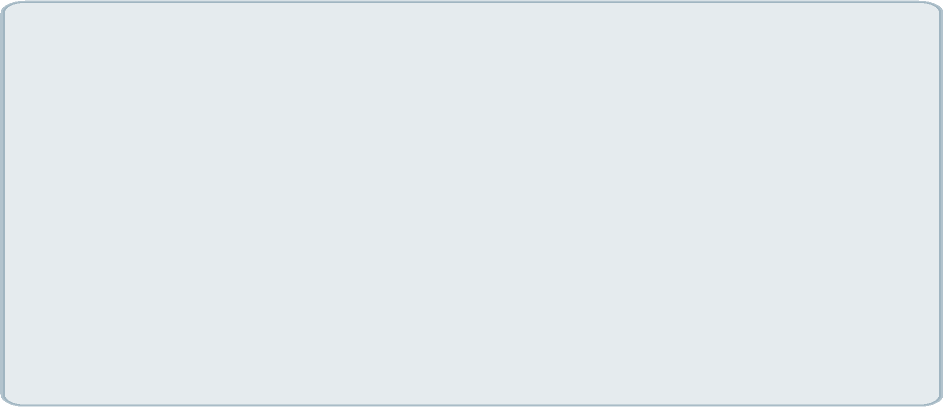
##### Data Security

HIP AA dictates the privacy and security safe­ guards required for the protection of protected health information (PHI). The security as­ pects of these rules, which address how health data are accessed, transmitted, and stored (U.S. Department of Health and Human Ser­ vices [HHS], 2006; HHS, Office of the Sec­ retary, 2013), must be considered when im­ plementing 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, organiza­ tions are advised to have policies that address lost and stolen passwords, automatic session logouts for unattended work stations, and vi­ rus 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**

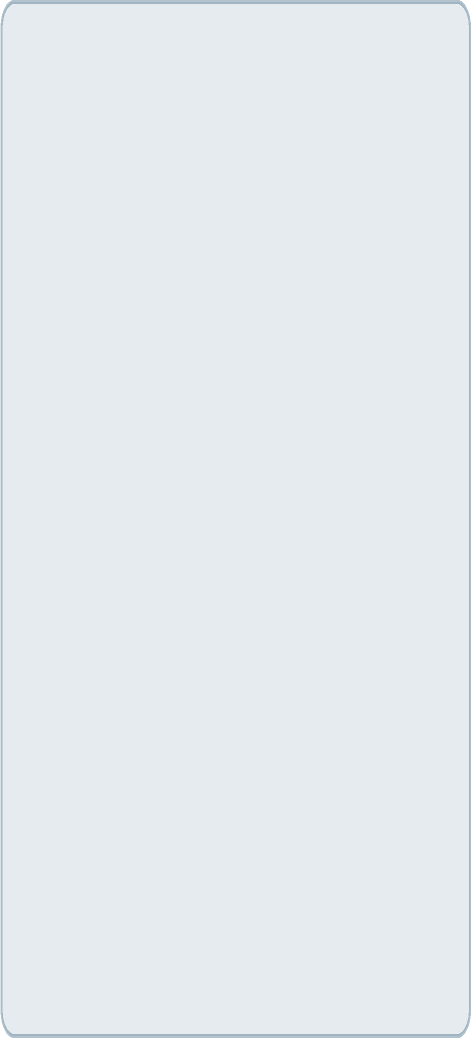
* HHS HIPAA Security Guidance (<http://www.hhs.gov/ocr/privacy/hipaa/ad> min istrative/secu rityru Ie/ remote use.pdf)
* Guide to Storage Encryption Technologies for End User Devices: Recommendations of the National Institute of Standards and Technology

([http://csrc.n ist.gov/](http://csrc.nist.gov/) pub I ications/ n istpu bs/8 00-111/SPS00-111.pdf)

* National Institute of Standards and Tech­ nology Guidelines on Electronic Mail Secu­ rity (<http://csrc.nist.gov/publications/> nistpubs/800-45-version2/SP800-45v2.pdf)

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

HIP AA 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 net­ works and Web-based email are necessary (HHS, 2006). Data storage security as defined by **HIP**AA 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 ini­ tially and on an ongoing basis.



**Resources on Video and Web Conferencing**

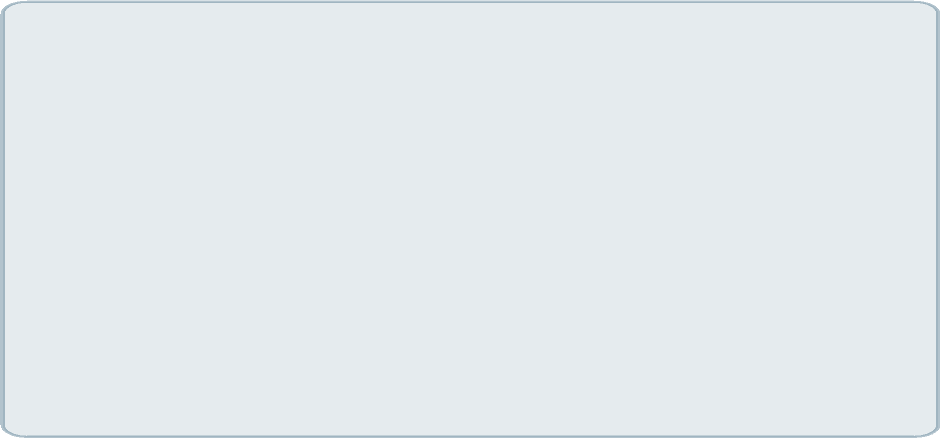
* American Telemedicine Association Tele­ medicine Standards & Guidelines: http://www.a me rica ntelemed.o rg/ resource s/standards/ata-standards-guidelines
* National Center for Telehealth & Technol­ ogy T2 Telehealth Programs: [http://t2health.org/programs­](http://t2health.org/programs) telehealth.html
* Health Resources and Services Administra­ tion (HRSA) Telehealth: <http://www.hrsa.gov/ru>ra I hea Ith/a bout/tele health/
* Telehealth Resource Centers: http://www.telehea Ith resou rcecenter.org
* Addiction Technology Transfer Center Network: [http://www.nattc.org](http://www.nattc.org/)

These are just a few privacy and security issues to consider. The Office of the National Coor­ dinator for Health Information Technology provides more comprehensive guidance and resources on compliance with HIP AA when implementing health information technology

solutions ([http://www.healthit.gov/providers­](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 behavior­ al health center to access services that are not available in their community. This model has the advantage of averting some of the techno­ logical, privacy, and security complications associated with clients accessing services in their homes. The implementation planning process should inform assessment of the tech­ nological 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 particu­ larly important for video conferencing. If us­ ing 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



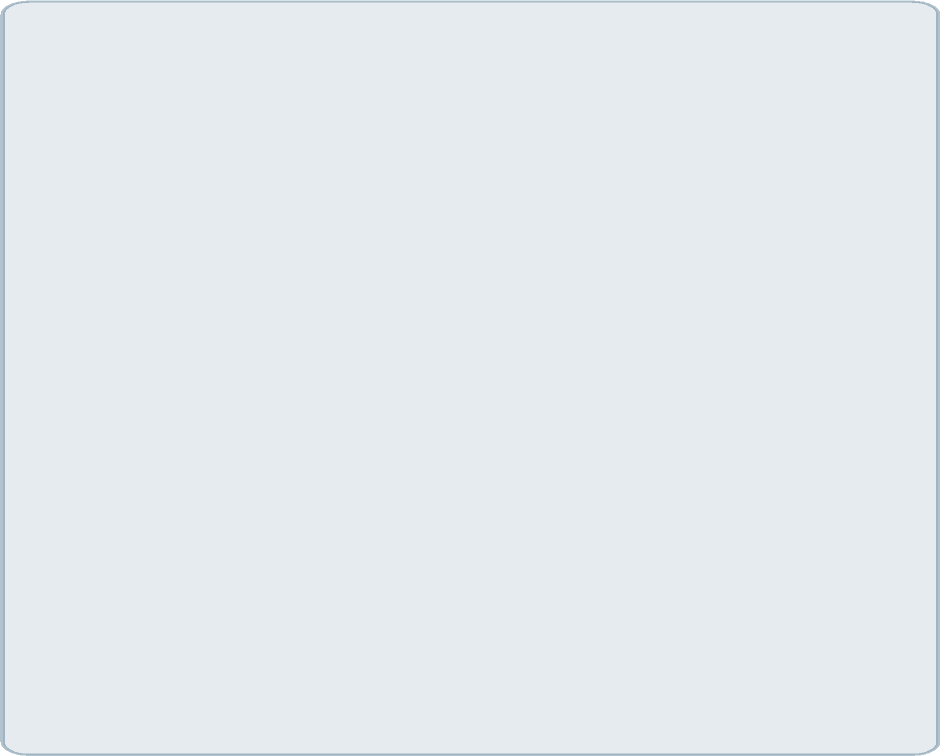
**Video Conferencing During National Depression Screening Day**

Video conferencing has increased awareness of issues and resources related to depression dur­ ing National Depression Screening Day, an an­ nual event run by Screening for Mental Health, Inc. (SMH) since 1991 (SMH, 2012). In one ex­ ample, a lecture was broadcast to regional vid­ eo 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 de­ pression, 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 confer­ encing. Various videophone and video confer­ encing 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 gener­ ally pose few challenges. However, mobile phone use for Web conferencing raises some privacy and security concerns. See the "Tele­ phone/Audio Conferencing" section for addi­ tional information.



**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 complet­ ing an intensive outpatient program for sub­ stance 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 en­ rollment 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 re­ covery, but as clients maintain recovery and build support, the frequency reduces to monthly.

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 (20096) addresses physical location requirements, in­ cluding visual and audio privacy, room lighting, backdrops, and ergonomic considerations. Or­ ganizations 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

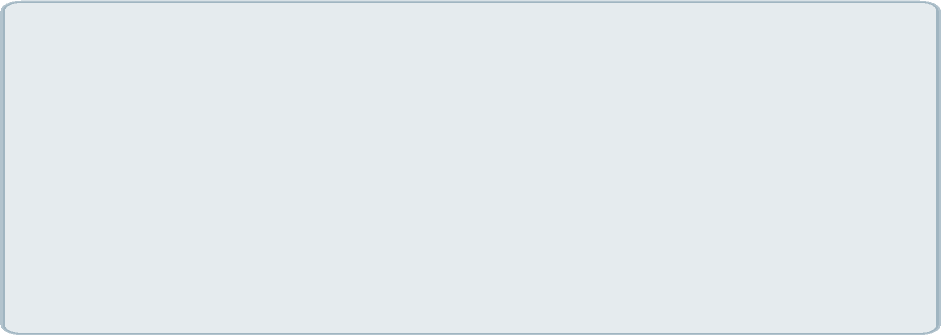
approach to troubleshooting technology issues as implementation proceeds.

**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 us­ ers 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 communi­ cation over mobile phones must be encrypted to minimize the risk of third-party intercep­ tion; 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 sci­ entific 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). Be­ cause email is not a secure form of communi­ cation unless it is encrypted, organizations and providers must implement safeguards to ensure privacy of communications. These precautions include having policies to prevent uninten­ tional disclosure to someone other than the client, such as confirming an email address, and fully exploring risks related to someone



**Therapeutic Email**

A program of structured therapeutic emails sent daily in conjunction with electronic sup­ port groups, abstinence monitoring, and op­ tional individual counseling sessions has been used as an adjunct to treatment for women who are pregnant and use drugs. Clients re­ ported 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).

other than the client having access to his or her email account. Furthermore, all email ex­ changes of treatment-related information must use email encryption to meet HIP AA Security Rule requirements (HHS, 2006).

Various single-user and organizational solu­ tions for email encryption are available and are generally quite affordable. The National Institute of Standards and Technology Guide­ lines on Electronic Mail Security provide de­ tailed information on email security and

encryption (http:/ *I*csrc.nist.gov/

publications/ nistpubs/800-45- version2/SP800-45v2.pdf).

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 devel­ op policies for your behavioral health program on the storage of these communications. Re­ search 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 charac­ teristics of the clients who are likely to benefit from the intervention. Consider implementing structured clinical protocols and procedures to

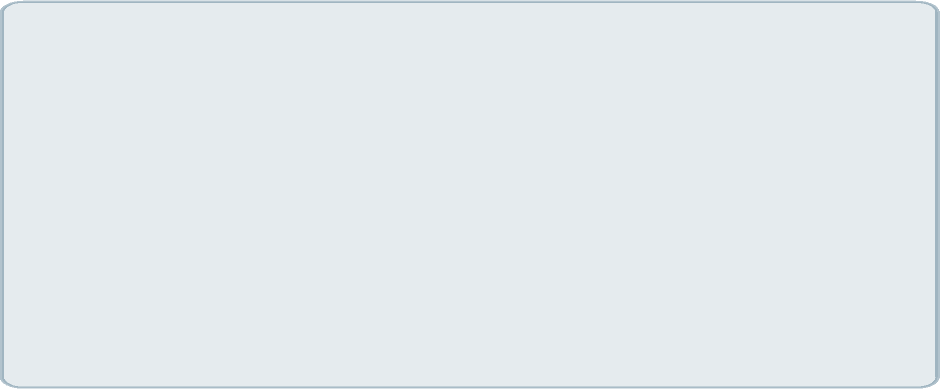
cover the full range of ethical and legal issues discussed in this Treatment Improvement Pro­ tocol (TIP) and heed current research as you consider incorporating email into your pro­ gram's delivery of behavioral health services.

Text Messaging

Text messaging can effectively provide brief interventions or resources to clients on their mobile phones. Text messaging-based inter­ ventions may include reminders for medica­ tions 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 priva­ cy 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 identi­ fies 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 notall-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



**Text4Baby**

For women who are pregnant or in their first postpartum year, the Text4Baby program pro­ vides 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).

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. Ask­ ing clients to confirm receipt of text messages and establishing measures such as auditing and remote wiping can protect sensitive in­ formation to a degree, but providers should generally avoid using text messaging for com­ munication when privacy and security are of significant concern.

**Web-Based Text Communication** Real-time instant messaging can serve as an alternative to asynchronous email or text mes­ sage exchanges. Providers and clients can download chat programs, which are often free, quickly and easily from vendors; these pro­ grams 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 pri­ vacy 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 net­ working sites such as Twitter, Facebook, or Linkedln 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 communica­ tions posted on such sites are public.

Avoiding the use of social networking sites can become particularly challenging when dis­ gruntled 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 appli­ cations are typically hosted by third-party ven­ dors. 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.

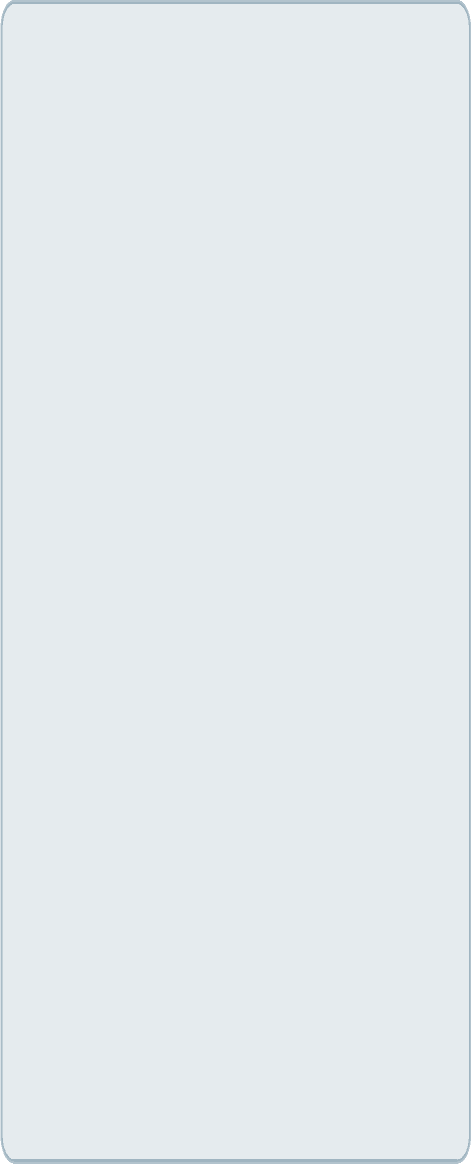
Many self-directed therapeutic tools target prevention and treatment of mental and sub­ stance use disorders. For example, college campuses often purchase licenses so that their students can access substance use or mental health risk factor reduction programs delivered over the Internet. Another example 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 screen­ ing, 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 ad­ dress password protection, automatic logouts, firewalls, audit trails, encryption, and authen­ tication. 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 communica­ tion with clients, but you must carefully exam­ ine the reputations of such services before choosing one.

Self-directed therapeutic tools can be attrac­ tive to clients and providers because they re­ quire little investment in infrastructure other



**Programs To Reduce Health Risks**

MyStudentBody (http://www.mystudentbody.com), Alcohol Edu (<http://www.everfi.com/>a I coholed u-for-

col I ege), 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 (as­ suming an Internet connection) whenever and wherever the user wishes. Although some of these tools allow for clients to share infor­ mation with their behavioral health service providers, they generally operate outside of the formal treatment process.

Organizational Web Sites

Organizational Web sites can provide infor­ mation about behavioral health service systems in a way that can motivate people to seek ser­ vices (Maheu, Pulier, Wilhelm, McMenamin, & Brown-Connolly, 2004). More active ap­ proaches that include discussion groups,

built-in chat or email features, and other op­ portunities for digital interaction with staff members are more likely to engage people into service delivery. That said, organization­ al 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 op­ portunities associated with embedding email and discussion group features into Web sites. These more active approaches to Web site de­ sign 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 is­ sues, including the hardware, software, tech­ nological 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 facil­ itate TAC can be costly (McGinty et al., 2006). It is critical that you have a clear un­ derstanding of the costs and a plan to finance the development of the infrastructure neces­

sary 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 infrastruc­ ture, and cost considerations dictate which options you select. In planning to implement TAC, you will benefit from careful investiga­ tion of the following cost categories.

Infrastructure development cost considera­ tions 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 materi­

als, 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 troubleshoot­ ing services.
  + Ongoing staff training for new staff re­ cruits 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 devel­ oped and are available through the Centers for Medicare and Medicaid Services (CMS). Currently, Medicare authorizes reimburse­ ments for telehealth services delivered by des­ ignated professionals in underserved areas or as demonstration projects (HHS, CMS, 2012, 2013). Some state plans dictate Medicaid re­ imbursement for telehealth. Some private payers also reimburse for video conferencing, and others are piloting video, text, and tele­ phone 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 reimbu s ­ ment policies, providers may have the ability to recapture their costs in other ways. For ex­ ample, the use of technology-mediated inter­ ventions may be incorporated as a value­ added service that assists providers in meet­ ing other contractual obligations, such as im­ proving care coordination or reducing

rehospitalization; the costs may thus be re­ covered 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 wer.e clinical psychologists, and 2 percent were li­ censed social workers (although the nonpsy­ chiatric 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 reim­ bursement and decreasing regulatory burden between 2006 and 2009, the barriers to im­ plementation described throughout this TIP may continue to restrain reimbursement of telemental health services provided to clients who are covered by Medicare or Medicaid.

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### Vendor and Consultant Selection Considerations

Selecting a vendor to facilitate TAC is a criti­ cally important endeavor. Security, privacy, confidentiality, and regulatory requirements must be addressed in addition to cost, usabil­ ity, 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 par­ ticular technology solution to assist in the de­ velopment 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 tech­ nology expertise. Nonetheless, it is important to involve a broad range of stakeholders, in­ cluding 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 demon­ strations that allow potential users to operate the technology in situations that mirror antic­ ipated live conditions as closely as possible.

Much guidance is available in selecting tech­ nology vendors and experts. Factors to consid­ er 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 pri­ or to entering into binding agreements or shar­ ing confidential client information.

When reviewing vendor and consultant cre­ dentials, consider:

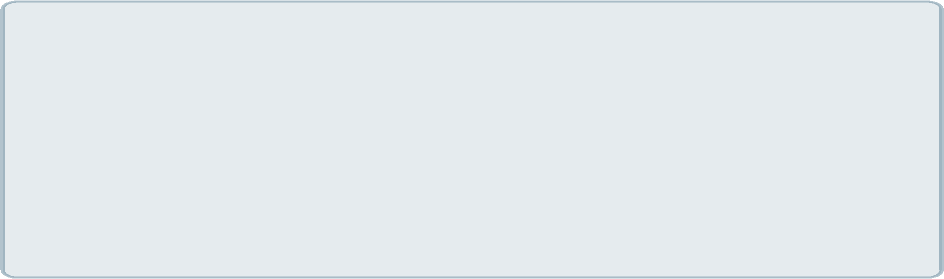
* Demonstrated experience in implementa­ tion of similar applications or services (e.g., whether the vendor has developed or implemented similar applications in other behavioral health settings).
* Stability of the vendor's company or agency.
* Availability of training and support.
* References from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

#### 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 exam­ ples of technology-assisted services cited in this document originate outside the United States, and given that the regulatory environ­ ment surrounding the delivery of these ser­ vices in the United States is rapidly changing, administrators should remain diligent in mon­ itoring the regulatory and legal environment within their state. You should seek legal ad­ vice specific to state laws and regulations ap­ plicable 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 HIP AA are dis­ cussed earlier in this **TIP.** As for how much of the content in digital or audio exchanges be­ tween 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 in­ formation within client records. Although storing more information about clinical inter­ actions may improve continuity of care, it also creates storage space challenges, and the in­ formation may be subject to subpoena. The sheer volume of information text-based com­ munications generate, as well as added chal­ lenges associated with video storage, suggest



**Vendor Selection Resources**

* Telehealth Technology Assessment Center: [http://telehea](http://telehea/) lthtech noI ogy.org/tool kits
* The Telemental Health Guide: [http://www.tmhguide.org](http://www.tmhguide.org/)
* Agency for Healthcare Research and Quali­ ty Health Information Technology Tools and Resources: <http://healthit.ahrq.gov/health>­ it-tools-and-resources

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., misre­ porting a weight that a physician then relies on for medication dosage, understating or over­ stating symptoms). The use of crosschecking software and other internal procedures to en­ sure 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 sys­ tems 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 super­ visors can enhance care and promote technol­ ogy-mediated supervision. (See also http:/*I* [www.healthit.gov/providers-professionals/](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 ac­ cess 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 HIP AA 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 adminis­ trative and technological protections meant to ensure that **PHI** is not disclosed to unauthor­ ized individuals. Privacy issues are equally important and have unique implications in technology-delivered interventions.

Earlier sections have identified the risks asso­ ciated 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 ap­ plication 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. Medi­ cation levels can also be monitored and the re­ sulting information sent back to the clinician. These applications can be helpful tools for cli­ ents and clinicians; however, just as clinicians are responsible for documenting their rationale for recording sessions, clients must sign a writ­ ten informed consent document outlining the rationale, risks, and benefits along with the protection, storage, and disposal of any identi­ fying information retained by the provider.

Informed Consent

In addition to the usual elements of an in­ formed consent to participate in services, a number of considerations emerge when deliv­ ering care through technology. As with all in­ formed 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 un­ familiar to some clients. Thus, TAC imple­ mentation teams must be diligent about en­ suring that clients are fully informed of risks and benefits in language that they can under­ stand. This includes a full disclosure of the risk oflosing real-time control of personal da­ ta through systems that intrude into clients' homes or personal environments for the pur­ pose 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 interven­ tion 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 pri­ marily engage in services remotely. Clients can provide electronic signatures or select a box on a Web page to acknowledge reading and un­ derstanding the information; however, there are concerns in ensuring that clients fully un­ derstand and agree to risks and benefits in this manner. Some programs use the low-tech op­ tion of having the client sign and fax the form to the provider (Midkiff & Wyatt, 2008); oth­ ers require telephone or in-person intake ses­ sions 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 pro­ grams 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 in­ ception of remote care (Abbott et al., 2008; Midkiff & Wyatt, 2008). In remote areas, vid­ eo 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 guard­ ian consent (Maheu et al., 2004).

The process of obtaining informed consent from clients should include their provision of emergency contact information and their re­ ceipt 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 cli­ ents' 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 emer­ gency 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 over­ heard 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 in­ formation about what they can do to protect themselves from privacy breaches. Advice may include not sharing passwords or email ac­ counts with family members, logging off Web sites after each session (especially for clients in group living situations), and using virus pro­ tection software. Introducing clients to the Internet or mobile technology creates poten­ tial 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 pro­ tection; 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 popula- tions-delivered in various ways.

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Explain how fees for technology-based inter­ ventions are charged and how payments for TAC are made (Barnett, 2011; Maheu et al., 2004). This may require explaining insurance reimbursement and limitations of reimburse­ ment, which types of interactions are billed, and the logistics of payment. If clients wish to use credit cards, issues can arise regarding re­ curring payments, the name listed on the invoice, and where receipts may be sent. De­ pending on the type of technology used and the intervention's intensity, advise clients about

how technology failures will be handled, in­ cluding backup plans for clinical intervention and plans for handling technological problems (Mallen, Vogel, Rochlen, &Day, 2005).

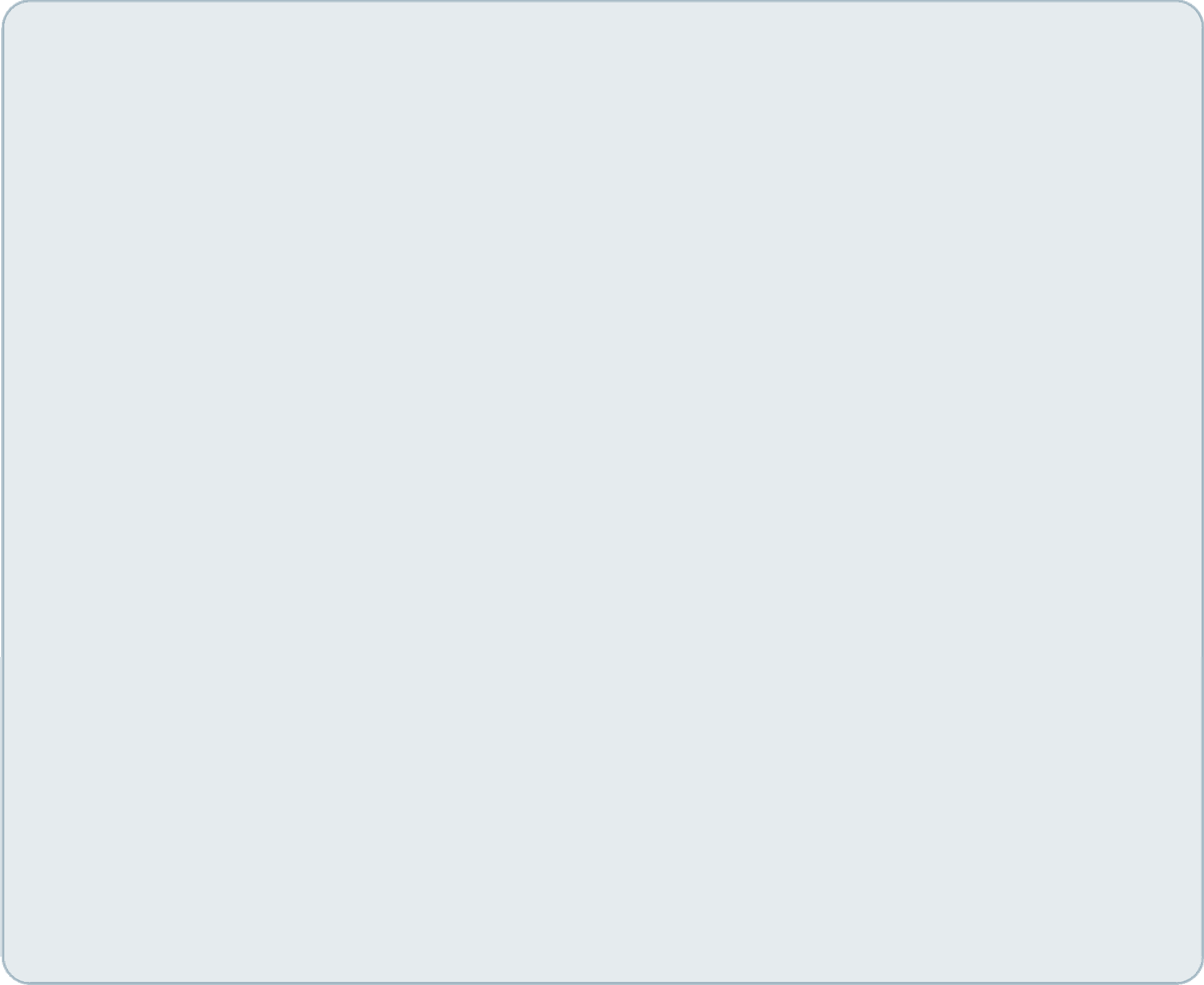
**Scope of Practice, Boundaries of Competence, and Credentialing** In any setting, a behavioral health service

agency plays a role in ensuring that its counse­

lors, supervisors, and other clinical staff pro­ vide 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 ser­ vice in a specific jurisdiction, but also demands that counselors develop new TAC-specific competencies. Organizational TAC compe­ tencies 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 moderat­ ed forums and ensuring that the scope and

role of the staff members responsible for mod­ erating it are clear (Midkiff & Wyatt, 2008). Another example would be a client's potential inability to distinguish easily between a li­ censed professional's email and that of a sup­ port person who is responsible for logistical arrangements; you may wish to establish a policy requiring staff members to use full sig­ natures that clarify who is sending the mes­ sage, 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 organiza­ tions 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 ac­ knowledgment 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 tele­ phone 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 com­ mitment process and the available emergency mental and substance use disorder resources; in addi­ tion 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 situa­ tion (Shore et al., 2007).

You may wish to institute procedures that document the circumstances in which providers can ter­ minate 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 con­ tinuing services with another reputable provider.

Introducing TAC to rural and frontier areas has raised some concerns about the handling of emergen­ cies 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 dis­ closures 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 identify­ ing situations in which the use of technology may be counterproductive or dangerous and enact policies for handling these situations, in­ cluding when and how services should be dis­ continued (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 sub­ stance 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 tech­ nology for service delivery; fewer than half had implemented regulations. Of the 14 states with regulations, *5* required telehealth provid­ ers to meet the same standards required for in­

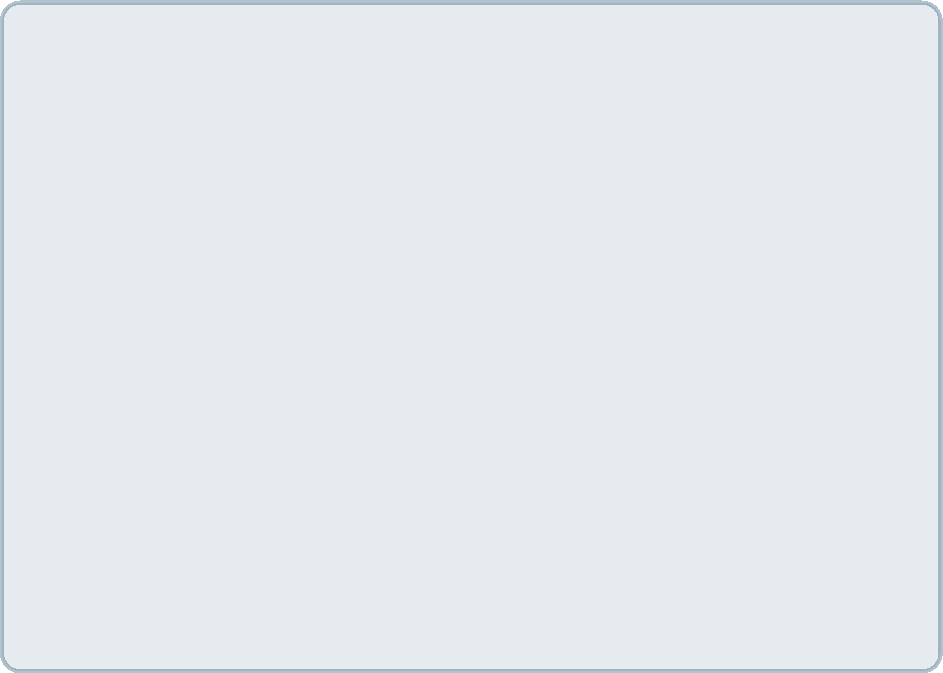
person services, 3 required providers to have formalized protocols, 2 required provider certification, and 2 modified their require­ ments from the standards for in-person ser­ vices (NASADAD, 2009).

A 2010 survey of state regulatory boards re­ sponsible 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 spe­ cialty versus another mode of counseling or supervisory activity. States tended to limit TAC to special circumstances, such as geo­ graphic isolation, and required additional dis­ closures of the risks and benefits of TAC ei­ ther by incorporating the information into existing consent processes or by using addi­ tional consent forms. Most states required Ii­ censure in all states where TAC was delivered, but few states required specialized training.

Telemental health services using two-way au­ dio and video transmissions are addressed by The Joint Commission, reimbursable under Medicaid in many states, and reimbursable by Medicare in rural areas (American Telemedi­ cine Association, 2009a; California Telemed­ icine & 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 T elemedicine Association (2009b). These guidelines cover clinical specifications, such as ethics, emergen­ cies, 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 profes­ sional 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



**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/Rur> alHealthlTtoolbox/index.html)
* HHS's Explanation of Health Information Privacy (<http://www.hhs.gov/ocr/privacy/)>

TAC and must also consent to the transmis­ sion 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 profes­ sional 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 supervi­ sion (Maheu & Gordon, 2000; Midkiff & Wyatt, 2008).

The U.S. Food and Drug Administration (FDA) is developing regulations requiring cer­ tain tools and mobile applications to be ap­ proved as medical devices. The FDA deems certain devices to be low risk; these can be used without FDA approval. See the "Confi­ dentiality, Privacy, and Security" section in Part 1, Chapter 1, for a summary of FDA de­ velopments 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 Technol­ ogy (http://www.healthit.gov).

**Part 2, Chapter 2**

### Introduction



**IN THIS CHAPTER**

* Introduction
* Tools for Clinicians
* Staff Recruitment and Supervision
* Sample Telehealth Policies

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 giv­ en 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 bar­ riers, 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 pre­ sents challenges for counselors and clients. Exhibit 2.2-2 shows how a counselor might phrase questions to elicit particular

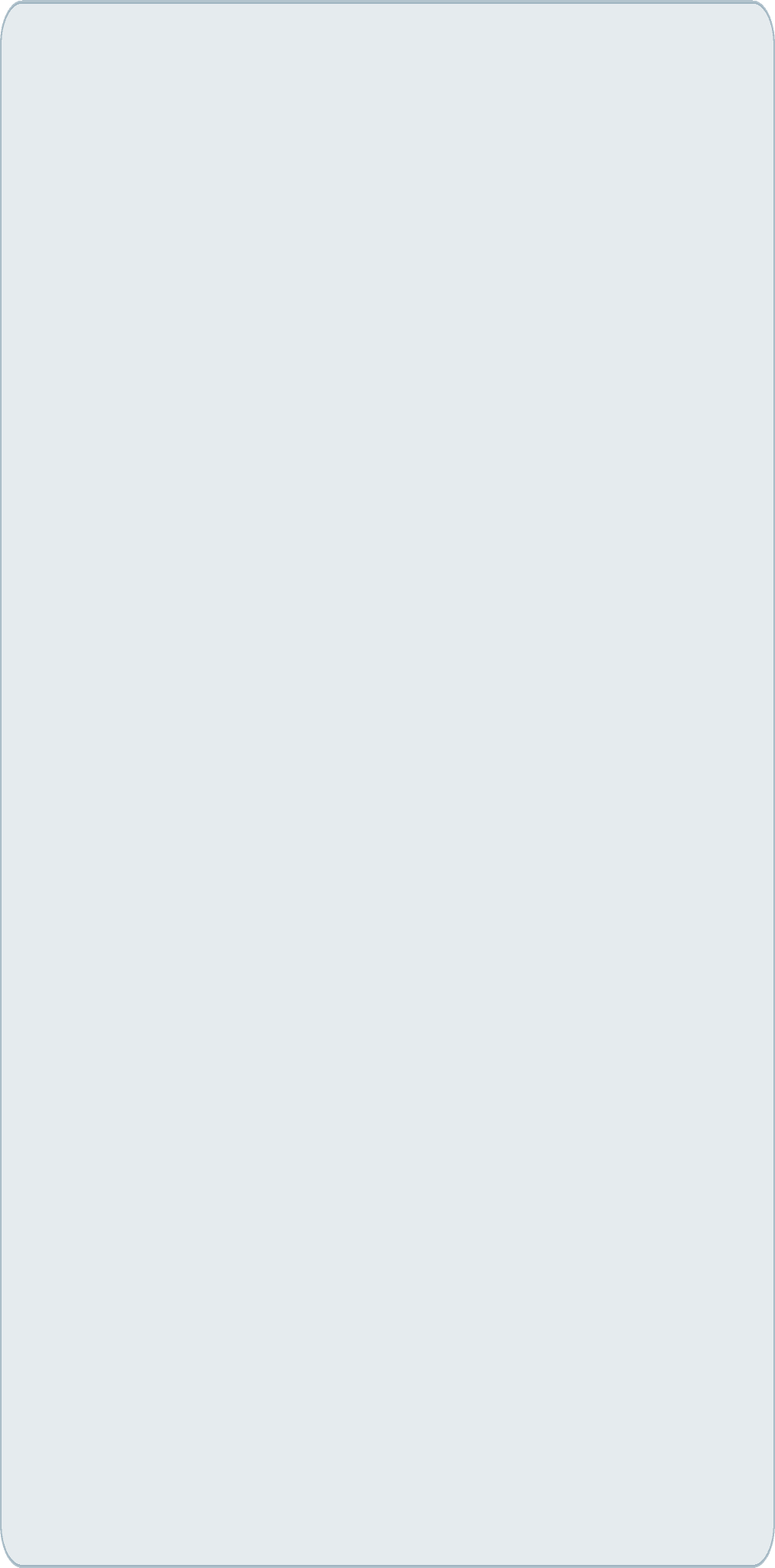
**Exhibit 2.2-1: Glossary of Common Technology Terms**

|  |  |
| --- | --- |
| 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 com- munication 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 experi- enced 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 pass- word, 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 in- formation 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 messag- ing (usually involving just two people). |
| Desktop | The first display you see on a computer after the startup is completed. It is of- ten 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 lap- top 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.)*

|  |  |
| --- | --- |
| 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 In­ ternet, display photos, and play videos. |
| Social media or networking | Web sites (e.g., Facebook, Google+, Linkedln) 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 behav­ ioral 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 in­ clude voice, video, and data. |
| Telehealth | Use of electronic information and telecommunications to support long­ distance clinical healthcare, health-related client and professional educa­ tion, 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 ofresearch (Simon et al., 2011) re­ lated to online text messages in a trial of de­ pression treatment follow-up, see Part 1, Chapter 2, as well as the online-only literature review in Part 3 of this Treatment Improve­ ment Protocol.



**Exhibit 2.2-1: Glossary of Common Technology Terms {continued)**

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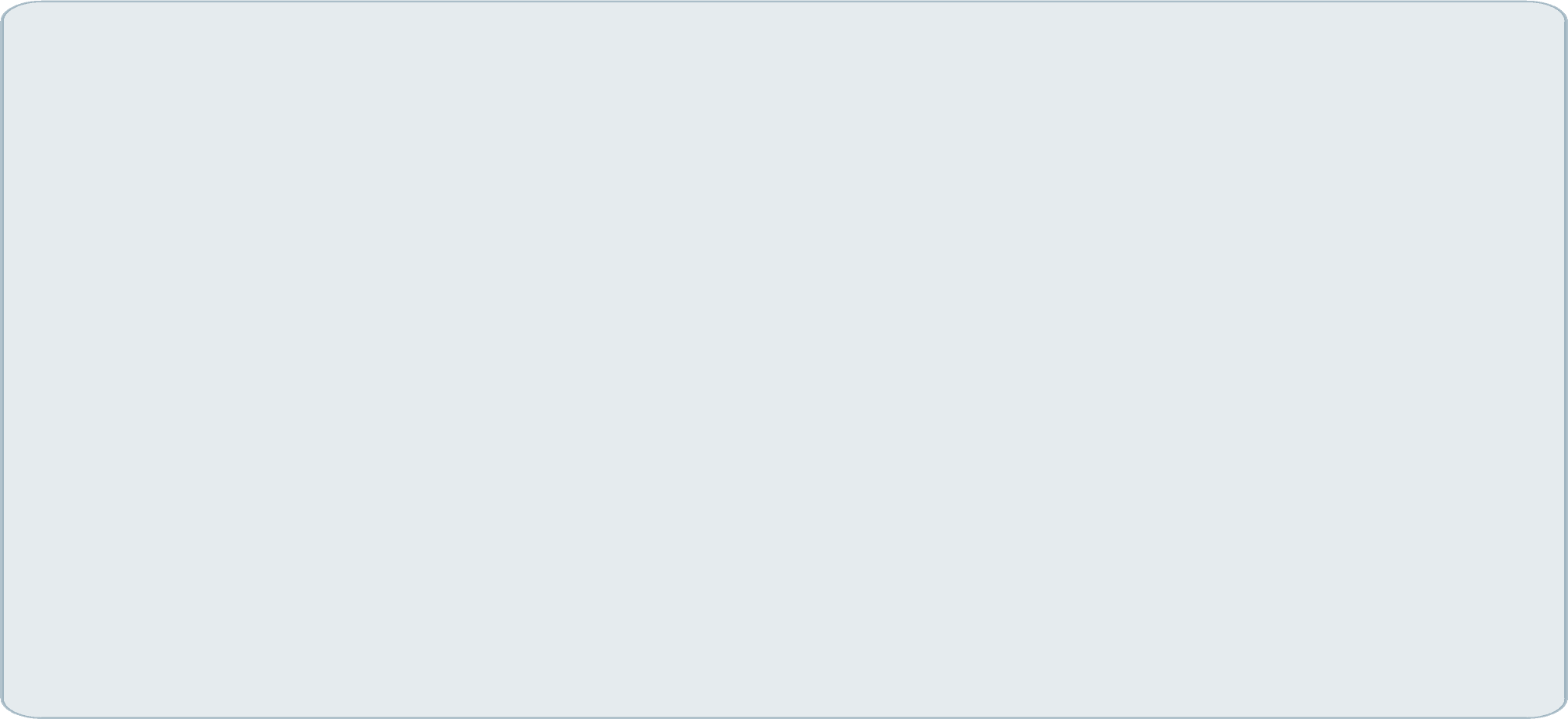
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Text-Based Communication Shortcuts

The use of emoticons and acronyms is not recommended for behavioral health service providers because of the risk of misinterpreta­ tion and the blurring of professional and per­ sonal relationship boundaries. However, pro­ viders engaged in text-based client communication should understand some

|  |  |  |  |
| --- | --- | --- | --- |
| **Expressing empathy Obtaining permission Normalizing** | | | |
| * How sad. * That is terrible. * What an incredible or­ deal. | * Is it okay if I ask you some ques­   tions 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   wrong ...   * I get the impression that... * I sense that you ... | * Do you think it would be advisa­ ble 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 nur­ turing hope** |
| * How were things differ­ ent this time than they were last time? * What do you think ac­ counts for the change? * What, if anything, did you do differently this time? | * Somehow you got past the ob­ stacle of... Is that correct? * What allowed you to ... in spite of...? * How did you do that? |
| **Assisting with goals** | |
| •  tic? 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** | •  tion, 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? |
| •  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.



**Exhibit 2.2-2: Statements To Elicit Responses From Online Clients**

I

I

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

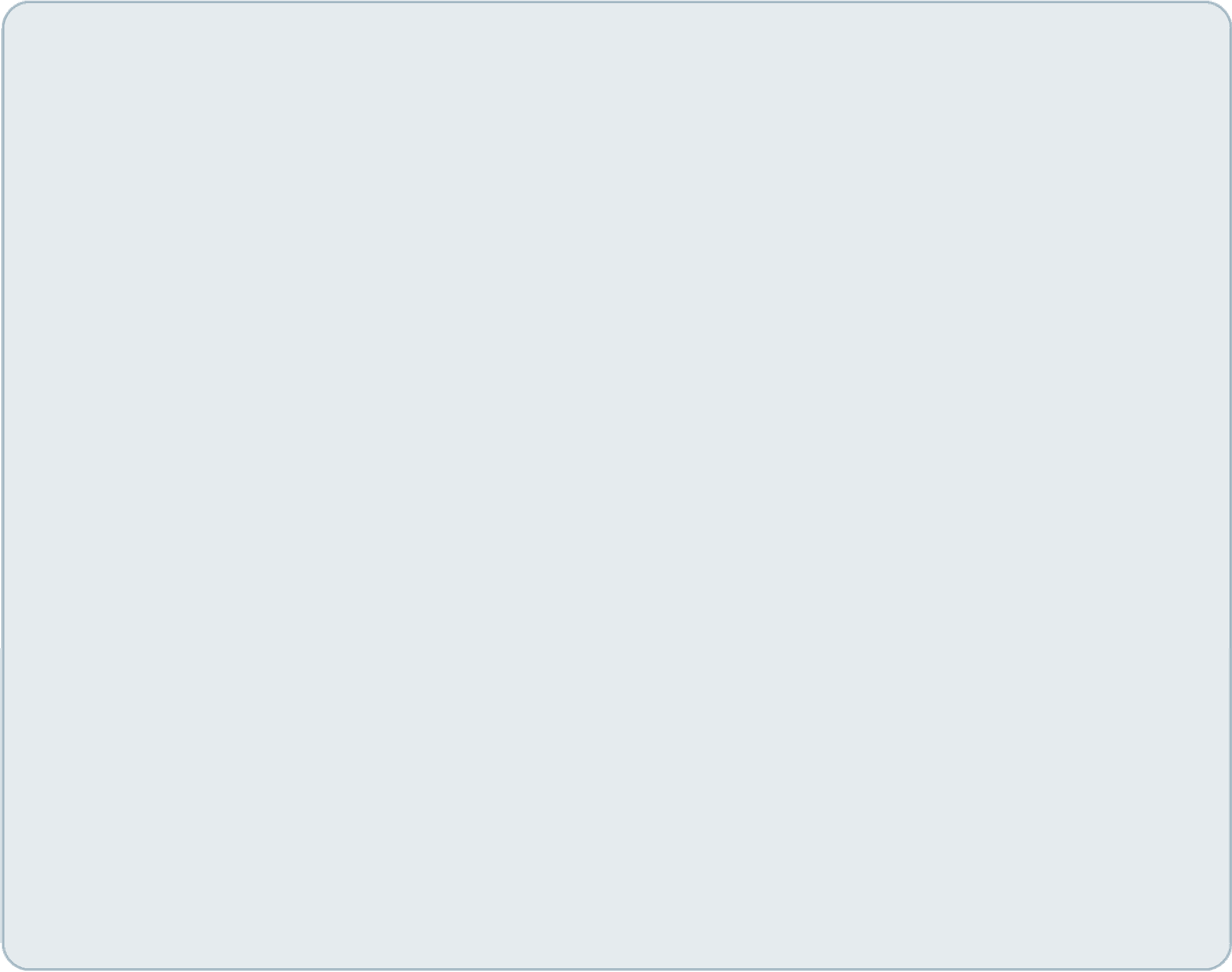
strengths and resources must match the se­ lected treatment approaches. The Interna­ tional Society for Mental Health Online (2010) identifies some considerations when screening clients for TAC (Exhibit 2.2-4).

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Common Emoticons** | | **Common Acronyms** | |
| :) or:-)  :( | Happiness, joke, sarcasm  Unhappiness | AAMOF  BBFN | As a matter of fact  Bye bye for now |
| :-/ or:-// or :-S  :@  1-0  >\_<or>< T\_T  D: | Undecided, confused Shock or screaming Yawn  Angry or frustrated Crying  Total fear | BFN BTW BYKT FITB FWIW  FYI | Bye for now By the way  But you knew that Fill in the blank For what it's worth  For your information |
| >0  X-(  :\_(or:'( or QQ | Ouch Angry  Crying | HTH  IMO/IMHO LOL | Hope this helps  In my opinion/In my humble opinion Lots of luck/love or laughing out loud |
| :o | Surprised | NC  NP NRN | No comment No problem  No reply necessary |
|  |  | OMW TIA TTYL  TYVM | On my way Thanks in advance Talk to you later  Thank you very much |

in-person support cannot offer. Nonetheless, social networking and online support also ex­ pose 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 protect­ ing 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



**Exhibit 2.2-3: Common Emoticons and Acronyms in Text-Based Communications**

Source: *Anthony et al., 2010, p. 19. Adapted with permission.*

Cyber Security Alliance's Stay Safe Online Initiative provides fact sheets, toolkits, and other information on cybersafety. The check­ lists that follow provide information on cyber­ safety; 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](http://www.staysafeonline.org/stay-safe) online/protect-your-personal­ information/social-networks)
* Privacy Tips for Teens & Young Adults ([https://www.staysafeonline.org/data­](http://www.staysafeonline.org/data) privacy-day/teen-and-young-adult­ resources)
* Safety Tips for Mobile Devices ([http://www.staysafeonline.org/stay-safe­](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 mes- saging, 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 technolog- ical 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 atti­ tude 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:

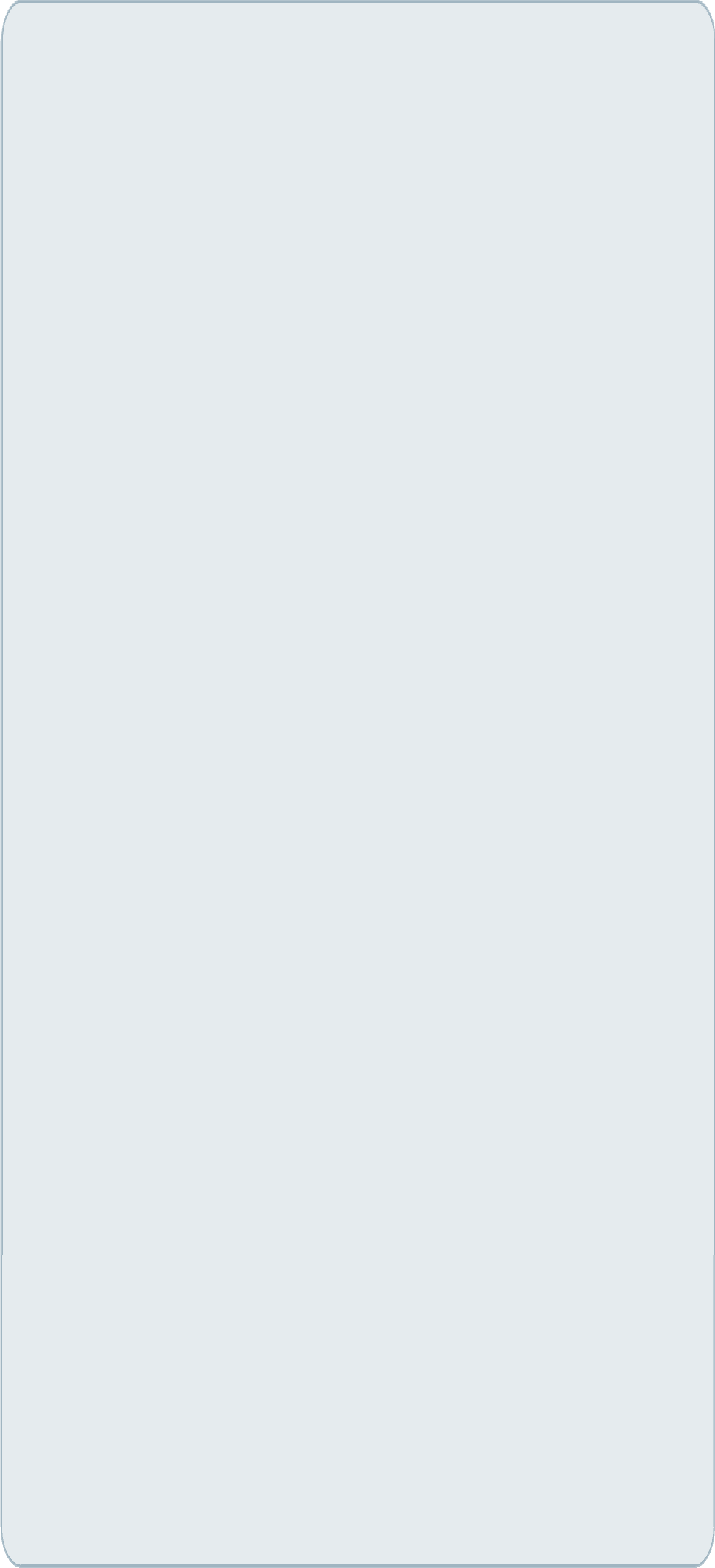
* Are there language barriers that may create obstacles to text-based communication?
* Are there cultural considerations that enhance or detract from the usefulness of online therapy?

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:* Su/er, *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, Linkedln)

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, Linkedln)

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

2-3 times a month

Once a day Once a month or less

2-6 times a week Never Once a week

□

How long have you been using the Internet?

§Never have used it

1 3 years

Less than 6 months 4=6 years

6-12 months 7 years or more How comfortable do you feel using computers, in general?

§

D

Very comfortable Somewhat uncomfortable

D

Somewhat comfortable Very uncomfortable Neither comfortable nor uncomfortable

How comfortable do you feel using the Internet?

§

D

Very comfortable Somewhat uncomfortable

D

Somewhat comfortable Very uncomfortable Neither comfortable nor uncomfortable

*Source: Bunz, 2004. Adapted with permission.*

The use of mobile devices and external stor­ age 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 Accounta­ bility Act (HIPAA) must implement policies and procedures to ensure that the electronic PHI they generate or share meets all HIP AA security requirements. The following check­ list 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 behav­ ioral 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 or­ ganizational use (Bunz, 2004). Use the follow­ ing 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 supervi­ sors 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 dis­ tinct 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 de­ liver 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 organi­ zation itself. The sample policies that follow are adapted from an internal policies and pro­ cedures 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 disor­ ders 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 adminis­ trator wishes to share these sample policies with a general telehealth administrator.

Room Evaluation

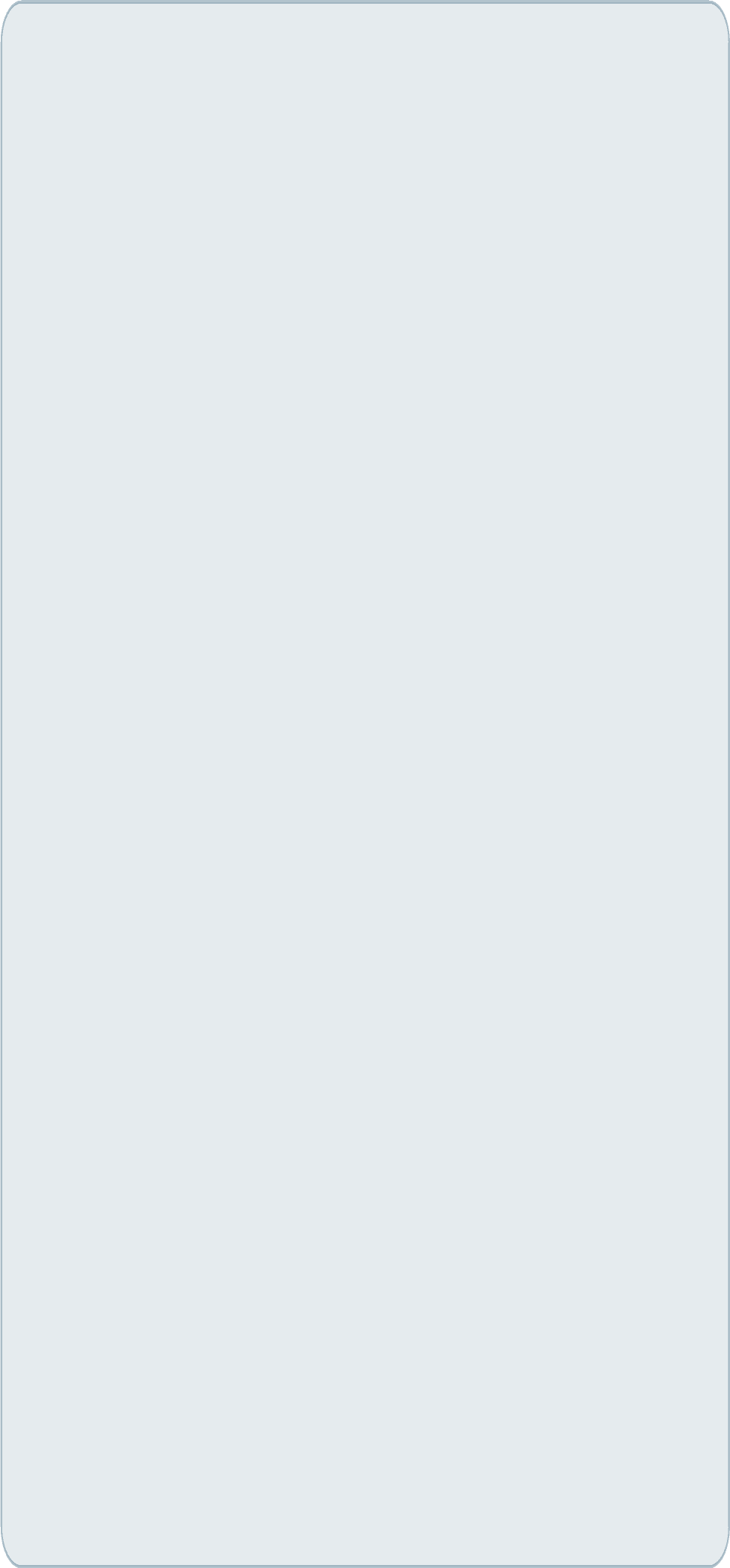
The goal of this section is to provide a process for evaluation of a room to ensure optimal conditions during a telemedicine consult.

Sound:

* A quiet room is ideal. Fabric (e.g., curtains, walls) and carpeting are beneficial to re­ duce the reflection of sound in the room.
* Be aware of ambient noise. Listen for fans, furnace, air conditioning, overhead speak­ ers, vacuuming, and noises from nearby rooms. Eliminate noises if possible.

|  |  |  |
| --- | --- | --- |
| **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 nonver­ bal 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 in­ tercom systems if this is an option.



**Exhibit 2.2-5: Technological Competencies for Supervision**

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 dis­ tracting to cameras and participants. Keep items such as light switches, screens, or re­ flective 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 position­ ing 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. In­ form 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 evalu­ ate clients for clinical visits, including poly­ com 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 indi- vidual 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 peo­

ple 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 magni­ fied 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 cam­ era 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. Al­ low 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 sensi­ tive and will pick up and amplify noises such as clicking pens and shuffling paper.
* If the microphone must be relocated dur­ ing a conference, mute the microphone and then move it to the new location.
* If one site hears an echo or sound distor­

tion over the video conferencing equip­ ment, the most likely cause is microphone placement at the site. The solution is for the offending site to move the micro­ phone away from the monitor speaker and/or turn down the volume.

* Mute microphones when a call comes in­ to 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 addi­ tional 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 con­ nects 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 re­ quest to assure the client that no other parties are attending the consult.
  + Ask the client his or her preference re­ garding 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 conferenc­ ing 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 in­ dividuals 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 instruc­ tion in educating the client in preparation for a telemedicine encounter:

* When the initial telemedicine appoint­ ment is made, instruct the client to arrive 15 to 30 minutes prior to the appoint­ ment with the consultant. Instruct those who must complete registration forms to arrive 30 minutes prior to the appoint­ ment and to bring insurance cards and a copy of their current prescriptions.
* In some cases, the consulting doctor's of­ fice 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 regis­ tered client, further registration may be unnecessary. The telemedicine nurse will notify the site if registration is required. The client bill will come from the con­ sulting 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 moni­ tor just as the provider sees the client on a monitor. There are cameras and mi­ crophones at both sites.

The consultation is private.

Ensure the introduction of each person in the rooms at both sites and the issu­ ing of statements as to the role each person plays.

Introduce any additional peripheral de­ vices 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 partici­ pants 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 re­ spond. Sometimes, providers are as­ sessing 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 pro­

vider 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] pro­ vider 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 schedul­ ing telemedicine appointments.

Option one:

1. When a provider or client requests a tele­ medicine appointment, call the telemedi­ cine 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.

1. Telemedicine staff may need to contact a consulting provider to determine whether the request can be met. The consulting provider may request further medical in­ formation to determine whether a client is appropriate for a telemedicine consult.
2. 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 facilita­ tors may assist in this communication.
3. Client initials are logged in the scheduler.

The telemedicine nurse or consulting of­ fice staff notifies the site of the client's name.

1. The telemedicine nurse will determine what equipment needs there will be for the appointment and inform the site; note these in the reservation.
2. The appointment scheduler will email appointment information automatically to all involved parties.
3. The scheduling of follow-up appoint­ ments will occur in the same manner as described in Steps 1-7.

Option two:

1. When a client or provider requests a tele­ medicine appointment, place a call to the telemedicine office, the central appoint­ ment desk <phone number>, or the con­ sulting 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 re­ quires scheduling of the client, the con­ sulting 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 instruc­ tion to ensure that proper documentation oc­ curs 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 of­ fice keeps. Give a copy to the client.
  + Register clients seeing [agency name] pro­ viders 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 docu­ ments to the telemedicine office for inclu­ sion 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] of­ fice 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 com­ plete 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 docu­ ments accessible on the members-only sec­ tion of the [agency name] Web site.
* Prepare for visits that may require docu­ mentation of client vital signs (e.g., weight, temperature, pulse, respiration, blood pres­ sure). The site facilitator may document vital signs on the visit template if appro­ priate 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 uncer­ tain 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 refer­ ring doctor.

* Documents requested may include a refer­

ral 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 oc­ curs 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 rec­ ords with a consulting doctor.
  + Send documents requested by the consult­ ant via secure fax, mail, or a picture archiv­ ing and communication system.

Prescriptions

This section describes a process for ensuring that a client receives the required prescrip­ tion(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 vid­ eo. The color of choice is blue, as it en­ hances natural skin tones.
  + A blue drape or cloth pad should be avail­ able for all medical consults. Covering car­ pet to examine feet or draping the client to better examine a limb or face or cover dis­ tracting 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 al­ low for assessment. Providers may not be certain of the technology or the conven­ ience 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 appropri­ ate, bring up the topic during the encoun­ ter. You may say, "I noticed that you are unsteady when you are walking."
* Model good communication for the cli­ ent. 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 ad­ dress (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 pro­ vider 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 ad­ ministrator must make decisions that reflect the clients, the agency, the services, and the circumstances at hand. Such policies will re­ quire updating due to changing needs, cir­ cumstances, and technologies.

# Appendix A-Bibliography

Abbass, A., Arthey, S., Elliott, J., Fedak, T., Nowoweiski, D., Markovski, J., & Nowoweiski, S. (2011). Web-conference supervision for advanced psychotherapy training: A practical guide. *Psychotherapy, 48,* 109-118.

Abbott, J. A., Klein, B., & Ciechomski, L. (2008). Best practices in online *therapy.Journal of*

*Technology in Human Services, 26,* 360-375.

Alemi, F., Haack, M. R., Nemes, S., Aughburns, R., Sinkule, J., & Neuhauser, D. (2007).

Therapeutic emails. *Substance Abuse Treatment, Prevention, and Policy, 2.*

American Counseling Association. (2005). *ACA code of ethics.* Alexandria, VA: American Counseling Association.

American Medical Association. (2000). *Guidelines for patient-physician electronic mail.* Chicago: American Medical Association.

American Mental Health Counselors Association. (2000). *Code of ethics of the American Mental Health Counselors Association.* Alexandria, VA: American Mental Health Counselors Association.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders,* 5th ed. Arlington, VA: American Psychiatric Association.

American Psychological Association. (1997). *APA statement on services by telephone, teleconferencing, and internet: A statement by the Ethics Committee of the American Psychological Association.* Washington, DC: American Psychological Association.

American Psychological Association. (2010). *Ethical principles ofpsychologists and code of conduct.*

Washington, DC: American Psychological Association.

American Psychological Association. (2012). *New generation of virtual humans helping to train psychologists.* Washington, **DC:** American Psychological Association.

American Telemedicine Association. (2009a). *Evidence-based practice for telemental health.*

Washington, DC: American Telemedicine Association.

American Telemedicine Association. (20096). *Practice guidelines for videoconferencing-based telemental health.* Washington, DC: American Telemedicine Association.

American Telemedicine Association. (2010). *US states.* Washington, DC: American Telemedicine Association.

Andersson, G., Carlbring, P., Berger, T., Almlov, J., & Cuijpers, P. (2009). What makes internet therapy work? *Cognitive Behaviour Therapy,* l.

Andersson, G., Carlbring, P., & Grimlund, A. (2008). Predicting treatment outcome in internet versus face to face treatment of panic disorder. *Computers in Human Behavior, 24,* 1790-1801.

Andersson, G., & Cuijpers, P. (2009). Internet-based and other computerized psychological treatments for adult depression: A meta-analysis. *Cognitive Behaviour Therapy, 38,* 196-205.

Andre, B., Ringdal, G. I., Loge, J. H., Rannestad, T., & Kaasa, S. (2008). The importance of key personnel and active management for successful implementation of computer-based technology in palliative care: Results from a qualitative study. *CIN* - *Computers Informatics Nursing, 26,* 183-189.

Anthony, K. and Jamison, A. (2005). *Guidelines for online counselling* & *psychotherapy, including guidelines for online supervision* (2nd edition). Lutterworth, England: British Association for Counselling and Psychotherapy.

Anthony, K., Nagel, D. M., & Goss, S. (2010). *The use of technology in mental health: Applications, ethics and practice.* Springfield, IL: Charles C. Thomas Publishers.

APA Practice Organization. (2011). *Reimbursement for telehealth services.* Washington, DC: APA Practice Central.

Aronson, I. D., Plass, J. L., & Bania, T. C. (2012). Optimizing educational video through comparative trials in clinical environments. *Educational Technology Research and Development, 60,* 469-482.

Association of Canadian Psychology Regulatory Organizations (2011). *Model standards for telepsychology service delivery.* Toronto, Canada: Association of Canadian Psychology Regulatory Organizations.

Aukstakalnis, S., & Blattner, D. (1992). *Silicon mirage: The art and science of virtual reality.*

Berkeley, CA: Peachpit Press.

Australian Psychological Society. (2004). *Guidelines for providing psychological services and products on the internet.* Melbourne, Australia: Australian Psychological Society.

Backhaus, A., Agha, Z., Maglione, M. L., Repp, A., Ross, B., Zuest, D Thorp, S. R. (2012).

Videoconferencing psychotherapy: A systematic review. *Psychological Services, 9,* 111-131.

Barak, A., Boneh, 0., & Dolev-Cohen, M. (2010). Factors underlying participants' gains in online support groups. In A. Blachnio, A. Przepiorka, & T. Rowinski (Eds.), *Internet in psychological research* (pp. 17-38). Warsaw, Poland: Cardinal Stefan Wyszynski University Press.

Barak, A., Boniel-Nissim, M., & Suler, J. (2008). Fostering empowerment in online support groups. *Computers in Human Behavior, 24,* 1867-1883.

Barak, A., Hen, L., Boniel-Nissim, M., & Shapira, N. (2008). A comprehensive review and a meta-analysis of the effectiveness of internet-based psychotherapeutic interventions. *journal of Technology in Human Services, 26,* 109-160.

Barak, A., Klein, B., & Proudfoot, J. G. (2009). Defining internet-supported therapeutic interventions. *Annals of Behavioral Medicine, 38,* 4-17.

Barak, A., Meyran, B., &John, S. (2008). Fostering empowerment in online support groups.

*Computers in Human Behavior, 24,* 1867-1883.

Barak, A., & Wander-Schwartz, M. (2000). Empirical evaluation of brief group therapy conducted in an internet chat *room.journal of Virtual Environments,* 5(1).

Barlow, J. H., Ellard, D. R., Hainsworth, J. M., Jones, F. R., & Fisher, A. (2005). A review of self-management interventions for panic disorders, phobias and obsessive-compulsive disorders. *Acta Psychiatrica Scandinavica, 111,* 272-285.

Barnett, J. E. (2011). Utilizing technological innovations to enhance psychotherapy supervision, training, and outcomes. *Psychotherapy, 48,* 103-108.

Barnett, N.P., Tidey, J., Murphy, J.G., Swift, R., & Colby, S.M. (2011). Contingency management for alcohol use reduction: A pilot study using a transdermal alcohol sensor. *Drug and Alcohol Dependence, 118,* 391-399.

Barnwell, S. V., Juretic, M.A., Hoerster, K. D., Van de Plasch, R., & Felker, B. L. (2012). VA Puget Sound Telemental Health Service to rural veterans: A growing program. *Psychological Services, 9,* 209-211.

Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression.* New York: Guilford Press.

Ben-Zeev, D., Brenner, C.J., Begale, M., Duffecy,J., Mohr, D.C., &Mueser, K.T. (2014).

Feasibility, acceptability, and preliminary efficacy of a smartphone intervention for schizophrenia. *Schizophrenia Bulletin.* Lebanon, NH: Dartmouth Psychiatric Research Center.

Ben-Zeev, D., McHugo, G. J., Xie, H., Dobbins, K., & Young, M.A. (2012). Comparing retrospective reports to real-time/real-place mobile assessment in individuals with schizophrenia and a nonclinical comparison group. *Schizophrenia Bulletin, 38,* 396-404.

Bickel, W. K., Marsch, L.A., Buchhalter, A. R., & Badger, G. J. (2008). Computerized behavior therapy for opioid-dependent outpatients: A randomized controlled trial.

*Experimental and Clinical Psychopharmacology, 16,* 132-143.

Bickel, W. K., Marsch, L. A., & Budney, A. J. (2013). Technology-delivered treatments for substance use disorders: Current status and future directions. In P. M. Miller (Ed.), *Interventions far Addiction: Comprehensive Addictive Behaviors and Disorders, Volume 3* (pp. 275-285). Oxford, England: Elsevier Limited.

Billings, G. (2012). *Michigan becomes 15th state to pass private payer telehealth reimbursement.*

Washington, DC: Center for Telehealth and e-Health Law.

Blankers, M., Koeter, M. W. J., & Schippers, G. M. (2011). Internet therapy versus internet self-help versus no treatment for problematic alcohol use: A randomized controlled trial. *journal of Consulting and Clinical Psychology, 79,* 330-341.

Bopp, J.M., Miklowitz, D. J., Goodwin, G. M., Stevens, W., Rendell, J.M., & Geddes, J. R. (2010). The longitudinal course of bipolar disorder as revealed through weekly text messaging: a feasibility study. *Bipolar Disorders, 12,* 327-334.

Bowman, D. (2012). *Telemedicine bill enables VA providers to practice across state lines.*

Washington, DC: Fierce Markets.

Boyer, E.W., Smelson, D., Fletcher, R., Ziedonis, D., & Picard, R. W. (2010). Wireless

technologies, ubiquitous computing and mobile health: Application to drug abuse treatment and compliance with HIV *therapies.journal of Medical Toxicology, 6,* 212-216.

Brendryen, H., Drozd, F., & Kraft, P. (2008). A digital smoking cessation program delivered through internet and cell phone without nicotine replacement (happy ending): Randomized controlled trial. *journal of Medical Internet Research, 10,* e51.

Brendryen, H., & Kraft, P. (2008). Happy ending: A randomized controlled trial of a digital multi-media smoking cessation intervention. *Addiction, 103,* 478-484.

Brenes, G. A., Ingram, C. W., & Danhauer, S. C. (2012). Telephone-delivered psychotherapy for late-life anxiety. *Psychological Services, 9,* 219-220.

Brennan Jr.,}. M. (2013). *Using virtual reality to improve resilience.* Gahanna, OH: The National Psychologist.

British Psychological Society. (2009). *The provision of psychological services via the internet and other non-direct means.* Leicester, England: British Psychological Society.

Broadband Adoption Act of 2015, S.1472, 114th Cong. (2015).

Brunette, M. F., Ferron, J.C., McHugo, G. J., Davis, K. E., Devitt, T. S., ... Drake, R. E. (2011). An electronic decision support system to motivate people with severe mental illnesses to quit smoking. *Psychiatric Services, 62,* 360-366.

Buglione, S. A., DeVito, A. J., &Mulloy, J.M. (1990). Traditional group therapy and computer-administered treatment for test anxiety. *Anxiety Research, 3,* 33-39.

Bunz, U. (2004). The computer-email-web (CEW) fluency scale - Development and validation.

*Internationaljournal of Human-Computer Interaction, 17,* 479-506.

Burleson, J. A., & Kaminer, Y. (2007). Aftercare for adolescent alcohol use disorder: Feasibility and acceptability of a phone intervention. *TheAmericanjournal on Addictions, 16,* 202-205.

Byrne, A. M., & Hartley, M. T. (2010). Digital technology in the 21st century: Considerations for clinical supervision in rehabilitation education. *Rehabilitation Education, 24,* 57-68.

California Telemedicine & eHealth Center. (2006). *Telemedicine reimbursement handbook.*

Sacramento, CA: California Telemedicine & eHealth Center.

Campbell, A. N. C., Nunes, E. V., Mathews, A.G., Stitzer, M., Miele, G. M., Polsky, D....

Goldman, B. (2014). Internet-delivered treatment for substance abuse: A multisite randomized controlled trial. *American journal of Psychiatry, 171 (6),* 683-690.

Canadian Psychological Association. (2006). *Ethical guidelines for psychologists providing psychological services via electronic media.* Ottawa, Canada: Canadian Psychological Society.

Capezza, N. M., & Najavits, L. M. (2012). Rates of trauma-informed counseling at substance abuse treatment facilities: Reports from over 10,000 programs. *Psychiatric Services, 63,* 390- 394.

Carise, D., Gurel, 0., McLellan, A. T., Dugosh, K., & Kendig, C. (2005). Getting patients the services they need using a computer-assisted system for patient assessment and referral­ CASPAR. *Drug and Alcohol Dependence, 80,* 177-189.

Carr, A. C., Ghosh, A., &Marks, I. M. (1988). Computer-supervised exposure treatment for phobias. *Canadianjournal of Psychiatry, 33,* 112-117.

Carroll, K. M., Ball, S. A., Martino, S., Nich, C., Babuscio, T. A., Nuro, K. F Rounsaville,

B. J. (2008). Computer-assisted delivery of cognitive-behavioral therapy for addiction: A randomized trial ofCBT4CBT. *TheAmericanjournalof Psychiatry, 165,* 881-888.

Carroll, K. M., Kiluk, B. D., Nich, C., Gordon, M.A., Portnoy, G. A., Marino, D.R., &Ball,

S.A. (2014). Computer-assisted delivery of cognitive-behavioral therapy: Efficacy and durability of CBT 4CBT among cocaine-dependent individuals maintained on methadone. *American journal of Psychiatry, 171 (4),* 436-444.

Carroll, K. M., Nich, C., & Ball, S. A. (2005). Practice makes progress? Homework assignments and outcome in treatment of cocaine dependence. *journal of Consulting and Clinical Psychology, 73,* 749-755.

Carroll, K. M., & Rounsaville, B. J. (2010). Computer-assisted therapy in psychiatry: Be brave­ it's a new world. *Current Psychiatry Reports, 12,* 426-432.

Center for Substance Abuse Treatment. (1993a). *Improving treatment for drug-exposed infants.* Treatment Improvement Protocol (TIP) Series *5.* HHS Publication No. SMA) *95-3057.* Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (19936). *Pregnant, substance-using women.* Treatment Improvement Protocol (TIP) Series 2. HHS Publication No. (SMA) 93-1998. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1993c). *Screeningfor infectious diseases among substance abusers.* Treatment Improvement Protocol (TIP) Series 6. HHS Publication No. (SMA) *95-* 3060. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1994). *Simple screening instruments for outreach for alcohol and other drug abuse and infectious diseases.* Treatment Improvement Protocol (TIP) Series 11. HHS Publication No. (SMA) 94-2094). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (199*5*a). *Alcohol and other drug screening of hospitalized trauma patients.* Treatment Improvement Protocol (TIP) Series 16. HHS Publication No. (SMA) 95-3041. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (19956). *Combining alcohol and other drug treatment with diversion for juveniles in the justice system.* Treatment Improvement Protocol (TIP) Series 21.

(HHS Publication No. (SMA) 95-3051). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1995c). *Developing state outcomes monitoring systems for alcohol and other drug abuse treatment.* Treatment Improvement Protocol (TIP) Series 14.

HHS Publication No. (SMA) 95-3031. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1995d). *The role and current status ofpatient placement criteria in the treatment of substance use disorders.* Treatment Improvement Protocol (TIP) Series 13. HHS Publication No. (SMA) 95-3021. Rockville, MD: Substance Abuse and

Mental Health Services Administration.

Center for Substance Abuse Treatment. (1995e). *The tuberculosis epidemic: Legal and ethical issues for alcohol and other drug abuse treatment providers.* Treatment Improvement Protocol (TIP) Series 18. HHS Publication No. (SMA) 95-3047. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1996). *Treatment drug courts: Integrating substance abuse treatment with legal case processing.* Treatment Improvement Protocol (TIP) Series 23. HHS Publication No. (SMA) 96-3113. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1997a). *A guide to substance abuse services for primary care clinicians.* Treatment Improvement Protocol (TIP) Series 24. HHS Publication No. (SMA) 97-3139. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (19976). *Substance abuse treatment and domestic violence.* Treatment Improvement Protocol (TIP) Series *25.* HHS Publication No. (SMA) 97-3163. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1998a). *Comprehensive case management for substance abuse treatment.* Treatment Improvement Protocol (TIP) Series 27. HHS Publication No. (SMA) 98-3222. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (19986). *Continuity of offender treatment for substance use disorders from institution to community.* Treatment Improvement Protocol (TIP) Series 30.

HHS Publication No. (SMA) 98-3245. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1998c). *Naltrexone and alcoholism treatment.* Treatment Improvement Protocol (TIP) Series 28. HHS Publication No. (SMA) 98-3206. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1998d). *Substance abuse among older adults.* Treatment Improvement Protocol (TIP) Series 26. HHS Publication No. (SMA) 98-3179. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1998e). *Substance use disorder treatment for people with physical and cognitive disabilities.* Treatment Improvement Protocol (TIP) Series 29. HHS

Publication No. (SMA) 98-3249. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1999a). *Brief interventions and brief therapies for substance abuse.* Treatment Improvement Protocol (TIP) Series 34. HHS Publication No. (SMA) 99-3353. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (19996). *Enhancing motivation for change in substance abuse treatment.* Treatment Improvement Protocol (TIP) Series *35.* HHS Publication No. (SMA) 99-3354. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1999c). *Screening and assessing adolescents for substance use disorders.* Treatment Improvement Protocol (TIP) Series 31. HHS Publication No. (SMA) 99-3282. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1999d). *Treatment for stimulant use disorders.* Treatment Improvement Protocol (TIP) Series 33. HHS Publication No. (SMA) 99-3296. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1999e). *Treatment of adolescents with substance use disorders.* Treatment Improvement Protocol (TIP) Series 32. HHS Publication No. (SMA) 99-3283. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2000a). *Integrating substance abuse treatment and vocational services.* Treatment Improvement Protocol (TIP) Series 38. HHS Publication No. (SMA) 00-3470. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (20006). *Substance abuse treatment for persons with child abuse and neglect issues.* Treatment Improvement Protocol (TIP) Series 36. HHS Publication No. (SMA) 00-3357. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2000c). *Substance abuse treatment for persons with HIV/AIDS.* Treatment Improvement Protocol (TIP) Series 37. HHS Publication No. (SMA) 00-3459. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2004a). *Clinical guidelines for the use of buprenorphine in the treatment of opioid addiction.* Treatment Improvement Protocol (TIP) Series 40. HHS Publication No. (SMA) 04-3939. Rockville, MD: Substance Abuse and Mental Health

Services Administration.

Center for Substance Abuse Treatment. (20046). *Substance abuse treatment and family therapy.* Treatment Improvement Protocol (TIP) Series 39. HHS Publication No. (SMA) 04-3957. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2004c). *The coefzdentiality of alcohol and drug abuse patient records regulation and the HIP AA Privacy Rule: Implications for alcohol and substance abuse*

*programs.* HHS Publication No. (SMA) 04-3947. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2005a). *Medication-assisted treatment for opioid addiction.* Treatment Improvement Protocol (TIP) Series 43. HHS Publication No. (SMA) 05-4048. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (20056). *Substance abuse treatment for adults in the criminal justice system.* Treatment Improvement Protocol (TIP) Series 44. HHS Publication No. (SMA) 05-4056. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2005c). *Substance abuse treatment for persons with co­ occurring disorders.* Treatment Improvement Protocol (TIP) Series 42. HHS Publication No. SMA 05-3992. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2005d). *Substance abuse treatment: Group therapy.*

Treatment Improvement Protocol (TIP) Series 41. HHS Publication No. SMA 05-4056. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2006a). *Detoxification and substance abuse treatment.* Treatment Improvement Protocol (TIP) Series *45.* HHS Publication No. SMA 06-4131. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (20066). *Substance abuse: Administrative issues in intensive outpatient treatment.* Treatment Improvement Protocol (TIP) Series 46. HHS Publication No. SMA 06-4151. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2006c). *Substance abuse: Clinical issues in intensive outpatient treatment.* Treatment Improvement Protocol (TIP) Series 47. HHS Publication No. SMA 06-4182. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2008). *Managing depressive symptoms in substance abuse clients during early recovery.* Treatment Improvement Protocol (TIP) Series 48. HHS Publication No. SMA 08-4353. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2009a). *Addressing suicidal thoughts and behaviors in substance abuse treatment.* Treatment Improvement Protocol (TIP) Series *50.* HHS Publication No. SMA 09-4381. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (20096). *Clinical supervision and the professional development of the substance abuse counselor.* Treatment Improvement Protocol (TIP) Series *52.* HHS Publication No. SMA 09-4435. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2009c). *Considerations for the provision of e-therapy.*

HHS Publication No. SMA 09-4450. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2009d). *Incorporating alcohol pharmacotherapies into medical practice.* Treatment Improvement Protocol (TIP) Series 49. HHS Publication No. SMA 09-4380. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2009e). *Substance abuse treatment: Addressing the specific needs of women.* Treatment Improvement Protocol (TIP) Series 51. HHS Publication No.

SMA 09-4426. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Technology and Aging. (2010). *Medication optimization.* Oakland, CA: Center for Technology and Aging.

Chambers, M., Connors, S. L., & McElhinney, S. (2005). Substance use and young people: The potential of technology. *journal of Psychiatric and Mental Health Nursing, 12,* 179-186.

Chambless, D. L., & Hollon, S. D. (1998). Defining empirically supported therapies. *journal of Consulting and Clinical Psychology, 66,* 7-18.

Chandler, G. M., Burck, H., Sampson, J.P., &Wray, R. (1988). The effectiveness of a generic computer program for systematic desensitization. *Computers in Human Behavior, 4,* 339-346.

Chen, Z. W., Fang, L. Z., Chen, L. Y., & Dai, H. L. (2008). Comparison of an SMS text messaging and phone reminder to improve attendance at a health promotion center: A randomized controlled *trial.journal of Zhejiang University Science B, 9,* 34-38.

Chiauzzi, E., Brevard, J., Thurn, C., Decembrele, S., & Lord, S. (2008). MyStudentBody-stress: An online stress management intervention for college students. *journal of Health Communication, 13, 555-572.*

Chiauzzi, E., Green, T. C., Lord, S., Thum, C., & Goldstein, M. (2005). My student body: A high-risk drinking prevention web site for college *students.journal of American College Health, 53,* 263-274.

Cho, J. H., Lee, H. C., Lim, D. J., Kwon, H. S., & Yoon, K. H. (2009). Mobile communication using a mobile phone with a glucometer for glucose control in Type 2 patients with diabetes: as effective as an internet-based glucose monitoring system. *journal of Telemedicine and Telecare, 15,* 77-82.

Choudhury, T., Consalvo, S., Harrison, B., LaMarca, A., LeGrand, L., Rahimi, A Haehnel,

D. (2008). The mobile sensing platform: An embedded activity recognition system. *IEEE*

*Pervasive Computing,* 7, 32-41.

Chung-Do,]., Helm, S., Fukuda, M., Alicata, D., Nishimura, S., &Else, I. (2012). Rural mental health: Implications for telepsychiatry in clinical service, workforce development, and organizational *capacity.Journal ofTelemedicine and eHealth, 18* (3), 244-246.

Cole-Lewis, H., & Kershaw, T. (2010). Text messaging as a tool for behavior change in disease prevention management. *Epidemiology Review, 32,* 56-69.

Collins, F. (2012). How to fulfill the true promise of "mHealth". *Scientific American, 307,* 16.

Consalvo, S., Landay, J. A., &McDonald, D. W. (2009). Designing for behavior change in everyday life. *Computer, 42,* 86-89.

Cuijpers, P., Marks, I. M., van Straten, A., Cavanagh, K., Gega, L., &Andersson, G. (2009).

Computer-aided psychotherapy for anxiety disorders: A meta-analytic review. *Cognitive Behaviour Therapy, 38,* 66-82.

Dallery, J., & Glenn, I. M. (2005). Effects of an Internet-based voucher reinforcement program for smoking abstinence: A feasibility *study.Journal ofApplied Behavior Analysis, 38,* 349-357.

Dallery, J., Glenn, I. M., & Raiff, B. R. (2007). An internet-based abstinence reinforcement treatment for cigarette smoking. *Drug and Alcohol Dependence, 86,* 230-238.

Danaher, B. G., McKay, H. G., & Seeley, J. R. (2005). The information architecture of behavior change *websites.journal of Medical Internet Research,* 7, el2.

Daoust, J.-P., Renaud, M., Bruyere, B., Lemieux, V., Fleury, G., & Najavits, L. M. (2012).

*Posttraumatic stress disorder and substance use disorder: Evaluation of the effectiveness of a*

*specialized clinic for French-Canadians based in a teaching hospital.* Retrieved October 7, 2013, from: <http://www.seekingsafety.org/3-03-06/studies.html#Men_and_women>

Day, X., & Schneider, P. L. (2002). Psychotherapy using distance technology: A comparison of face-to-face, video, and audio *treatment.Journal of Counseling Psychology, 49,* 499-503.

Derrig-Palumbo, K. (2010). Using chat and instant messaging (IM) to conduct a therapeutic relationship. In K. Anthony, D. M. Nagel, & S. Goss (Eds.), *The use of technology in mental health: Applications, ethics and practice* (pp. 15-28). Springfield, IL: Charles C. Thomas Publishers.

Des Jarlais, D. C., Paone, D., Milliken, J., Turner, C. F., Miller, H., Gribble, J. Friedman, S.

R. (1999). Audio-computer interviewing to measure risk behaviour for HIV among injecting drug users: A quasi-randomised trial. *The Lancet, 353,* 1657-1661.

Detweiler, M. B., Arif, S., Candelario, J., Altman, J., Murphy, P. F., Halling, M.

H.,... Detweiler, J. G. (2012). Salem VA MC-US Army Fort Bragg Warrior Transition Clinic telepsychiatry collaboration: 12-month operation clinical perspective. *journal of Telemedicine and eHealth, 18(2),* 81-86.

Digital Learning Equity Act of 2015, S.1606, 114th Cong. (2015).

Downer, S. R., Meara, J. G., Da Costa, A. C., & Sethuraman, K. (2006). SMS text messaging improves outpatient attendance. *Australian Health Review, 30,* 389-396.

Drake, R. E., & Bond, G. R. (2010). Implementing integrated mental health and substance abuse *services.journal of Dual Diagnosis, 6,* 251-262.

Duggan, M., Ellison, N. B., Lampe, C., Lenhart, A., &Madden, M. (2015). *Social media update 2014.* Washington, DC: Pew Research Center.

Eakin, E.G., Lawler, S. P., Vandelanotte, C., & Owen, N. (2007). Telephone interventions for physical activity and dietary behavior change: A systematic review. *American journal of Preventive Medicine, 32,* 419-434.

Egede, L. E., Frueh, C. B., Richardson, L. K., Acierno, R., Mauldin, P. D., Knapp, R. G., & Lejuez, C. (2009). Rationale and design: Telepsychology service delivery for depressed elderly veterans. *Trials, 10,* 22.

Elenko, E., Speier, A., & Zahar, D. (2015). A regulatory framework emerges for digital medicine. *Nature Biotechnology, 33,* 697-702.

Ellis, A., & Harper, R. A. (1975). *A new guide to rational living.* Oxford, England: Prentice­ Hall.

Emmelkamp, P. M. (2012). Attention bias modification: The emperor's new suit? *BMC Medicine, 10,* 63.

Ertin, E., Stohs, N., Kumar, S., Raijt, A., al Absi, M., & Shah, S. (2011). *Autosense: Unobtrusively wearable sensor suite for inferring the onset, causality, and consequences of stress in the field.* New York: Association for Computing Machinery.

Facebook. (2015). *Stats-Facebook newsroom.* Retrieved June 24, 2015, from: <http://newsroom.fb.com/company-info>

Farvolden, P., Cunningham, J., & Selby, P. (2009). Using e-health programs to overcome barriers to the effective treatment of mental health and addiction problems. *journal of Technology in Human Services, 27,* 5-22.

Favela, J., Tentori, M., & Gonzalez, V. M. (2010). Ecological validity and pervasiveness in the evaluation of ubiquitous computing technologies for health care. *International journal of Human-Computer Interaction, 26,* 414-444.

Federal Communications Commission. (2015). *FCC Chairman Wheeler seeks comment on modernizing lifeline to make 21st century broadband affordable for low-income households.* Washington, DC: Federal Communications Commission.

Federation of State Medical Boards of the United States (2002). *Model guidelines for the appropriate use of the internet in medical practice.* Euless, TX: Federation of State Medical Boards of the United States, Special Committee on Professional Conduct and Ethics.

Finfgeld-Connett, D., &Madsen, R. (2008). Web-based treatment of alcohol problems among rural women: Results of a randomized pilot investigation. *journal of Psychosocial Nursing and Mental Health Services, 46,* 46-53.

Foley, L., &Maddison, R. (2010). Use of active video games to increase physical activity in children: A (virtual) reality? *Pediatric Exercise Science, 22,* 7-20.

Forducey, P. G., Glueckauf, R. L., Bergquist, T. F., Maheu, M. M., & Yutsis, M. (2012).

Telehealth for persons with severe functional disabilities and their caregivers: Facilitating self­ care management in the home setting. *Psychological Services, 9,* 144-162.

Forman, R., Crits-Christoph, P., Kaynak, 0., Worley, M., Hantula, D. A., Kulaga, A....

Cawley, M. (2007). A feasibility study of a web-based performance improvement system for substance abuse treatment providers. *journal of Substance Abuse Treatment, 33,* 363-371.

Franklin, V., Waller, A., Pagliari, C., & Greene, S. (2003). "Sweet talk": Text messaging support for intensive insulin therapy for young people with diabetes. *Diabetes Technology and Therapeutics,* 5, 991-996.

Franklin, V. L., Waller, A., Pagliari, C., & Greene, S. A. (2006). A randomized controlled trial of Sweet Talk, a text-messaging system to support young people with diabetes. *Diabetic Medicine, 23,* 1332-1338.

Free, C., Knight, R., Robertson, S., Whittaker, R., Edwards, P., Zhou, W Roberts, I.

(2011). Smoking cessation support delivered via mobile phone text messaging (txt2stop): A single-blind, randomised trial. *The Lancet, 378,* 49-55.

Free, C., Phillips, G., Galli, L., Watson, L., Felix, L., Edwards, P Haines, A. (2013). The

effectiveness of mobile-health technology-based health behavior change or disease management interventions for health care consumers: A systematic review. *PLoS Medicine, 10,* el001362.

Free, C., Whittaker, R., Knight, R., Abramsky, T., Rodgers, A., & Roberts, I. G. (2009). Txt2stop: A pilot randomised controlled trial of mobile phone-based smoking cessation support. *Tobacco Control, 18,* 88-91.

Garcia-Lizana, F., &Munoz-Mayorga, I. (2010a). Telemedicine for depression: A systematic review. *Perspectives in Psychiatric Care, 46(2),* 119-126.

Garcia-Lizana, F., &Munoz-Mayorga, I. (2010b). What about telepsychiatry? A systematic review. *Primary Care Companion to the journal of Clinical Psychiatry, 12.*

Gerber, B. S., Stolley, M. R., Thompson, A. L., Sharp, L. K., & Fitzgibbon, M. L. (2009).

Mobile phone text messaging to promote healthy behaviors and weight loss maintenance: A feasibility study. *Health Informatics journal, 15,* 17-25.

Gibbons, M. C. (2007). *eHealth solutions far healthcare disparities.* New York: Springer Publications.

Gibbons, M. C., Fleisher, L., Slamon, R. E., Bass, S., Kandadai, V., & Beck, J. R. (2011).

Exploring the potential ofWeb 2.0 to address health disparities.journal*of Health Communication, 16, Supplement 1,* 77-89.

Gilman, M., & Stensland, J. (2013). Telehealth and Medicare: Payment policy, current use, and prospects for growth. *Medicare* & *Medicaid Research, 3(4),* El-El3.

Glasgow, R. E., Bull, S. S., Piette, J. D., & Steiner, J. F. (2004). Interactive behavior change technology: A partial solution to the competing demands of primary care. *American journal of*

*Preventive Medicine, 27,* 80-87.

Godleski, L., Darkins, A., & Peters, J. (2012). Outcomes of 98,609 U.S. Department of Veterans Affairs patients enrolled in telemental health services, 2006-2010. *Psychiatric Services, 63,* 383-385.

Golkaramnay, V., Bauer, S., Haug, S., Wolf, M., &Kordy, H. (2007). The exploration of the effectiveness of group therapy through an internet chat as aftercare: A controlled naturalistic study. *Psychotherapy and Psychosomatics, 76,* 219-225.

Graf, N. M., & Stebnicki, M.A. (2002). Using e-mail for clinical supervision in practicum: A qualitative analysis. *journal of Rehabilitation, 68,* 41-49.

Granholm, E., Ben-Zeev, D., Link, P. C., Bradshaw, K. R., & Holden, J. L. (2012). Mobile assessment and treatment for schizophrenia (MATS): A pilot trial of an interactive text­ messaging intervention for medication adherence, socialization, and auditory hallucinations. *Schizophrenia Bulletin, 38,* 414-425.

Green, B. L. (1996). Trauma history questionnaire. In B. H. Stamm (Ed.), *Measurement of stress, trauma, and adaptation* (pp. 366-369). Lutherville, MD: Sidran Press.

Griffiths, K. M., Calear, L. A., & Banfield, M. (2009). Systematic review on internet support groups (ISGs) and depression (1): Do ISGs reduce depressive symptoms? *journal of Medical Internet Research, 11,* e40.

Griffiths, K. M., & Christensen, H. (2007). Internet-based mental health programs: A powerful tool in the rural medical kit. *TheAustralianjournal of Rural Health, 15,* 81-87.

Gustafson, D. H., McTavish, F. M., Ming-Yuan, C., Atwood, A. K.,Johnson, R. A., Boyle,

M.G .... Shah, D. (2014). A smartphone application to support recovery from alcoholism: A randomized clinical *trial.JAMA, 71(5),* 566-572.

Gustafson, D. H., Shaw, B. R., Isham, A., Baker, T., Boyle, M. G., & Levy, M. (2011).

Explicating an evidence-based, theoretically informed, mobile technology-based system to improve outcomes for people in recovery for alcohol dependence. *Substance Use* & *Misuse, 46,* 96-111.

Guthmann, D., & Graham, V. (2005). Substance abuse: A hidden problem within the D/deaf and hard of hearing communities. *journal of Teaching in the Addictions, 3,* 49-64.

Hanley, T., & Reynolds, D. J., Jr. (2009). Counselling psychology and the internet: A review of the quantitative research into online outcomes and alliances within text-based therapy.

*Counselling Psychology Review, 24,* 4-13.

Hasin, D.S., Aharonovich, E., & Greenstein, E. (2014). HealthCall for the smartphone: Technology enhancement of brief intervention in HIV alcohol dependent patients. *Addiction Science* & *Clinical Practice, 9, 5.*

Hasson, H., Brown, C., & Hasson, D. (2010). Factors associated with high use of a workplace web-based stress management program in a randomized controlled intervention study. *Health Education Research, 25,* 596-607.

Haug, S., Meyer, C., Gross, B., Schorr, G., Thyrian, J. R., Kordy, H John, U. (2008).

Continuous individual support of smoking cessation in socially deprived young adults via mobile phones-Results of a pilot study. *Gesundheitswesen, 70,* 364-371.

Healthcare Information and Management Systems Society. (2011). Security of mobile computing devices in the healthcare environment. Chicago: Healthcare Information and Management Systems Society.

Hester, **R. K.,** & Delaney, H. D. (1997). Behavioral self-control program for Windows: Results of a controlled clinical *trial.journal of Consulting and Clinical Psychology, 65,* 686-693.

Hester, R. K., Squires, D. D., & Delaney, H. D. (2005). The drinker's check-up: 12-month outcomes of a controlled clinical trial of a stand-alone software program for problem drinkers.

*journal of Substance Abuse Treatment, 28,* 159-169.

Hoge, M.A., Morris,]. A., Daniels, A. S., Stuart, G. W., Huey, L. Y., &Adams, N. (2007).

*An action plan far behavioral health workforce development: A framework far discussion.* Rockville, MD: Substance Abuse and Mental Health Services Administration.

Holtyn, A.F., Koffamus, M.N., DeFulio, A., Sigurdsson, S.O., Strain, E.C., Schwartz, R.P....

Silverman, K. (2014). The therapeutic workplace to promote treatment engagement and drug abstinence in out-of-treatment injection drug users: A randomized controlled trial. *Preventive Medicine.*

Hooper, L. M., Stockton, **P.,** Krupnick, **J. L.,** & Green, **B. L.** (2011). Development, use, and psychometric properties of the trauma history questionnaire. *journal of Loss and Trauma, 16,* 258-283.

Horrigan, J. (2009). *Wireless internet use.* Washington, DC: Pew Research Center.

Hunkeler, E. M., Hargreaves, W. A., Fireman, B., Terdiman, J., Meresman, J. F., Porterfield,

Y. ... Taylor, C. B. (2012). A web-delivered care management and patient self-management program for recurrent depression: A randomized trial. *Psychiatric Services,* 63(11), 1063-1071.

Hustad, J. T. P., Barnett, N. P., Borsari, B., &Jackson, K. M. (2010). Web-based alcohol prevention for incoming college students: A randomized controlled trial. *Addictive Behaviors, 35(3),* 183-189.

Institute of Medicine. (2006). *Improving the quality of health care far mental and substance-use conditions: Quality chasm series.* Washington, DC: Institute of Medicine.

Institute of Medicine. (2008). *Treatment of posttraumatic stress disorder: An assessment of the evidence.* Washington, DC: The National Academies Press.

Institute of Medicine. (2009). *Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities.* Washington, DC: National Academies Press.

International Society for Mental Health Online-Clinical Study Group. (2010). *Assessing a person's suitability far online therapy.* Marietta, GA: International Society for Mental Health Online-Clinical Study Group.

International Society for Mental Health Online, & Psychiatric Society for Informatics. (2000).

*The suggested principles far the online provision of mental health services.* Marietta, GA: International Society for Mental Health Online.

International Telecommunication Union. (2011a). *Key global telecom indicators far the world telecommunication service sector.* Geneva: International Telecommunication Union.

International Telecommunication Union. (20116). *The world in 2011: ITC/acts and figures.*

Geneva: International Telecommunication Union.

International Telecommunication Union. (2015). *JCT facts and figures.* Geneva: International Telecommunication Union.

Islam, M. M., Topp, L. Conigrave, K.M., von Beek, I., Maher, L., White, A Day, C. A.

(2012). The reliability of sensitive information provided by injecting drug users in a clinical setting: Clinician-administered versus audio computer-assisted self-interviewing (ACASI). *AIDS Care: Psychological and socio-medical aspects of AIDS/HIV, 24(12),* 1496-1503.

Jamoom, E., Beatty, P., Bercovitz, A., Woodell, D., Palso, M.A., & Rechtsteiner, M. S. (2012).

*Physician adoption of electronic health record systems: United States, 2011.* NCHS data brief, No.

98. Hyattsville, MD: National Center for Health Statistics.

Jansen, W., & Scarfone, K. (2008). *Guidelines on cell phone and PDA security: Recommendations of the National Institute of Standards and Technology.* Washington, DC: U.S. Government Printing Office.

Jeyaraj, A., Rottman, J. W., & Lacity, M. C. (2006). A review of the predictors, linkages, and biases in IT innovation adoption *research.journal of Information Technology, 21,* 1-23.

Jones, B. N., & Colenda, C. C. (1997). Telemedicine and geriatric psychiatry. *Psychiatric Services, 48(6),* 783-785.

Jones, S., & Fox, S. (2009). *The social life of health information: Americans'pursuit of health takes place within a widening network of both online and ojjline sources.* Washington, **DC:** Pew Research Center.

Joo, N. S., & Kim, B. T. (2007). Mobile phone short message service messaging for behaviour modification in a community-based weight control programme in Korea. *journal of Telemedicine and Telecare, 13,* 416-420.

Jordan, E.T., Ray, E. M., Johnson, P., & Evans, W. D. (2011). Text4Baby: Using text messaging to improve maternal and newborn health. *Nursingfor Womens Health, 15,* 206-212.

Juzang, I., Fortune, T., Black, S., Wright, E., & Bull, S. (2011). A pilot programme using mobile phones for HIV prevention. *journal ofTelemedicine and Telecare, 17,* 150-153.

Kaltenthaler, E., Parry, G., Beverley, C., & Ferriter, M. (2008). Computerised cognitive­ behavioural therapy for depression: Systematic review. *British journal of Psychiatry, 193,* 181- 184.

Kaminer, Y., Burleson, J. A., Goldston, D. B., & Burke, R. H. (2006). Suicidal ideation among adolescents with alcohol use disorders during treatment and aftercare. *The American journal on Addictions, 15,* 43-49.

Kaminer, Y., & Napolitano, C. (2004). Dial for therapy: Aftercare for adolescent substance use disorders. *journal of the American Academy of Child* & *Adolescent Psychiatry, 43,* 1171-1174.

Kanz, J. E. (2001). Clinical-supervision.com: Issues in the provision of online supervision.

*Professional Psychology: Research and Practice, 32,* 415-420.

Karlin, B. E., Ruzek, J. I., Chard, K. M., Eftekhari, A., Monson, C. M., Hembree, E. A....

Foa. E. B. (2010). Dissemination of evidence-based psychological treatments for posttraumatic stress disorder in the Veterans Health Administration. *journal of Traumatic Stress, 23,* 663-673.

Kiluk, B. D., Sugarman, D. E., Nich, C., Gibbons, C. J., Martino, S., Rounsaville, B. J. ...

Carroll, K. M. (2011). A methodological analysis of randomized clinical trials of computer­ assisted therapies for psychiatric disorders: Toward improved standards for an emerging field. *American journal of Psychiatry, 168,* 790-799.

Kim, S. I., & Kim, H. S. (2008). Effectiveness of mobile and internet intervention in patients with obese type 2 diabetes. *International journal of Medical Informatics,* 77, 399-404.

King, V. L., Stoller, K. B., Kidorf, M., Kindbom, K., Hursh, S., Brady, T., & Brooner, R. K. (2009). Assessing the effectiveness of an internet-based videoconferencing platform for delivering intensified substance abuse counseling. *journal of Substance Abuse Treatment, 36,* 331-338.

Knealing, T. W., Wong, C.J., Diemer, K. N., Hampton,]., &Silverman, K. (2006). A randomized controlled trial of the therapeutic workplace for community methadone patients: A partial failure to engage. *Experimental and Clinical Psychopharmacology, 14,* 350-360.

Koch, E. F. (2012). The VA Maryland health care system's telemental health program.

*Psychological Services, 9,* 203-205.

Kotz, D., Avancha, S., & Baxi, A. (2009). A privacy framework for mobile health and home­ care systems. In *Proceedings of the first ACM workshop on security and privacy in medical and home-care systems* (pp. 1-12). New York: Association for Computing Machinery.

Kuhn, E., Greene, C., Hoffman, J., Nguyen, T., Wald, L., Schmidt, J., Ruzek, J. (2014).

Preliminary evaluation of PTSD Coach, a smartphone app for post-traumatic stress symptoms. *Military Medicine, 179,* 12-18.

LaMendola, W. F. (1997). *Telemental health services in the U.S. frontier areas.* Letter to the Field No. 3. Boulder, CO: Western Interstate Commission for Higher Education.

Lazev, A., Vidrine, D., Arduino, R., & Gritz, E. (2004). Increasing access to smoking cessation treatment in a low-income, HIV-positive population: The feasibility of using cellular telephones. *Nicotine and Tobacco Research, 6,* 281-286.

Lenhart, A. (2009a). *Adults and social network websites.* Washington, DC: Pew Research Center.

Lenhart, A. (20096). *Social networks grow: Friending mom and dad.* Washington, DC: Pew Research Center.

Lenhart, A. (2009c). *The democratization of online social networks.* Washington, DC: Pew Research Center.

Leong, K. C., Chen, W. S., Leong, K. W., Mastura, I., Mimi, 0., Sheikh, M.A Teng, C.

L. (2006). The use of text messaging to improve attendance in primary care: A randomized controlled trial. *Family Practice, 23,* 699-705.

Levine, D., Madsen, A., Wright, E., Barar, R. E., Santelli, **J.,** & Bull, S. (2011). Formative research on MySpace: Online methods to engage hard-to-reach populations. *journal of Health Communication, 16,* 448-454.

Lieberman, D. Z., & Huang, S. W. (2008). A technological approach to reaching a hidden population of problem drinkers. *Psychiatric Services, 59,* 297-303.

Lim, M. S. C., Hocking,]. S., Hellard, M. E., &Aitken, C. K. (2008). SMS STI: A review of the uses of mobile phone text messaging in sexual health. *International journal of STD* & *AIDS, 19,* 287-290.

Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder.* New York: Guilford Press.

Lord, S., Brevard, J., & Budman, S. (2011). Connecting to young adults: An online social network survey of beliefs and attitudes associated with prescription opioid misuse among college students. *Substance Use* & *Misuse, 46,* 66-76.

Lubans, D.R., Morgan, P. J., Callister, R., & Collins, C. E. (2009). Effects of integrating pedometers, parental materials, and e-mail support within an extracurricular school sport intervention. *journal ofAdolescent Health, 44,* 176-183.

Luxton, D. D., June, J. D., & Kim, J. T. (2011). Technology-based suicide prevention: Current applications and future directions. *Telemedicinejournal and e-Health: The Officialjournal of the American Telemedicine Association, 17, 5*0-54.

Luxton, D. D., Sirotin, A. P., & Mishkind, M. C. (2010). Safety of telemental healthcare delivered to clinically unsupervised settings: A systematic review. *journal of Telemedicine and eHealth, 16(6),705-711.*

Maheu, M. M., & Gordon, B. L. (2000). Counseling and therapy on the Internet. *Professional Psychology: Research and Practice, 31,* 484-489.

Maheu, M., McMenamin, J., & Pulier, M. L. (2013). Optimizing the use of technology in psychology with best practice principles. In G. P. Koocher,J. C. Norcross, &B. A. Greene, (Eds.), *Psychologists' desk reference* (3rd edition). New York: Oxford University Press Publication.

Maheu, M. M., Pulier, M. L., & Roy, S. (2013). Finding, evaluating and using smartphone applications. In G. P. Koocher, J.C. Norcross, & B. A. Greene (Eds.), *Psychologists' desk reference* (3rd edition). New York: Oxford University Press.

Maheu, M. M., Pulier, M. L., Wilhelm, F. H., McMenamin,J. P., &Brown-Connolly, N. E. (2004). *The mental health professional and the new technologies: A handbook for practice today.*

Mahwah, NJ: Lawrence Erlbaum Associates.

Mallen, M. **J.,** Vogel, D. L., & Rochlen, A. B. (2005). The practical aspects of online counseling: Ethics, training, technology, and competency. *The Counseling Psychologist, 33,* 776-818.

Mallen, M. J., Vogel, D. L., Rochlen, A. B., & Day, S. X. (2005). Online counseling: Reviewing the literature from a counseling psychology framework. *The Counseling Psychologist, 33,* 819- 871.

Marrow, C. E., Hollyoake, K., Hamer, D., & Kenrick, C. (2002). Clinical supervision using video-conferencing technology: A reflective *account.Journal of Nursing Management, 10, 275-* 282.

Marsch, L.A. (2011a, August). Computer delivered psychosocial treatment for substance use disorders. In W. M. Aklin, & L. Onken, (Co-Chairs), *Symposium on neurobiologicaland technological mechanisms to improve the efficacy and effectiveness of substance abuse treatment.*

Symposium conducted at the American Psychological Association Annual Meeting, Washington, DC.

Marsch, L.A. (20116). Technology-based interventions targeting substance use disorders and related issues: An editorial. *Substance Use* & *Misuse, 46,* 1-3.

Marsch, L.A., & Bickel, W. K. (2004). Efficacy of computer-based HIV/AIDS education for injection drug users. *American journal of Health Behavior, 28,* 316-327.

Marsch, L.A., Bickel, W. K., & Badger, G. J. (2007). Applying computer technology to substance abuse prevention science: Results of a preliminary examination. *journal of Child* &

*Adolescent Substance Abuse, 16,* 69-94.

Marsch, L. A., Grabinski, M. J., Bickel, W. K., Desrosiers, A., Guarino, H., Muehlbach, B....

Acosta, M. (2011). Computer-assisted HIV prevention for youth with substance use disorders. *Substance Use* & *Misuse, 46,* 46-56.

Marsch, L.A., Guarino, H., Acosta, M., Aponte-Melendez, Y., Cleland, C., Grabinski, M., ...

Edwards, J. (2013). Web-based behavioral treatment for substance use disorders as a partial replacement of standard methadone maintenance treatment. *journal of Substance Abuse, 46,*

43-51.

McAdams III, C. R., & Wyatt, K. L. (2010). The regulation of technology-assisted distance counseling and supervision in the United States: An analysis of current extent, trends, and implications. *Counselor Education and Supervision, 49,* 179-192.

McCann, I. L., & Pearlman, L.A. (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *journal of Traumatic Stress, 3,* 131-149.

McGinty, K. L., Saeed, S. A., Simmons, S. C., & Yildirim, Y. (2006). Telepsychiatry and e­ mental health services: Potential for improving access to mental health care. *Psychiatric Quarterly,* 77, 335-342.

McGovern, M. P., Lambert-Harris, C., Alterman, A. I., Xie, H., &Meier, A. (2011). A randomized controlled trial comparing integrated cognitive behavioral therapy versus individual addiction counseling for co-occurring substance use and posttraumatic stress

*disorders.journal of Dual Diagnosis,* 7, 207-227.

McGurk, S. R., Twamley, E.W., Sitzer, D. I., McHugo, G.J., &Mueser, K. T. (2007). A meta-analysis of cognitive remediation in schizophrenia. *American journal of Psychiatry, 164,* 1791-1802.

McKay, J. R., Lynch, K. G., Shepard, D. S., & Pettinati, H. M. (2005). The effectiveness of telephone-based continuing care for alcohol and cocaine dependence: 24-month outcomes. *Archives of General Psychiatry, 62,* 199-207.

McKay, J. R., Lynch, K. G., Shepard, D.S., Ratichek, S., Morrison, R., Koppenhaver, J., & Pettinati, H. M. (2004). The effectiveness of telephone-based continuing care in the clinical management of alcohol and cocaine use disorders: 12-month *outcomes.journal of Consulting*

*and Clinical Psychology, 72,* 967-979.

McKinsey and Company, & U.S. National Information Infrastructure Advisory Council (1995).

*Connecting K-12 students to the information superhighway.* Palo Alto, CA: McKinsey and Co.

McTavish, F. M., Chih, M.-Y., Shah, D., & Gustafson, D. H. (2012). How patients recovering from alcoholism use a smartphone *intervention.journal of Dual Diagnosis,* 8(4), 204-394.

Meites, E., & Thom, D. H. (2007). Telephone counseling improves smoking cessation rates.

*American Family Physician, 75,* 651-652.

Mensinger, J. L., Diamond, G. S., Kaminer, Y., & Wintersteen, M. B. (2006). Adolescent and therapist perception of barriers to outpatient substance abuse treatment. *American journal of Addiction, 15, Supplement 1,* 16-25.

Merz, T. A. (2010). Using cell/mobile phone SMS for therapeutic intervention. In K. Anthony,

D. M. Nagel, & S. Goss (Eds.), *The use of technology in mental health: Applications, ethics and practice* (pp. 29-38). Springfield, IL: Charles C. Thomas Publishers.

Meyer, B. C., Clarke, C. A., Troke, T. M., & Friedman, L. S. (2012). Essential telemedicine elements (tele-ments) for connecting the academic health center and remote community providers to enhance patient care. *Academic Medicine, 87,* 1032-1040.

Midkiff, D. M., & Wyatt, W. J. (2008). Ethical issues in the provision of online mental health services (etherapy). *journal of Technology in Human Services, 26,* 310-332.

Miller, N. A., & Najavits, L. M. (2012). Creating trauma-informed correctional care: A balance of goals and environment. *European journal of Psychotraumatology, 3,* 17246.

Mills, K. L., Teesson, M., Back, S. E., Brady, K. T., Baker, A. L., Hopwood, S Ewer, P. L.

(2012). Integrated exposure-based therapy for co-occurring posttraumatic stress disorder and substance dependence: A randomized controlled trial. *journal of the American Medical Association, 308,* 690-699.

Mohr, D. C. (2009). Telemental health: Reflections on how to move the field forward. *Clinical Psychology: Science and Practice, 16,* 343-347.

Mohr, D. C., Carmody, T., Erickson, L., Jin, L., & Leader, J. (2011). Telephone-administered cognitive behavioral therapy for veterans served by community-based outpatient clinics. *journal of Consulting and Clinical Psychology, 79,* 261-265.

Mohr, D. C., Siddique, J., Ho, J., Duffecy, J., Jin, L., & Fokuo, J. K. (2010). Interest in behavioral and psychological treatments delivered face-to-face, by telephone, and by internet. *Annals of Behavioral Medicine, 40,* 89-98.

Molfenter, T., Boyle, M., Holloway, D., & Zwick, J. (2015). Trends in telemedicine use in addiction treatment. *Addiction Science* & *Clinical Practice, 10,* 14.

Moore, B. A., Fazzino, T., Garnet, B., Cutter, C. J., & Barry, D. T. (2011). Computer-based interventions for drug use disorders: A systematic review. *journal of Substance Abuse Treatment, 40,* 215-223.

Moore, D., Guthmann, D., Rogers, N., Fraker, S., & Embree, J. (2009). E-therapy as a means for addressing barriers to substance use disorder treatment for persons who are deaf. *journal of Sociology and Social Welfare, 36,* 75-92.

Moreno, M.A., Vanderstoep, A., Parks, M. R., Zimmerman, F. J., Kurth, A., & Christakis, D.

1. (2009). Reducing at-risk adolescents' display of risk behavior on a social networking web site: A randomized controlled pilot intervention trial. *Archives of Pediatrics and Adolescent Medicine, 163,* 35-41.

Muller, I., & Yardley, L. (2011). Telephone-delivered cognitive behavioural therapy: A systematic review and meta-analysis. *journal of Telemedicine and Telecare, 17,* 177-184.

Murphy, L., MacFadden, R., &Mitchell, D. (2008). Cybercounseling online: The development of a university-based training program for e-mail counseling. *journal of Technology in Human Services, 26,* 447-469.

Murphy, L. J., & Mitchell, D. L. (1998). When writing helps to heal: E-mail as therapy. *British journal of Guidance* & *Counselling, 26,* 21-32.

Nagal, D., &Anthony, K. (2009). *Ethicalframeworkfor the use of technology in mental health.*

Highlands, NJ: Online Therapy Institute.

Najavits, L. M. (2002). *Seeking safety: A treatment manual for PTSD and substance abuse.* New York: Guilford Press.

Najavits, L. M. (2009). Seeking safety: An implementation guide. In A. Rubin & D. W. Springer (Eds.), *The clinician's guide to evidence-based practice.* Hoboken, NJ: John Wiley and Sons.

Najavits, L. M., Norman, S. B., Kivlahan, D., & Kosten, T. R. (2010). Improving PTSD/substance abuse treatment in the VA: A survey of providers. *The American journal on Addictions, 19,* 257-263.

National Association of Social Workers. (2008). *Code of ethics.* Washington, DC: National Association of Social Workers.

National Association of State Alcohol and Drug Abuse Directors. (2009). *Telehealth in state substance use disorder (SUD) services.* Washington, DC: National Association of State Alcohol and Drug Abuse.

National Board for Certified Counselors and Center for Credentialing and Education. (2001).

*The practice of Internet counseling.* Greensboro, NC: National Board for Certified Counselors.

National Institute for Health Research Clinical Research Network. (2011). Network support pays dividends for smoking cessation study. In *News from the network* (pp. 6-7). Leeds, UK: National Institute for Health Research Clinical Research Network.

Naylor, M. R., Keefe, F. J., Brigidi, B., Naud, S., & Helzer, J.E. (2008). Therapeutic interactive voice response for chronic pain reduction and relapse prevention. *Pain, 134,* 335-345.

Network for the Improvement of Addiction Treatment. (2013). *NIATx: Five principles.*

Madison, WI: Network for the Improvement of Addiction Treatment.

Neuner, F., Schauer, M., Klaschik, C., Karunakara, U., & Elbert, T. (2004). A comparison of

narrative exposure therapy, supportive counseling, and psychoeducation for treating posttraumatic stress disorder in an African refugee settlement. *journal of Consulting and Clinical Psychology, 72,* 579-587.

Neuner, F., Schauer, M., Roth, W. T., & Elbert, T. (2002). A narrative exposure treatment as intervention in a refugee camp: A case report. *Behavioural and Cognitive Psychotherapy, 30,* 205-210.

New Zealand Psychologists Board. (2011). *Draft guidelines: Psychology services delivered via the Internet and other electronic media.* Wellington, New Zealand: New Zealand Psychologists Board.

Newman, M. G., Consoli, A., & Taylor, C. B. (1997). Computers in assessment and cognitive behavioral treatment of clinical disorders: Anxiety as a case in point. *Behavior Therapy, 28,* 211-235.

Newman, M. G., Kenardy, J., Herman, S., & Taylor, C. B. (1997). Comparison of palmtop­ computer-assisted brief cognitive-behavioral treatment to cognitive-behavioral treatment for panic disorder. *journal of Consulting and Clinical Psychology, 65,* 178-183.

Newnham, E. A., Doyle, E. L., Sng, A. A.H., Hooke, G. R., & Page, A. C. (2012). Improving clinical outcomes in psychiatric care with touch-screen technology. *Psychological Services, 9,* 221-223.Noar, S. M., Black, H. G., & Pierce, L.B. (2009). Efficacy of computer technology­ based HIV prevention interventions: A meta-analysis. *AIDS, 23,* 107-115.

Norman, S. (2006). The use of telemedicine in *psychiatry.Journal of Psychiatric and Mental Health Nursing, 13,* 771-777.

Nundy, S., Dick,J.J., Chou, C.-H., Nocon, R. S., Chin, M.H, &Peek, M. E. (2014). Mobile phone diabetes project led to improved glycemic control and net savings for Chicago plan participants. *Health Affairs, 33,* 265-272.

Obermayer, J. L., Riley, W. T., Asif, 0., &Jean-Mary, J. (2004). College smoking-cessation using cell phone text messaging.Journal *ofAmerican College Health, 53(2),* 71-78.

Office of National Drug Control Policy. (2010). *National drug control strategy: 2010.*

Washington, DC: Office of National Drug Control Policy.

Office of National Drug Control Policy. (2013). *National drug control strategy: 2013.*

Washington, DC: Office of National Drug Control Policy.

Ohio Psychological Association. (2010). *Telepsychology guidelines.* Columbus, OH: Ohio Psychological Association.

Ondersma, S. **J.,** Chase, S. K., Svikis, D. S., & Schuster, C. R. (2005). Computer-based brief motivational intervention for perinatal drug use. *journal of Substance Abuse Treatment, 28,* 305- 312.

Ondersma, S. J., Svikis, D. S., & Schuster, C. R. (2007). Computer-based brief intervention a randomized trial with postpartum women. *American journal of Preventive Medicine, 32,* 231- 238.

Patrick, K., Raab, F., Adams, A. M., Dillon, L., Zabinski, M., Rock, L. C Norman, G. **J.**

(2009). A text message-based intervention for weight loss: Randomized controlled trial.

*journal of Medical Internet Research, 11,* el.

Pedrero-Perez, E.J., Rojo-Mota, G., Ruiz-Sanchez de Leon,}. M., Llanero-Luque, M., & Puerta-Garcia, C. (2011). [Cognitive remediation in addictions treatment]. *Revista de Neurologia, 52,* 163-172.

Pennebaker, J. W., Kiecolt-Glaser, **J.** K., & Glaser, R. (1988). Disclosure of traumas and immune function: Health implications for *psychotherapy.Journal of Consulting and Clinical Psychology, 56,* 239-245.

Pentland, A. S. (2004). Healthwear: Medical technology becomes wearable. *Computer, 37,* 4+42- 4+49.

Pew Research Center. (2012). *Internet adoption trend data: Adults.* Washington, DC: Pew Research Center.

Pew Research Center. (2013). *Health online 2013.* Washington, DC: Pew Research Center. Pew Research Center. (2014). *The Web at 25 in the US.* Washington, DC: Pew Research

Center.

Pew Research Center. (2015). *US. smartphone use in 2015.* Washington, DC: Pew Research Center.

Piette,}. D., Richardson, C., Himle,J., Duffy, S., Torres, T., Vogel, M Valenstein, M.

(2011). A randomized trial of telephonic counseling plus walking for depressed diabetes patients. *Medical Care, 49,* 641-648.

Pollard, R. Q, Dean, R. K., O'Hearn, A., & Haynes, S. L. (2009). Adapting health education material for deaf audiences. *Rehabilitation Psychology, 54,* 232-238.

Polosa, R., Russo, C., Di Maria, A., Arcidiacono, G., Morjaria, J.B., &Piccillo, G. A. (2009).

Feasibility of using e-mail counseling as part of a smoking-cessation program. *Respiratory Care, 54,* 1033-1039.

Postel, M. G., de Jong, C. A., & de Haan, H. A. (2005). Does e-therapy for problem drinking reach hidden populations? *Americanjournal of Psychiatry, 162,* 2393.

Primary Care Research Network. (2013). *Case Studies: Network support pays dividends.* London: Primary Care Research Network.

Qiiinn, C. C., Clough, S.S., Minor, J.M., Lender, D., Okafor, M. C., & Gruber-Baldini, A. (2008). WellDoc mobile diabetes management randomized controlled trial: Change in clinical and behavioral outcomes and patient and physician satisfaction. *Diabetes Technology* & *Therapeutics, 10,* 160-168.

Rabinowitz, T., Murphy, K. M., Amour, J. L., Ricci, M.A., Caputo, M. P., & Newhouse, P.A. (2010). Benefits of a telepsychiatry consultation service for rural nursing home residents. *journal ofTelemedicine and eHealth, 16 (1),* 34-40.

Racine, A. D., Alderman, E. M., &Avner,]. R. (2009). Effect of telephone calls from primary care practices on follow-up visits after pediatric emergency department visits: Evidence from the Pediatric Emergency Department Links to Primary Care (PEDLPC) randomized controlled trial. *Archives of Pediatrics and Adolescent Medicine, 163,* 505-511.

Ragusea, A. S., & VandeCreek, L. (2003). Suggestions for the ethical practice of online psychotherapy. *Psychotherapy: Theory, Research, Practice, Training, 40,* 94-102.

Ramo, D. E., Hall, S. M., & Prochaska, J. J. (2011). Reliability and validity of self-reported smoking in an anonymous online survey with young adults. *Health Psychology, 30,* 693-701.

Ramos-Rios, R., Mateos, R., Lojo, D., Conn, D. K., &Patterson, T. (2012).

Telepsychogeriatrics: A new horizon in the care of mental health problems in the elderly.

*International Psychogeriatrics, 24(11),* 1708-1724.

Recupero, P.R. (2008). Ethics of medical records and professional communications. *Child and Adolescent Psychiatric Clinics of North America, 17,* 37-51, viii.

Reese, R. J., Conoley, C. W., & Brossart, D. F. (2002). Effectiveness of telephone counseling: A field-based investigation. *journal of Counseling Psychology, 49,* 233-242.

Reese, R. J., Conoley, C. W., & Brossart, D. F. (2006). The attractiveness of telephone counseling: An empirical investigation of client perceptions. *journal of Counseling* & *Development, 84,* 54-60.

Regan, S., Reyen, M., Lockhart, A. C., Richards, A. E., &Rigotti, N. A. (2011). An interactive voice response system to continue a hospital-based smoking cessation intervention after discharge. *Nicotine and Tobacco Research, 13,* 255-260.

Revere, D., & Dunbar, P. J. (2001). Review of computer-generated outpatient health behavior interventions: Clinical encounters "in absentia." *journal of the American Medical Informatics Association, 8,* 62-79.

Rhodes, S. D., Hergenrather, K. C., Duncan, J., Vissman, A. T., Miller, C., Wilkin, A. M....

Eng, E. (2010). A pilot intervention utilizing Internet chat rooms to prevent HIV risk behaviors among men who have sex with men. *Public Health Reports, 125, Supplement 1,* 29- 37.

Richens, J., Copas, A., Sadiq, S. T., Kingori, P., McCarthy, 0., Jones, V Pakianathan, M.

(2010). A randomized controlled trial of computer-assisted interviewing in sexual health clinics. *Sexually Transmitted Infections, 86,* 310-314.

Rideout, V. **J.,** Foehr, U. G., & Roberts, D. F. (2010). *Generation M2 media in the lives of 8- to 18-year olds: A Kaiser Family Foundation study.* Menlo Park, CA: The Henry **J.** Kaiser Family Foundation.

Riley, W., Obermayer, J., &Jean-Mary, **J.** (2008). Internet and mobile phone text messaging intervention for college smokers. *journal ofAmerican College Health,* 57, 245-248.

Rimoldi, G., Lewis P., &Jampala, C. (2012). *Help at the hip: Increasing resiliency in high risk suicidal veterans through interactive text messaging.* New York: Veterans Health Administration.

Riper, H., Kramer, J., Smit, F., Conijn, B., Schippers, G., & Cuijpers, P. (2008). Web-based self-help for problem drinkers: A pragmatic randomized trial. *Addiction, 103,* 218-227.

Ritterband, L. M., & Tate, D. F. (2009). The science of internet interventions: Introduction.

*Annals of Behavioral Medicine, 38,* 1-3.

Rodgers, A., Corbett, T., Bramley, D., Riddell, T., Wills, M., Lin, R. B., &Jones, M. (2005). Do u smoke after txt? Results of a randomised trial of smoking cessation using mobile phone text messaging. *Tobacco Control, 14, 255-261.*

Rodriguez, M. D., Favela, J., Preciado, A., & Vizcaino, A. (2005). Agent-based ambient intelligence for healthcare. *AI Communications, 18,* 201-216.

Roker, D., &Coleman,]. (1997). Education and advice about illegal drugs: What do young people want? *Drugs-Education Prevention and Policy, 4,* 53-64.

Rotondi, A. J., Anderson, C. M., Haas, G. L., Eack, S. M., Spring, M. B., Ganguli, R. ...

Rosenstock, **J.** (2010). Web-based psychoeducational intervention for persons with schizophrenia and their supporters: One-year outcomes. *Psychiatric Services, 61,* 1099-1105.

Royal Australian & New Zealand College of Psychiatrists. (2009). *Telepsychiatry position statement (#44).* Melbourne, Australia: Royal Australian & New Zealand College of Psychiatrists.

Royal Australian & New Zealand College of Psychiatrists. (2011). *Telehealth: Brief guide to address practice issues.* Melbourne, Australia: Royal Australian & New Zealand College of Psychiatrists.

Saitz, R., Palfai, T. P., Freedner, N., Winter, M. R., MacDonald, A., Lu, **J.** DeJong, W.

(2007). Screening and brief intervention online for college students: The iHealth study.

*Alcohol and Alcoholism, 42,* 28-36.

Sands, D. Z. (2004). Help for physicians contemplating use of e-mail with *patients.journal of the American Medical Informatics Association, 11,* 268-269.

Schinke, S., Schwinn, T., & Cole, K. (2006). Preventing alcohol abuse among early adolescents through family and computer-based interventions: Four-year outcomes and mediating *variables.journal of Developmental and Physical Disabilities, 18,* 149-161.

Schinke, S. P., Schwinn, T. M., Di Noia, J., & Cole, K. C. (2004). Reducing the risks of alcohol

use among urban youth: Three-year effects of a computer-based intervention with and without parent *involvement.Journalof Studies on Alcohol, 65,* 443-449.

Schinke, S. P., Schwinn, T. M., & Ozanian, A. J. (2005). Alcohol abuse prevention among high-risk youth: Computer-based *intervention.journal of Prevention* & *Intervention in the Community, 29,* 117-130.

Screening for Mental Health, Inc. (2012). *National Depression Screening Day®: October 11, 2012.*

Wellesley Hills, MA: Screening for Mental Health, Inc.

Secure Telehealth. (2012). *Medicaid reimburses for telepsychiatry in 40 states.* Pittsburgh, PA: Secure T elehealth.

Segal, Z. V., Williams, J.M. G., & Teasdale, J. D. (2002). *Mincifulness-based cognitive therapy for depression: A new approach to preventing relapse.* New York: Guilford Press.

Selby, P., van Mierlo, T., Voci, S. C., Parent, D., & Cunningham, J. A. (2010). Online social and professional support for smokers trying to quit: An exploration of first time posts from 2562 *members.journal of Medical Internet Research, 12,* e34.

Selmi, P. M., Klein, M. H., Greist,]. H., Sorrell, S. P., &Erdman, H.P. (1990). Computer­ administered cognitive-behavioral therapy for depression. *American journal of Psychiatry, 147,* 51-56.

Selmi, P. M., Klein, M. H., Greist,]. H., Sorrell, S. P., &Erdman, H.P. (1991). Computer­ administered therapy for depression. *MD Computing, 8,* 98-102.

Shapiro, J. R., Bauer, S., Hamer, R. M., Kordy, H., Ward, D., & Bulik, C. M. (2008). Use of text messaging for monitoring sugar-sweetened beverages, physical activity, and screen time in children: A pilot *study.Journal oJNutrition Education and Behavior, 40,* 385-391.

Sharp, I. R., Kobak, K. A., & Osman, D. A. (2011). The use of videoconferencing with patients with psychosis: A review of the literature. *Annals of General Psychiatry, 10,* 14.

Shiffman, S. (2009). Ecological momentary assessment (EMA) in studies of substance use.

*Psychological Assessment, 21,* 486-497.

Shore,]. H., Brooks, E., Anderson, H., Bair, B., Dailey, N., Kaufmann, L.J., &Manson, S. (2012). Characteristics of telemental health service use by American Indian veterans.

*Psychiatric Services, 63(2),* 179-181.

Shore,]. H., Savin, D. M., Novins, D., &Manson, S. M. (2006). Cultural aspects of telepsychiatry. *journal ofTelemedicine* & *Telecare. 12(3),* 116-121.

Shore, J. H., Savin, D., Orton, H., Beals, J., & Manson, S. M. (2007). Diagnostic reliability of telepsychiatry in American Indian veterans. *American journal of Psychiatry, 164(1),* 115-118.

Silverman, K., Wong, C. J., Grabinski, M. J., Hampton, J., Sylvest, C. E., Dillon, E. M., & Wentland, R. D. (2005). A web-based therapeutic workplace for the treatment of drug addiction and chronic unemployment. *Behavior Modification, 29,* 417-463.

Simon, G. E., Ralston, J. D., Savarino, J., Pabiniak, C., Wentzel, C., & Operskalski, B. H. (2011). Randomized trial of depression follow-up care by online *messaging.Journal of General Internal Medicine, 26(7),* 698-704.

Simpson, S., & Morrow, E. (2010). Using videoconferencing for conducting a therapeutic relationship. In K. Anthony, D. M. Nagel, & S. Goss (Eds.), *The use of technology in mental health: Applications, ethics and practice* (pp. 94-103). Springfield, IL: Charles C. Thomas Publishers.

Sloan, D. M., Gallagher, M. W., Feinstein, B. A., Lee, D. J., & Pruneau, G. M. (2011).

Efficacy of telehealth treatments for posttraumatic stress-related symptoms: A meta-analysis.

*Cognitive Behaviour Therapy, 40,* 111-125.

Smith, A. (2010). *Home broadband 2010.* Washington, DC: Pew Research Center.

Smith, B., Harms, W. D., Korda, H., Rosen, H., Davis, J., Burres, S. (in press). Enhancing behavioral health treatment and crisis management through mobile ecological momentary assessment and SMS messaging. *Health Informatics journal.*

Smith, A., Rainie, L., & Zickuhr, K. (2011). *College students and technology.* Washington, DC: Pew Internet and American Life Project.

Spek, V., Nyklicek, I., Cuijpers, P., & Pop, V. (2008). Predictors of outcome of group and internet-based cognitive behavior therapy. *journal of Affective Disorders, 105,* 137-14*5.*

Stamm, B. H. (1998). Clinical applications of telehealth in mental health care. *Professional Psychology: Research and Practice, 29,* 536-542.

Stofle, **G. S.** (2001). Addiction treatment online. *Behavioral Health Management, 24, 53-55.*

Substance Abuse and Mental Health Services Administration. (2011a). *Addressing viral hepatitis in people with substance use disorders.* Treatment Improvement Protocol (TIP) Series 53. HHS Publication No. SMA 11-4656. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (20116). *Leading change: A plan for SAMHSA's roles and actions 2011-2014.* HHS Publication No. (SMA) 11-4629. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (2011c). *Managing chronic pain in adults with or in recovery.from substance use disorders.* Treatment Improvement Protocol (TIP) Series 54. HHS Publication No. SMA 11-4661. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (2012). *SAMHSA's working definition of recovery: 10 guiding principles of recovery.* HHS Publication No. (PEP) 12- RECDEF. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (2013a). *Addressing the specific behavioral health needs of men.* Treatment Improvement Protocol (TIP) Series *56.* HHS Publication No. SMA 13-4736. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (20136). *Behavioral health services for people who are homeless.* Treatment Improvement Protocol (TIP) Series *55.* HHS

Publication No. SMA 13-4734. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (2013c). *Coming soon: GO2AID* - *A mobile app far disaster responders.* Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (2014a). *Improving cultural competence.* Treatment Improvement Protocol (TIP) Series *59.* (HHS Publication No. SMA 14-4849). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (20146). *Leading change 2.0: Advancing the behavioral health of the nation 2015-2018.* HHS Publication No. (PEP) 14- LEADCHANGE2. Rockville, MD Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (2014c). *Trauma-informed care in behavioral health services.* Treatment Improvement Protocol (TIP) Series *57.* HHS Publication No. SMA 14-4816. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (planned a). *Behavioral health services: Building health, wellness, and quality of life far sustained recovery.* Treatment Improvement Protocol (TIP) Series. Rockville, **MD:** Substance Abuse and Mental Health

Services Administration.

Substance Abuse and Mental Health Services Administration. (planned b). *Behavioral health services far American Indians and Alaska Natives.* Treatment Improvement Protocol (TIP) Series. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (planned c). *Managing anxiety symptoms in behavioral health services.* Treatment Improvement Protocol (TIP) Series.

Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (planned d). *Recovery in behavioral health services.* Treatment Improvement Protocol (TIP) Series. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (planned e). *Reintegration-related behavioral health issues in veterans and military families.* Treatment Improvement Protocol (TIP) Series. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration, Trauma and Justice Strategic Initiative. (2012). *SAMHSA's working definition of trauma and guidance far trauma-informed approach.* [Draft.] Rockville, MD: Substance Abuse and Mental Health Services Administration.

Suler, J. (2001). Assessing a person's suitability for online therapy: The ISMHO clinical case study group. *CyberPsychology* & *Behavior, 4,* 675-679.

Tasker, A. P., Gibson, L., Franklin, V., Gregor, P., & Greene, S. (2007). What is the frequency of symptomatic mild hypoglycemia in type 1 diabetes in the young?: Assessment by novel mobile phone technology and computer-based interviewing. *Pediatric Diabetes, 8,* 15-20.

Tate, D. F. (2011). A series of studies examining internet treatment of obesity to inform internet interventions for substance use and misuse. *Substance Use* & *Misuse, 46, 57-65.*

Tate, D. F., Finkelstein, E. A., Khavjou, 0., & Gustafson, A. (2009). Cost effectiveness of Internet interventions: Review and recommendations. *Annals of Behavioral Medicine, 38,* 40- 45.

Tate, D. F., & Zabinski, M. F. (2004). Computer and internet applications for psychological treatment: Update for clinicians. *journal of Clinical Psychology, 60,* 209-220.

Taylor, C. B., & Luce, K. H. (2003). Computer- and internet-based psychotherapy interventions. *Current Directions in Psychological Science, 12,* 18-22.

Te Poel, F., Bolman, C., Reubsaet, A., & de Vries, H. (2009). Efficacy of a single computer­ tailored e-mail for smoking cessation: Results after 6 months. *Health Education Research, 24,* 930-940.

Titov, N., Andrews, G., Robinson, E., Schwencke, G., Johnston, L., Solley, K., & Choi, I. (2009). Clinician-assisted internet-based treatment is effective for generalized anxiety disorder: Randomized controlled trial. *Australian and New Zealand journal of Psychiatry, 43,* 905-912.

Treatment Research Institute (2010). *Integrating appropriate services for substance use conditions in health care settings: An issue brief on lessons learned and challenges ahead. Forum on Integration: Collaborative for States.* Philadelphia: Treatment Research Institute.

Tse, M. M., Choi, K. C., & Leung, R. S. (2008). E-health for older people: The use of technology in health promotion. *Cyberpsychology and Behavior, 11,* 475-479.

U.S. Department of Health and Human Services. (2006). *HIPM security guidance.* Washington, DC: U.S. Department of Health and Human Services.

U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services. (2012). Telehealth services. In *Rural health fact sheets series* (Rep. No. ICN 901705). Washington, DC: U.S. Department of Health and Human Services.

U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services. (2013). Expansion of Medicare telehealth services for calendar year (CY) 2013. In *MLN Matters* (Rep. No. MM7900 Revised). Washington, DC: U.S. Department of Health and Human Services.

U.S. Department of Health and Human Services, Office of the Secretary. (2013). *Modifications to the HIPM privacy, security, enforcement, and breach notification rules under the Health Information Technology for Economic and Clinical Health Act and the Genetic Information Nondiscrimination Act; Other modifications to the HIPM rules; Final rule.* Rockville, MD: U.S. Department of Health and Human Services.

U.S. Food and Drug Administration. (2011). *Mobile medical applications.* Silver Spring, MD:

U.S. Food and Drug Administration.

U.S. Food and Drug Administration. (2014). *Examples of mobile apps for which the FDA will exercise enforcement discretion.* Silver Spring, MD: U.S. Food and Drug Administration.

U.S. Food and Drug Administration, Center for Devices and Radiological Health & Center for Biologics Evaluation and Research. (2013). *Mobile medical applications: Guidance for industry and Food and Drug Administration staff* Silver Spring, MD: U.S. Food and Drug Administration, Center for Devices and Radiological Health & Center for Biologics Evaluation and Research.

Vaca, F. E., Winn, D., Anderson, C. L., Kim, D., &Arcila, M. (2011). Six-month follow-up of computerized alcohol screening, brief intervention, and referral to treatment in the emergency department. *Substance Abuse, 32,* 144-152.

Vaccaro, N., & Lambie, **G. W.** (2007). Computer-based counselor-in-training supervision: Ethical and practical implications for counselor educators and supervisors. *Counselor Education and Supervision, 47,* 46-57.

Valentine, P. V., & Smith, T. E. (2001). Evaluating Traumatic Incident Reduction (TIR) therapy with female inmates: A randomized controlled clinical trial. *Research on Social Work Practice, 11 (1),* 40-52.

Vernmark, K., Lenndin, J., Bjarehed, J., Carlsson, M., Karlsson, J., Oberg, J. ... Andersson, G. (2010). Internet administered guided self-help versus individualized e-mail therapy: A randomized trial of two versions of CBT for major depression. *Behaviour Research and Therapy, 48(5),* 368-376.

Vilella, A., Bayas, J. M., Diaz, M. T., Guinovart, C., Diez, C., Simo, D Cerezo, J. (2004). The

role of mobile phones in improving vaccination rates in travelers. *Preventive Medicine, 38,* 503- 509.

Walters, S. T., Miller, E., & Chiauzzi, E. (2005). Wired for wellness: e-lnterventions for addressing college *drinking.Journal of Substance Abuse Treatment, 29,* 139-145.

Wantland, D. J., Portillo, C. J., Holzemer, W. L., Slaughter, R., &McGhee, E. M. (2004). The effectiveness of web-based vs. non-web-based interventions: A meta-analysis of behavioral

change outcomes. *journal of Medical Internet Research, 6,* e40.

Watson, A., Bickmore, T., Cange, A., Kulshreshtha, A., & Kvedar, J. (2012). An internet-based virtual coach to promote physical activity adherence in overweight adults: Randomized controlled trial. *journal of Medical Internet Research, 14,* el.

Webb, T. L.,Joseph,J., Yardley, L., &Michie, S. (2010). Using the internet to promote health behavior change: A systematic review and meta-analysis of the impact of theoretical basis, use of behavior change techniques, and mode of delivery on *efficacy.Journal of Medical Internet*

*Research, 12,* e4.

Wei, J., Hollin, I., & Kachnowski, S. (2011). A review of the use of mobile phone text messaging in clinical and healthy behavior interventions. *journal of Telemedicine and Telecare, 17,* 41-48.

Weingardt, K. R., Cucciare, M.A., Bellotti, C., & Lai, W. P. (2009). A randomized trial comparing two models of web-based training in cognitive-behavioral therapy for substance abuse *counselors.journal of Substance Abuse Treatment, 37,* 219-227.

Weingardt, K. R., Villafranca, S. W., & Levin, C. (2006). Technology-based training in cognitive behavioral therapy for substance abuse counselors. *Substance Abuse, 27,* 19-25.

Weiser, M. (1991). The computer for the 21st-century. *Scientific American, 265,* 94-104.

Weitzel,]. A., Bernhardt,]. M., Usdan, S., Mays, D., &Glanz, K. (2007). Using wireless handheld computers and tailored text messaging to reduce negative consequences of drinking *alcohol.journalof Studies on Alcohol and Drugs, 68,* 534-537.

White, A., Kavanagh, D., Stallman, H., Klein, B., Kay-Lambkin, F., Proudfoot,]. ... Young, R. (2010). Online alcohol interventions: A systematic *review.journal of Medical Internet Research, 12,* e62.

Whittaker, R., Borland, R., Bullen, C., Lin, R. B., McRobbie, H., & Rodgers, A. (2009).

Mobile phone-based interventions for smoking cessation. *Cochrane Database System Review,*

CD006611.

Winkler, M., Flanagin, A., Chi-Lum, B., White,]., Andrews, K., Kennett, R., DeAngelis, C., &Musacchio, R. (2000). Guidelines for medical and health information sites on the internet. *journal of the American Medical Association, 283(12),* 1600-1606.

Wisdom, J.P., Ford II, J. H., & McCarty, D. (2010). The use of health information technology in publicly-funded U. S. substance abuse treatment agencies. *Contemporary Drug Problems: An Interdisciplinary Quarterly, 37,* 315-339.

Wise, P.H., Dowlatshahi, D. C., Farrant, S., Fromson, S., &Meadows, K. A. (1986). Effect of computer-based learning on diabetes knowledge and control. *Diabetes Care, 9,* 504-508.

Wood, J. A. V., Miller, T. W., & Hargrove, D.S. (2005). Clinical supervision in rural settings: A telehealth model. *Professional Psychology: Research and Practice, 36,* 173-179.

Yellowlees, P., Burke, M. M., Marks, S. L., Hilty, D. M., & Shore, J. H. (2008). Emergency

*telepsychiatry.journal ofTelemedicine and Telecare, 14,* 277-281.

# Appendix B-Stakeholders Meeting Participants

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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# Appendix A-Bibliography

Abbass, A., Arthey, S., Elliott, J., Fedak, T., Nowoweiski, D., Markovski, J., & Nowoweiski, S. (2011). Web-conference supervision for advanced psychotherapy training: A practical guide. *Psychotherapy, 48,* 109-118.

Abbott, J. A., Klein, B., & Ciechomski, L. (2008). Best practices in online *therapy.Journal of*

*Technology in Human Services, 26,* 360-375.

Alemi, F., Haack, M. R., Nemes, S., Aughburns, R., Sinkule, J., & Neuhauser, D. (2007).

Therapeutic emails. *Substance Abuse Treatment, Prevention, and Policy, 2.*

American Counseling Association. (2005). *ACA code of ethics.* Alexandria, VA: American Counseling Association.

American Medical Association. (2000). *Guidelines for patient-physician electronic mail.* Chicago: American Medical Association.

American Mental Health Counselors Association. (2000). *Code of ethics of the American Mental Health Counselors Association.* Alexandria, VA: American Mental Health Counselors Association.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders,* 5th ed. Arlington, VA: American Psychiatric Association.

American Psychological Association. (1997). *APA statement on services by telephone, teleconferencing, and internet: A statement by the Ethics Committee of the American Psychological Association.* Washington, DC: American Psychological Association.

American Psychological Association. (2010). *Ethical principles ofpsychologists and code of conduct.*

Washington, DC: American Psychological Association.

American Psychological Association. (2012). *New generation of virtual humans helping to train psychologists.* Washington, **DC:** American Psychological Association.

American Telemedicine Association. (2009a). *Evidence-based practice for telemental health.*

Washington, DC: American Telemedicine Association.

American Telemedicine Association. (20096). *Practice guidelines for videoconferencing-based telemental health.* Washington, DC: American Telemedicine Association.

American Telemedicine Association. (2010). *US states.* Washington, DC: American Telemedicine Association.

Andersson, G., Carlbring, P., Berger, T., Almlov, J., & Cuijpers, P. (2009). What makes internet therapy work? *Cognitive Behaviour Therapy,* l.

Andersson, G., Carlbring, P., & Grimlund, A. (2008). Predicting treatment outcome in internet versus face to face treatment of panic disorder. *Computers in Human Behavior, 24,* 1790-1801.

Andersson, G., & Cuijpers, P. (2009). Internet-based and other computerized psychological treatments for adult depression: A meta-analysis. *Cognitive Behaviour Therapy, 38,* 196-205.

Andre, B., Ringdal, G. I., Loge, J. H., Rannestad, T., & Kaasa, S. (2008). The importance of key personnel and active management for successful implementation of computer-based technology in palliative care: Results from a qualitative study. *CIN* - *Computers Informatics Nursing, 26,* 183-189.

Anthony, K. and Jamison, A. (2005). *Guidelines for online counselling* & *psychotherapy, including guidelines for online supervision* (2nd edition). Lutterworth, England: British Association for Counselling and Psychotherapy.

Anthony, K., Nagel, D. M., & Goss, S. (2010). *The use of technology in mental health: Applications, ethics and practice.* Springfield, IL: Charles C. Thomas Publishers.

APA Practice Organization. (2011). *Reimbursement for telehealth services.* Washington, DC: APA Practice Central.

Aronson, I. D., Plass, J. L., & Bania, T. C. (2012). Optimizing educational video through comparative trials in clinical environments. *Educational Technology Research and Development, 60,* 469-482.

Association of Canadian Psychology Regulatory Organizations (2011). *Model standards for telepsychology service delivery.* Toronto, Canada: Association of Canadian Psychology Regulatory Organizations.

Aukstakalnis, S., & Blattner, D. (1992). *Silicon mirage: The art and science of virtual reality.*

Berkeley, CA: Peachpit Press.

Australian Psychological Society. (2004). *Guidelines for providing psychological services and products on the internet.* Melbourne, Australia: Australian Psychological Society.

Backhaus, A., Agha, Z., Maglione, M. L., Repp, A., Ross, B., Zuest, D Thorp, S. R. (2012).

Videoconferencing psychotherapy: A systematic review. *Psychological Services, 9,* 111-131.

Barak, A., Boneh, 0., & Dolev-Cohen, M. (2010). Factors underlying participants' gains in online support groups. In A. Blachnio, A. Przepiorka, & T. Rowinski (Eds.), *Internet in psychological research* (pp. 17-38). Warsaw, Poland: Cardinal Stefan Wyszynski University Press.

Barak, A., Boniel-Nissim, M., & Suler, J. (2008). Fostering empowerment in online support groups. *Computers in Human Behavior, 24,* 1867-1883.

Barak, A., Hen, L., Boniel-Nissim, M., & Shapira, N. (2008). A comprehensive review and a meta-analysis of the effectiveness of internet-based psychotherapeutic interventions. *journal of Technology in Human Services, 26,* 109-160.

Barak, A., Klein, B., & Proudfoot, J. G. (2009). Defining internet-supported therapeutic interventions. *Annals of Behavioral Medicine, 38,* 4-17.

Barak, A., Meyran, B., &John, S. (2008). Fostering empowerment in online support groups.

*Computers in Human Behavior, 24,* 1867-1883.

Barak, A., & Wander-Schwartz, M. (2000). Empirical evaluation of brief group therapy conducted in an internet chat *room.journal of Virtual Environments,* 5(1).

Barlow, J. H., Ellard, D. R., Hainsworth, J. M., Jones, F. R., & Fisher, A. (2005). A review of self-management interventions for panic disorders, phobias and obsessive-compulsive disorders. *Acta Psychiatrica Scandinavica, 111,* 272-285.

Barnett, J. E. (2011). Utilizing technological innovations to enhance psychotherapy supervision, training, and outcomes. *Psychotherapy, 48,* 103-108.

Barnett, N.P., Tidey, J., Murphy, J.G., Swift, R., & Colby, S.M. (2011). Contingency management for alcohol use reduction: A pilot study using a transdermal alcohol sensor. *Drug and Alcohol Dependence, 118,* 391-399.

Barnwell, S. V., Juretic, M.A., Hoerster, K. D., Van de Plasch, R., & Felker, B. L. (2012). VA Puget Sound Telemental Health Service to rural veterans: A growing program. *Psychological Services, 9,* 209-211.

Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression.* New York: Guilford Press.

Ben-Zeev, D., Brenner, C.J., Begale, M., Duffecy,J., Mohr, D.C., &Mueser, K.T. (2014).

Feasibility, acceptability, and preliminary efficacy of a smartphone intervention for schizophrenia. *Schizophrenia Bulletin.* Lebanon, NH: Dartmouth Psychiatric Research Center.

Ben-Zeev, D., McHugo, G. J., Xie, H., Dobbins, K., & Young, M.A. (2012). Comparing retrospective reports to real-time/real-place mobile assessment in individuals with schizophrenia and a nonclinical comparison group. *Schizophrenia Bulletin, 38,* 396-404.

Bickel, W. K., Marsch, L.A., Buchhalter, A. R., & Badger, G. J. (2008). Computerized behavior therapy for opioid-dependent outpatients: A randomized controlled trial.

*Experimental and Clinical Psychopharmacology, 16,* 132-143.

Bickel, W. K., Marsch, L. A., & Budney, A. J. (2013). Technology-delivered treatments for substance use disorders: Current status and future directions. In P. M. Miller (Ed.), *Interventions far Addiction: Comprehensive Addictive Behaviors and Disorders, Volume 3* (pp. 275-285). Oxford, England: Elsevier Limited.

Billings, G. (2012). *Michigan becomes 15th state to pass private payer telehealth reimbursement.*

Washington, DC: Center for Telehealth and e-Health Law.

Blankers, M., Koeter, M. W. J., & Schippers, G. M. (2011). Internet therapy versus internet self-help versus no treatment for problematic alcohol use: A randomized controlled trial. *journal of Consulting and Clinical Psychology, 79,* 330-341.

Bopp, J.M., Miklowitz, D. J., Goodwin, G. M., Stevens, W., Rendell, J.M., & Geddes, J. R. (2010). The longitudinal course of bipolar disorder as revealed through weekly text messaging: a feasibility study. *Bipolar Disorders, 12,* 327-334.

Bowman, D. (2012). *Telemedicine bill enables VA providers to practice across state lines.*

Washington, DC: Fierce Markets.

Boyer, E.W., Smelson, D., Fletcher, R., Ziedonis, D., & Picard, R. W. (2010). Wireless

technologies, ubiquitous computing and mobile health: Application to drug abuse treatment and compliance with HIV *therapies.journal of Medical Toxicology, 6,* 212-216.

Brendryen, H., Drozd, F., & Kraft, P. (2008). A digital smoking cessation program delivered through internet and cell phone without nicotine replacement (happy ending): Randomized controlled trial. *journal of Medical Internet Research, 10,* e51.

Brendryen, H., & Kraft, P. (2008). Happy ending: A randomized controlled trial of a digital multi-media smoking cessation intervention. *Addiction, 103,* 478-484.

Brenes, G. A., Ingram, C. W., & Danhauer, S. C. (2012). Telephone-delivered psychotherapy for late-life anxiety. *Psychological Services, 9,* 219-220.

Brennan Jr.,}. M. (2013). *Using virtual reality to improve resilience.* Gahanna, OH: The National Psychologist.

British Psychological Society. (2009). *The provision of psychological services via the internet and other non-direct means.* Leicester, England: British Psychological Society.

Broadband Adoption Act of 2015, S.1472, 114th Cong. (2015).

Brunette, M. F., Ferron, J.C., McHugo, G. J., Davis, K. E., Devitt, T. S., ... Drake, R. E. (2011). An electronic decision support system to motivate people with severe mental illnesses to quit smoking. *Psychiatric Services, 62,* 360-366.

Buglione, S. A., DeVito, A. J., &Mulloy, J.M. (1990). Traditional group therapy and computer-administered treatment for test anxiety. *Anxiety Research, 3,* 33-39.

Bunz, U. (2004). The computer-email-web (CEW) fluency scale - Development and validation.

*Internationaljournal of Human-Computer Interaction, 17,* 479-506.

Burleson, J. A., & Kaminer, Y. (2007). Aftercare for adolescent alcohol use disorder: Feasibility and acceptability of a phone intervention. *TheAmericanjournal on Addictions, 16,* 202-205.

Byrne, A. M., & Hartley, M. T. (2010). Digital technology in the 21st century: Considerations for clinical supervision in rehabilitation education. *Rehabilitation Education, 24,* 57-68.

California Telemedicine & eHealth Center. (2006). *Telemedicine reimbursement handbook.*

Sacramento, CA: California Telemedicine & eHealth Center.

Campbell, A. N. C., Nunes, E. V., Mathews, A.G., Stitzer, M., Miele, G. M., Polsky, D....

Goldman, B. (2014). Internet-delivered treatment for substance abuse: A multisite randomized controlled trial. *American journal of Psychiatry, 171 (6),* 683-690.

Canadian Psychological Association. (2006). *Ethical guidelines for psychologists providing psychological services via electronic media.* Ottawa, Canada: Canadian Psychological Society.

Capezza, N. M., & Najavits, L. M. (2012). Rates of trauma-informed counseling at substance abuse treatment facilities: Reports from over 10,000 programs. *Psychiatric Services, 63,* 390- 394.

Carise, D., Gurel, 0., McLellan, A. T., Dugosh, K., & Kendig, C. (2005). Getting patients the services they need using a computer-assisted system for patient assessment and referral­ CASPAR. *Drug and Alcohol Dependence, 80,* 177-189.

Carr, A. C., Ghosh, A., &Marks, I. M. (1988). Computer-supervised exposure treatment for phobias. *Canadianjournal of Psychiatry, 33,* 112-117.

Carroll, K. M., Ball, S. A., Martino, S., Nich, C., Babuscio, T. A., Nuro, K. F Rounsaville,

1. J. (2008). Computer-assisted delivery of cognitive-behavioral therapy for addiction: A randomized trial ofCBT4CBT. *TheAmericanjournalof Psychiatry, 165,* 881-888.

Carroll, K. M., Kiluk, B. D., Nich, C., Gordon, M.A., Portnoy, G. A., Marino, D.R., &Ball,

S.A. (2014). Computer-assisted delivery of cognitive-behavioral therapy: Efficacy and durability of CBT 4CBT among cocaine-dependent individuals maintained on methadone. *American journal of Psychiatry, 171 (4),* 436-444.

Carroll, K. M., Nich, C., & Ball, S. A. (2005). Practice makes progress? Homework assignments and outcome in treatment of cocaine dependence. *journal of Consulting and Clinical Psychology, 73,* 749-755.

Carroll, K. M., & Rounsaville, B. J. (2010). Computer-assisted therapy in psychiatry: Be brave­ it's a new world. *Current Psychiatry Reports, 12,* 426-432.

Center for Substance Abuse Treatment. (1993a). *Improving treatment for drug-exposed infants.* Treatment Improvement Protocol (TIP) Series *5.* HHS Publication No. SMA) *95-3057.* Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (19936). *Pregnant, substance-using women.* Treatment Improvement Protocol (TIP) Series 2. HHS Publication No. (SMA) 93-1998. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1993c). *Screeningfor infectious diseases among substance abusers.* Treatment Improvement Protocol (TIP) Series 6. HHS Publication No. (SMA) *95-* 3060. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1994). *Simple screening instruments for outreach for alcohol and other drug abuse and infectious diseases.* Treatment Improvement Protocol (TIP) Series 11. HHS Publication No. (SMA) 94-2094). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (199*5*a). *Alcohol and other drug screening of hospitalized trauma patients.* Treatment Improvement Protocol (TIP) Series 16. HHS Publication No. (SMA) 95-3041. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (19956). *Combining alcohol and other drug treatment with diversion for juveniles in the justice system.* Treatment Improvement Protocol (TIP) Series 21.

(HHS Publication No. (SMA) 95-3051). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1995c). *Developing state outcomes monitoring systems for alcohol and other drug abuse treatment.* Treatment Improvement Protocol (TIP) Series 14.

HHS Publication No. (SMA) 95-3031. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1995d). *The role and current status ofpatient placement criteria in the treatment of substance use disorders.* Treatment Improvement Protocol (TIP) Series 13. HHS Publication No. (SMA) 95-3021. Rockville, MD: Substance Abuse and

Mental Health Services Administration.

Center for Substance Abuse Treatment. (1995e). *The tuberculosis epidemic: Legal and ethical issues for alcohol and other drug abuse treatment providers.* Treatment Improvement Protocol (TIP) Series 18. HHS Publication No. (SMA) 95-3047. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1996). *Treatment drug courts: Integrating substance abuse treatment with legal case processing.* Treatment Improvement Protocol (TIP) Series 23. HHS Publication No. (SMA) 96-3113. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1997a). *A guide to substance abuse services for primary care clinicians.* Treatment Improvement Protocol (TIP) Series 24. HHS Publication No. (SMA) 97-3139. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (19976). *Substance abuse treatment and domestic violence.* Treatment Improvement Protocol (TIP) Series *25.* HHS Publication No. (SMA) 97-3163. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1998a). *Comprehensive case management for substance abuse treatment.* Treatment Improvement Protocol (TIP) Series 27. HHS Publication No. (SMA) 98-3222. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (19986). *Continuity of offender treatment for substance use disorders from institution to community.* Treatment Improvement Protocol (TIP) Series 30.

HHS Publication No. (SMA) 98-3245. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1998c). *Naltrexone and alcoholism treatment.* Treatment Improvement Protocol (TIP) Series 28. HHS Publication No. (SMA) 98-3206. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1998d). *Substance abuse among older adults.* Treatment Improvement Protocol (TIP) Series 26. HHS Publication No. (SMA) 98-3179. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1998e). *Substance use disorder treatment for people with physical and cognitive disabilities.* Treatment Improvement Protocol (TIP) Series 29. HHS

Publication No. (SMA) 98-3249. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1999a). *Brief interventions and brief therapies for substance abuse.* Treatment Improvement Protocol (TIP) Series 34. HHS Publication No. (SMA) 99-3353. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (19996). *Enhancing motivation for change in substance abuse treatment.* Treatment Improvement Protocol (TIP) Series *35.* HHS Publication No. (SMA) 99-3354. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1999c). *Screening and assessing adolescents for substance use disorders.* Treatment Improvement Protocol (TIP) Series 31. HHS Publication No. (SMA) 99-3282. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1999d). *Treatment for stimulant use disorders.* Treatment Improvement Protocol (TIP) Series 33. HHS Publication No. (SMA) 99-3296. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (1999e). *Treatment of adolescents with substance use disorders.* Treatment Improvement Protocol (TIP) Series 32. HHS Publication No. (SMA) 99-3283. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2000a). *Integrating substance abuse treatment and vocational services.* Treatment Improvement Protocol (TIP) Series 38. HHS Publication No. (SMA) 00-3470. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (20006). *Substance abuse treatment for persons with child abuse and neglect issues.* Treatment Improvement Protocol (TIP) Series 36. HHS Publication No. (SMA) 00-3357. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2000c). *Substance abuse treatment for persons with HIV/AIDS.* Treatment Improvement Protocol (TIP) Series 37. HHS Publication No. (SMA) 00-3459. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2004a). *Clinical guidelines for the use of buprenorphine in the treatment of opioid addiction.* Treatment Improvement Protocol (TIP) Series 40. HHS Publication No. (SMA) 04-3939. Rockville, MD: Substance Abuse and Mental Health

Services Administration.

Center for Substance Abuse Treatment. (20046). *Substance abuse treatment and family therapy.* Treatment Improvement Protocol (TIP) Series 39. HHS Publication No. (SMA) 04-3957. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2004c). *The coefzdentiality of alcohol and drug abuse patient records regulation and the HIP AA Privacy Rule: Implications for alcohol and substance abuse*

*programs.* HHS Publication No. (SMA) 04-3947. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2005a). *Medication-assisted treatment for opioid addiction.* Treatment Improvement Protocol (TIP) Series 43. HHS Publication No. (SMA) 05-4048. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (20056). *Substance abuse treatment for adults in the criminal justice system.* Treatment Improvement Protocol (TIP) Series 44. HHS Publication No. (SMA) 05-4056. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2005c). *Substance abuse treatment for persons with co­ occurring disorders.* Treatment Improvement Protocol (TIP) Series 42. HHS Publication No. SMA 05-3992. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2005d). *Substance abuse treatment: Group therapy.*

Treatment Improvement Protocol (TIP) Series 41. HHS Publication No. SMA 05-4056. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2006a). *Detoxification and substance abuse treatment.* Treatment Improvement Protocol (TIP) Series *45.* HHS Publication No. SMA 06-4131. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (20066). *Substance abuse: Administrative issues in intensive outpatient treatment.* Treatment Improvement Protocol (TIP) Series 46. HHS Publication No. SMA 06-4151. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2006c). *Substance abuse: Clinical issues in intensive outpatient treatment.* Treatment Improvement Protocol (TIP) Series 47. HHS Publication No. SMA 06-4182. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2008). *Managing depressive symptoms in substance abuse clients during early recovery.* Treatment Improvement Protocol (TIP) Series 48. HHS Publication No. SMA 08-4353. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2009a). *Addressing suicidal thoughts and behaviors in substance abuse treatment.* Treatment Improvement Protocol (TIP) Series *50.* HHS Publication No. SMA 09-4381. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (20096). *Clinical supervision and the professional development of the substance abuse counselor.* Treatment Improvement Protocol (TIP) Series *52.* HHS Publication No. SMA 09-4435. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2009c). *Considerations for the provision of e-therapy.*

HHS Publication No. SMA 09-4450. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2009d). *Incorporating alcohol pharmacotherapies into medical practice.* Treatment Improvement Protocol (TIP) Series 49. HHS Publication No. SMA 09-4380. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Substance Abuse Treatment. (2009e). *Substance abuse treatment: Addressing the specific needs of women.* Treatment Improvement Protocol (TIP) Series 51. HHS Publication No.

SMA 09-4426. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Center for Technology and Aging. (2010). *Medication optimization.* Oakland, CA: Center for Technology and Aging.

Chambers, M., Connors, S. L., & McElhinney, S. (2005). Substance use and young people: The potential of technology. *journal of Psychiatric and Mental Health Nursing, 12,* 179-186.

Chambless, D. L., & Hollon, S. D. (1998). Defining empirically supported therapies. *journal of Consulting and Clinical Psychology, 66,* 7-18.

Chandler, G. M., Burck, H., Sampson, J.P., &Wray, R. (1988). The effectiveness of a generic computer program for systematic desensitization. *Computers in Human Behavior, 4,* 339-346.

Chen, Z. W., Fang, L. Z., Chen, L. Y., & Dai, H. L. (2008). Comparison of an SMS text messaging and phone reminder to improve attendance at a health promotion center: A randomized controlled *trial.journal of Zhejiang University Science B, 9,* 34-38.

Chiauzzi, E., Brevard, J., Thurn, C., Decembrele, S., & Lord, S. (2008). MyStudentBody-stress: An online stress management intervention for college students. *journal of Health Communication, 13, 555-572.*

Chiauzzi, E., Green, T. C., Lord, S., Thum, C., & Goldstein, M. (2005). My student body: A high-risk drinking prevention web site for college *students.journal of American College Health, 53,* 263-274.

Cho, J. H., Lee, H. C., Lim, D. J., Kwon, H. S., & Yoon, K. H. (2009). Mobile communication using a mobile phone with a glucometer for glucose control in Type 2 patients with diabetes: as effective as an internet-based glucose monitoring system. *journal of Telemedicine and Telecare, 15,* 77-82.

Choudhury, T., Consalvo, S., Harrison, B., LaMarca, A., LeGrand, L., Rahimi, A Haehnel,

D. (2008). The mobile sensing platform: An embedded activity recognition system. *IEEE*

*Pervasive Computing,* 7, 32-41.

Chung-Do,]., Helm, S., Fukuda, M., Alicata, D., Nishimura, S., &Else, I. (2012). Rural mental health: Implications for telepsychiatry in clinical service, workforce development, and organizational *capacity.Journal ofTelemedicine and eHealth, 18* (3), 244-246.

Cole-Lewis, H., & Kershaw, T. (2010). Text messaging as a tool for behavior change in disease prevention management. *Epidemiology Review, 32,* 56-69.

Collins, F. (2012). How to fulfill the true promise of "mHealth". *Scientific American, 307,* 16.

Consalvo, S., Landay, J. A., &McDonald, D. W. (2009). Designing for behavior change in everyday life. *Computer, 42,* 86-89.

Cuijpers, P., Marks, I. M., van Straten, A., Cavanagh, K., Gega, L., &Andersson, G. (2009).

Computer-aided psychotherapy for anxiety disorders: A meta-analytic review. *Cognitive Behaviour Therapy, 38,* 66-82.

Dallery, J., & Glenn, I. M. (2005). Effects of an Internet-based voucher reinforcement program for smoking abstinence: A feasibility *study.Journal ofApplied Behavior Analysis, 38,* 349-357.

Dallery, J., Glenn, I. M., & Raiff, B. R. (2007). An internet-based abstinence reinforcement treatment for cigarette smoking. *Drug and Alcohol Dependence, 86,* 230-238.

Danaher, B. G., McKay, H. G., & Seeley, J. R. (2005). The information architecture of behavior change *websites.journal of Medical Internet Research,* 7, el2.

Daoust, J.-P., Renaud, M., Bruyere, B., Lemieux, V., Fleury, G., & Najavits, L. M. (2012).

*Posttraumatic stress disorder and substance use disorder: Evaluation of the effectiveness of a*

*specialized clinic for French-Canadians based in a teaching hospital.* Retrieved October 7, 2013, from: <http://www.seekingsafety.org/3-03-06/studies.html#Men_and_women>

Day, X., & Schneider, P. L. (2002). Psychotherapy using distance technology: A comparison of face-to-face, video, and audio *treatment.Journal of Counseling Psychology, 49,* 499-503.

Derrig-Palumbo, K. (2010). Using chat and instant messaging (IM) to conduct a therapeutic relationship. In K. Anthony, D. M. Nagel, & S. Goss (Eds.), *The use of technology in mental health: Applications, ethics and practice* (pp. 15-28). Springfield, IL: Charles C. Thomas Publishers.

Des Jarlais, D. C., Paone, D., Milliken, J., Turner, C. F., Miller, H., Gribble, J. Friedman, S.

R. (1999). Audio-computer interviewing to measure risk behaviour for HIV among injecting drug users: A quasi-randomised trial. *The Lancet, 353,* 1657-1661.

Detweiler, M. B., Arif, S., Candelario, J., Altman, J., Murphy, P. F., Halling, M.

H.,... Detweiler, J. G. (2012). Salem VA MC-US Army Fort Bragg Warrior Transition Clinic telepsychiatry collaboration: 12-month operation clinical perspective. *journal of Telemedicine and eHealth, 18(2),* 81-86.

Digital Learning Equity Act of 2015, S.1606, 114th Cong. (2015).

Downer, S. R., Meara, J. G., Da Costa, A. C., & Sethuraman, K. (2006). SMS text messaging improves outpatient attendance. *Australian Health Review, 30,* 389-396.

Drake, R. E., & Bond, G. R. (2010). Implementing integrated mental health and substance abuse *services.journal of Dual Diagnosis, 6,* 251-262.

Duggan, M., Ellison, N. B., Lampe, C., Lenhart, A., &Madden, M. (2015). *Social media update 2014.* Washington, DC: Pew Research Center.

Eakin, E.G., Lawler, S. P., Vandelanotte, C., & Owen, N. (2007). Telephone interventions for physical activity and dietary behavior change: A systematic review. *American journal of Preventive Medicine, 32,* 419-434.

Egede, L. E., Frueh, C. B., Richardson, L. K., Acierno, R., Mauldin, P. D., Knapp, R. G., & Lejuez, C. (2009). Rationale and design: Telepsychology service delivery for depressed elderly veterans. *Trials, 10,* 22.

Elenko, E., Speier, A., & Zahar, D. (2015). A regulatory framework emerges for digital medicine. *Nature Biotechnology, 33,* 697-702.

Ellis, A., & Harper, R. A. (1975). *A new guide to rational living.* Oxford, England: Prentice­ Hall.

Emmelkamp, P. M. (2012). Attention bias modification: The emperor's new suit? *BMC Medicine, 10,* 63.

Ertin, E., Stohs, N., Kumar, S., Raijt, A., al Absi, M., & Shah, S. (2011). *Autosense: Unobtrusively wearable sensor suite for inferring the onset, causality, and consequences of stress in the field.* New York: Association for Computing Machinery.

Facebook. (2015). *Stats-Facebook newsroom.* Retrieved June 24, 2015, from: <http://newsroom.fb.com/company-info>

Farvolden, P., Cunningham, J., & Selby, P. (2009). Using e-health programs to overcome barriers to the effective treatment of mental health and addiction problems. *journal of Technology in Human Services, 27,* 5-22.

Favela, J., Tentori, M., & Gonzalez, V. M. (2010). Ecological validity and pervasiveness in the evaluation of ubiquitous computing technologies for health care. *International journal of Human-Computer Interaction, 26,* 414-444.

Federal Communications Commission. (2015). *FCC Chairman Wheeler seeks comment on modernizing lifeline to make 21st century broadband affordable for low-income households.* Washington, DC: Federal Communications Commission.

Federation of State Medical Boards of the United States (2002). *Model guidelines for the appropriate use of the internet in medical practice.* Euless, TX: Federation of State Medical Boards of the United States, Special Committee on Professional Conduct and Ethics.

Finfgeld-Connett, D., &Madsen, R. (2008). Web-based treatment of alcohol problems among rural women: Results of a randomized pilot investigation. *journal of Psychosocial Nursing and Mental Health Services, 46,* 46-53.

Foley, L., &Maddison, R. (2010). Use of active video games to increase physical activity in children: A (virtual) reality? *Pediatric Exercise Science, 22,* 7-20.

Forducey, P. G., Glueckauf, R. L., Bergquist, T. F., Maheu, M. M., & Yutsis, M. (2012).

Telehealth for persons with severe functional disabilities and their caregivers: Facilitating self­ care management in the home setting. *Psychological Services, 9,* 144-162.

Forman, R., Crits-Christoph, P., Kaynak, 0., Worley, M., Hantula, D. A., Kulaga, A....

Cawley, M. (2007). A feasibility study of a web-based performance improvement system for substance abuse treatment providers. *journal of Substance Abuse Treatment, 33,* 363-371.

Franklin, V., Waller, A., Pagliari, C., & Greene, S. (2003). "Sweet talk": Text messaging support for intensive insulin therapy for young people with diabetes. *Diabetes Technology and Therapeutics,* 5, 991-996.

Franklin, V. L., Waller, A., Pagliari, C., & Greene, S. A. (2006). A randomized controlled trial of Sweet Talk, a text-messaging system to support young people with diabetes. *Diabetic Medicine, 23,* 1332-1338.

Free, C., Knight, R., Robertson, S., Whittaker, R., Edwards, P., Zhou, W Roberts, I.

(2011). Smoking cessation support delivered via mobile phone text messaging (txt2stop): A single-blind, randomised trial. *The Lancet, 378,* 49-55.

Free, C., Phillips, G., Galli, L., Watson, L., Felix, L., Edwards, P Haines, A. (2013). The

effectiveness of mobile-health technology-based health behavior change or disease management interventions for health care consumers: A systematic review. *PLoS Medicine, 10,* el001362.

Free, C., Whittaker, R., Knight, R., Abramsky, T., Rodgers, A., & Roberts, I. G. (2009). Txt2stop: A pilot randomised controlled trial of mobile phone-based smoking cessation support. *Tobacco Control, 18,* 88-91.

Garcia-Lizana, F., &Munoz-Mayorga, I. (2010a). Telemedicine for depression: A systematic review. *Perspectives in Psychiatric Care, 46(2),* 119-126.

Garcia-Lizana, F., &Munoz-Mayorga, I. (2010b). What about telepsychiatry? A systematic review. *Primary Care Companion to the journal of Clinical Psychiatry, 12.*

Gerber, B. S., Stolley, M. R., Thompson, A. L., Sharp, L. K., & Fitzgibbon, M. L. (2009).

Mobile phone text messaging to promote healthy behaviors and weight loss maintenance: A feasibility study. *Health Informatics journal, 15,* 17-25.

Gibbons, M. C. (2007). *eHealth solutions far healthcare disparities.* New York: Springer Publications.

Gibbons, M. C., Fleisher, L., Slamon, R. E., Bass, S., Kandadai, V., & Beck, J. R. (2011).

Exploring the potential ofWeb 2.0 to address health disparities.journal*of Health Communication, 16, Supplement 1,* 77-89.

Gilman, M., & Stensland, J. (2013). Telehealth and Medicare: Payment policy, current use, and prospects for growth. *Medicare* & *Medicaid Research, 3(4),* El-El3.

Glasgow, R. E., Bull, S. S., Piette, J. D., & Steiner, J. F. (2004). Interactive behavior change technology: A partial solution to the competing demands of primary care. *American journal of*

*Preventive Medicine, 27,* 80-87.

Godleski, L., Darkins, A., & Peters, J. (2012). Outcomes of 98,609 U.S. Department of Veterans Affairs patients enrolled in telemental health services, 2006-2010. *Psychiatric Services, 63,* 383-385.

Golkaramnay, V., Bauer, S., Haug, S., Wolf, M., &Kordy, H. (2007). The exploration of the effectiveness of group therapy through an internet chat as aftercare: A controlled naturalistic study. *Psychotherapy and Psychosomatics, 76,* 219-225.

Graf, N. M., & Stebnicki, M.A. (2002). Using e-mail for clinical supervision in practicum: A qualitative analysis. *journal of Rehabilitation, 68,* 41-49.

Granholm, E., Ben-Zeev, D., Link, P. C., Bradshaw, K. R., & Holden, J. L. (2012). Mobile assessment and treatment for schizophrenia (MATS): A pilot trial of an interactive text­ messaging intervention for medication adherence, socialization, and auditory hallucinations. *Schizophrenia Bulletin, 38,* 414-425.

Green, B. L. (1996). Trauma history questionnaire. In B. H. Stamm (Ed.), *Measurement of stress, trauma, and adaptation* (pp. 366-369). Lutherville, MD: Sidran Press.

Griffiths, K. M., Calear, L. A., & Banfield, M. (2009). Systematic review on internet support groups (ISGs) and depression (1): Do ISGs reduce depressive symptoms? *journal of Medical Internet Research, 11,* e40.

Griffiths, K. M., & Christensen, H. (2007). Internet-based mental health programs: A powerful tool in the rural medical kit. *TheAustralianjournal of Rural Health, 15,* 81-87.

Gustafson, D. H., McTavish, F. M., Ming-Yuan, C., Atwood, A. K.,Johnson, R. A., Boyle,

M.G .... Shah, D. (2014). A smartphone application to support recovery from alcoholism: A randomized clinical *trial.JAMA, 71(5),* 566-572.

Gustafson, D. H., Shaw, B. R., Isham, A., Baker, T., Boyle, M. G., & Levy, M. (2011).

Explicating an evidence-based, theoretically informed, mobile technology-based system to improve outcomes for people in recovery for alcohol dependence. *Substance Use* & *Misuse, 46,* 96-111.

Guthmann, D., & Graham, V. (2005). Substance abuse: A hidden problem within the D/deaf and hard of hearing communities. *journal of Teaching in the Addictions, 3,* 49-64.

Hanley, T., & Reynolds, D. J., Jr. (2009). Counselling psychology and the internet: A review of the quantitative research into online outcomes and alliances within text-based therapy.

*Counselling Psychology Review, 24,* 4-13.

Hasin, D.S., Aharonovich, E., & Greenstein, E. (2014). HealthCall for the smartphone: Technology enhancement of brief intervention in HIV alcohol dependent patients. *Addiction Science* & *Clinical Practice, 9, 5.*

Hasson, H., Brown, C., & Hasson, D. (2010). Factors associated with high use of a workplace web-based stress management program in a randomized controlled intervention study. *Health Education Research, 25,* 596-607.

Haug, S., Meyer, C., Gross, B., Schorr, G., Thyrian, J. R., Kordy, H John, U. (2008).

Continuous individual support of smoking cessation in socially deprived young adults via mobile phones-Results of a pilot study. *Gesundheitswesen, 70,* 364-371.

Healthcare Information and Management Systems Society. (2011). Security of mobile computing devices in the healthcare environment. Chicago: Healthcare Information and Management Systems Society.

Hester, **R. K.,** & Delaney, H. D. (1997). Behavioral self-control program for Windows: Results of a controlled clinical *trial.journal of Consulting and Clinical Psychology, 65,* 686-693.

Hester, R. K., Squires, D. D., & Delaney, H. D. (2005). The drinker's check-up: 12-month outcomes of a controlled clinical trial of a stand-alone software program for problem drinkers.

*journal of Substance Abuse Treatment, 28,* 159-169.

Hoge, M.A., Morris,]. A., Daniels, A. S., Stuart, G. W., Huey, L. Y., &Adams, N. (2007).

*An action plan far behavioral health workforce development: A framework far discussion.* Rockville, MD: Substance Abuse and Mental Health Services Administration.

Holtyn, A.F., Koffamus, M.N., DeFulio, A., Sigurdsson, S.O., Strain, E.C., Schwartz, R.P....

Silverman, K. (2014). The therapeutic workplace to promote treatment engagement and drug abstinence in out-of-treatment injection drug users: A randomized controlled trial. *Preventive Medicine.*

Hooper, L. M., Stockton, **P.,** Krupnick, **J. L.,** & Green, **B. L.** (2011). Development, use, and psychometric properties of the trauma history questionnaire. *journal of Loss and Trauma, 16,* 258-283.

Horrigan, J. (2009). *Wireless internet use.* Washington, DC: Pew Research Center.

Hunkeler, E. M., Hargreaves, W. A., Fireman, B., Terdiman, J., Meresman, J. F., Porterfield,

Y. ... Taylor, C. B. (2012). A web-delivered care management and patient self-management program for recurrent depression: A randomized trial. *Psychiatric Services,* 63(11), 1063-1071.

Hustad, J. T. P., Barnett, N. P., Borsari, B., &Jackson, K. M. (2010). Web-based alcohol prevention for incoming college students: A randomized controlled trial. *Addictive Behaviors, 35(3),* 183-189.

Institute of Medicine. (2006). *Improving the quality of health care far mental and substance-use conditions: Quality chasm series.* Washington, DC: Institute of Medicine.

Institute of Medicine. (2008). *Treatment of posttraumatic stress disorder: An assessment of the evidence.* Washington, DC: The National Academies Press.

Institute of Medicine. (2009). *Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities.* Washington, DC: National Academies Press.

International Society for Mental Health Online-Clinical Study Group. (2010). *Assessing a person's suitability far online therapy.* Marietta, GA: International Society for Mental Health Online-Clinical Study Group.

International Society for Mental Health Online, & Psychiatric Society for Informatics. (2000).

*The suggested principles far the online provision of mental health services.* Marietta, GA: International Society for Mental Health Online.

International Telecommunication Union. (2011a). *Key global telecom indicators far the world telecommunication service sector.* Geneva: International Telecommunication Union.

International Telecommunication Union. (20116). *The world in 2011: ITC/acts and figures.*

Geneva: International Telecommunication Union.

International Telecommunication Union. (2015). *JCT facts and figures.* Geneva: International Telecommunication Union.

Islam, M. M., Topp, L. Conigrave, K.M., von Beek, I., Maher, L., White, A Day, C. A.

(2012). The reliability of sensitive information provided by injecting drug users in a clinical setting: Clinician-administered versus audio computer-assisted self-interviewing (ACASI). *AIDS Care: Psychological and socio-medical aspects of AIDS/HIV, 24(12),* 1496-1503.

Jamoom, E., Beatty, P., Bercovitz, A., Woodell, D., Palso, M.A., & Rechtsteiner, M. S. (2012).

*Physician adoption of electronic health record systems: United States, 2011.* NCHS data brief, No.

98. Hyattsville, MD: National Center for Health Statistics.

Jansen, W., & Scarfone, K. (2008). *Guidelines on cell phone and PDA security: Recommendations of the National Institute of Standards and Technology.* Washington, DC: U.S. Government Printing Office.

Jeyaraj, A., Rottman, J. W., & Lacity, M. C. (2006). A review of the predictors, linkages, and biases in IT innovation adoption *research.journal of Information Technology, 21,* 1-23.

Jones, B. N., & Colenda, C. C. (1997). Telemedicine and geriatric psychiatry. *Psychiatric Services, 48(6),* 783-785.

Jones, S., & Fox, S. (2009). *The social life of health information: Americans'pursuit of health takes place within a widening network of both online and ojjline sources.* Washington, **DC:** Pew Research Center.

Joo, N. S., & Kim, B. T. (2007). Mobile phone short message service messaging for behaviour modification in a community-based weight control programme in Korea. *journal of Telemedicine and Telecare, 13,* 416-420.

Jordan, E.T., Ray, E. M., Johnson, P., & Evans, W. D. (2011). Text4Baby: Using text messaging to improve maternal and newborn health. *Nursingfor Womens Health, 15,* 206-212.

Juzang, I., Fortune, T., Black, S., Wright, E., & Bull, S. (2011). A pilot programme using mobile phones for HIV prevention. *journal ofTelemedicine and Telecare, 17,* 150-153.

Kaltenthaler, E., Parry, G., Beverley, C., & Ferriter, M. (2008). Computerised cognitive­ behavioural therapy for depression: Systematic review. *British journal of Psychiatry, 193,* 181- 184.

Kaminer, Y., Burleson, J. A., Goldston, D. B., & Burke, R. H. (2006). Suicidal ideation among adolescents with alcohol use disorders during treatment and aftercare. *The American journal on Addictions, 15,* 43-49.

Kaminer, Y., & Napolitano, C. (2004). Dial for therapy: Aftercare for adolescent substance use disorders. *journal of the American Academy of Child* & *Adolescent Psychiatry, 43,* 1171-1174.

Kanz, J. E. (2001). Clinical-supervision.com: Issues in the provision of online supervision.

*Professional Psychology: Research and Practice, 32,* 415-420.

Karlin, B. E., Ruzek, J. I., Chard, K. M., Eftekhari, A., Monson, C. M., Hembree, E. A....

Foa. E. B. (2010). Dissemination of evidence-based psychological treatments for posttraumatic stress disorder in the Veterans Health Administration. *journal of Traumatic Stress, 23,* 663-673.

Kiluk, B. D., Sugarman, D. E., Nich, C., Gibbons, C. J., Martino, S., Rounsaville, B. J. ...

Carroll, K. M. (2011). A methodological analysis of randomized clinical trials of computer­ assisted therapies for psychiatric disorders: Toward improved standards for an emerging field. *American journal of Psychiatry, 168,* 790-799.

Kim, S. I., & Kim, H. S. (2008). Effectiveness of mobile and internet intervention in patients with obese type 2 diabetes. *International journal of Medical Informatics,* 77, 399-404.

King, V. L., Stoller, K. B., Kidorf, M., Kindbom, K., Hursh, S., Brady, T., & Brooner, R. K. (2009). Assessing the effectiveness of an internet-based videoconferencing platform for delivering intensified substance abuse counseling. *journal of Substance Abuse Treatment, 36,* 331-338.

Knealing, T. W., Wong, C.J., Diemer, K. N., Hampton,]., &Silverman, K. (2006). A randomized controlled trial of the therapeutic workplace for community methadone patients: A partial failure to engage. *Experimental and Clinical Psychopharmacology, 14,* 350-360.

Koch, E. F. (2012). The VA Maryland health care system's telemental health program.

*Psychological Services, 9,* 203-205.

Kotz, D., Avancha, S., & Baxi, A. (2009). A privacy framework for mobile health and home­ care systems. In *Proceedings of the first ACM workshop on security and privacy in medical and home-care systems* (pp. 1-12). New York: Association for Computing Machinery.

Kuhn, E., Greene, C., Hoffman, J., Nguyen, T., Wald, L., Schmidt, J., Ruzek, J. (2014).

Preliminary evaluation of PTSD Coach, a smartphone app for post-traumatic stress symptoms. *Military Medicine, 179,* 12-18.

LaMendola, W. F. (1997). *Telemental health services in the U.S. frontier areas.* Letter to the Field No. 3. Boulder, CO: Western Interstate Commission for Higher Education.

Lazev, A., Vidrine, D., Arduino, R., & Gritz, E. (2004). Increasing access to smoking cessation treatment in a low-income, HIV-positive population: The feasibility of using cellular telephones. *Nicotine and Tobacco Research, 6,* 281-286.

Lenhart, A. (2009a). *Adults and social network websites.* Washington, DC: Pew Research Center.

Lenhart, A. (20096). *Social networks grow: Friending mom and dad.* Washington, DC: Pew Research Center.

Lenhart, A. (2009c). *The democratization of online social networks.* Washington, DC: Pew Research Center.

Leong, K. C., Chen, W. S., Leong, K. W., Mastura, I., Mimi, 0., Sheikh, M.A Teng, C.

L. (2006). The use of text messaging to improve attendance in primary care: A randomized controlled trial. *Family Practice, 23,* 699-705.

Levine, D., Madsen, A., Wright, E., Barar, R. E., Santelli, **J.,** & Bull, S. (2011). Formative research on MySpace: Online methods to engage hard-to-reach populations. *journal of Health Communication, 16,* 448-454.

Lieberman, D. Z., & Huang, S. W. (2008). A technological approach to reaching a hidden population of problem drinkers. *Psychiatric Services, 59,* 297-303.

Lim, M. S. C., Hocking,]. S., Hellard, M. E., &Aitken, C. K. (2008). SMS STI: A review of the uses of mobile phone text messaging in sexual health. *International journal of STD* & *AIDS, 19,* 287-290.

Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder.* New York: Guilford Press.

Lord, S., Brevard, J., & Budman, S. (2011). Connecting to young adults: An online social network survey of beliefs and attitudes associated with prescription opioid misuse among college students. *Substance Use* & *Misuse, 46,* 66-76.

Lubans, D.R., Morgan, P. J., Callister, R., & Collins, C. E. (2009). Effects of integrating pedometers, parental materials, and e-mail support within an extracurricular school sport intervention. *journal ofAdolescent Health, 44,* 176-183.

Luxton, D. D., June, J. D., & Kim, J. T. (2011). Technology-based suicide prevention: Current applications and future directions. *Telemedicinejournal and e-Health: The Officialjournal of the American Telemedicine Association, 17, 5*0-54.

Luxton, D. D., Sirotin, A. P., & Mishkind, M. C. (2010). Safety of telemental healthcare delivered to clinically unsupervised settings: A systematic review. *journal of Telemedicine and eHealth, 16(6),705-711.*

Maheu, M. M., & Gordon, B. L. (2000). Counseling and therapy on the Internet. *Professional Psychology: Research and Practice, 31,* 484-489.

Maheu, M., McMenamin, J., & Pulier, M. L. (2013). Optimizing the use of technology in psychology with best practice principles. In G. P. Koocher,J. C. Norcross, &B. A. Greene, (Eds.), *Psychologists' desk reference* (3rd edition). New York: Oxford University Press Publication.

Maheu, M. M., Pulier, M. L., & Roy, S. (2013). Finding, evaluating and using smartphone applications. In G. P. Koocher, J.C. Norcross, & B. A. Greene (Eds.), *Psychologists' desk reference* (3rd edition). New York: Oxford University Press.

Maheu, M. M., Pulier, M. L., Wilhelm, F. H., McMenamin,J. P., &Brown-Connolly, N. E. (2004). *The mental health professional and the new technologies: A handbook for practice today.*

Mahwah, NJ: Lawrence Erlbaum Associates.

Mallen, M. **J.,** Vogel, D. L., & Rochlen, A. B. (2005). The practical aspects of online counseling: Ethics, training, technology, and competency. *The Counseling Psychologist, 33,* 776-818.

Mallen, M. J., Vogel, D. L., Rochlen, A. B., & Day, S. X. (2005). Online counseling: Reviewing the literature from a counseling psychology framework. *The Counseling Psychologist, 33,* 819- 871.

Marrow, C. E., Hollyoake, K., Hamer, D., & Kenrick, C. (2002). Clinical supervision using video-conferencing technology: A reflective *account.Journal of Nursing Management, 10, 275-* 282.

Marsch, L.A. (2011a, August). Computer delivered psychosocial treatment for substance use disorders. In W. M. Aklin, & L. Onken, (Co-Chairs), *Symposium on neurobiologicaland technological mechanisms to improve the efficacy and effectiveness of substance abuse treatment.*

Symposium conducted at the American Psychological Association Annual Meeting, Washington, DC.

Marsch, L.A. (20116). Technology-based interventions targeting substance use disorders and related issues: An editorial. *Substance Use* & *Misuse, 46,* 1-3.

Marsch, L.A., & Bickel, W. K. (2004). Efficacy of computer-based HIV/AIDS education for injection drug users. *American journal of Health Behavior, 28,* 316-327.

Marsch, L.A., Bickel, W. K., & Badger, G. J. (2007). Applying computer technology to substance abuse prevention science: Results of a preliminary examination. *journal of Child* &

*Adolescent Substance Abuse, 16,* 69-94.

Marsch, L. A., Grabinski, M. J., Bickel, W. K., Desrosiers, A., Guarino, H., Muehlbach, B....

Acosta, M. (2011). Computer-assisted HIV prevention for youth with substance use disorders. *Substance Use* & *Misuse, 46,* 46-56.

Marsch, L.A., Guarino, H., Acosta, M., Aponte-Melendez, Y., Cleland, C., Grabinski, M., ...

Edwards, J. (2013). Web-based behavioral treatment for substance use disorders as a partial replacement of standard methadone maintenance treatment. *journal of Substance Abuse, 46,*

43-51.

McAdams III, C. R., & Wyatt, K. L. (2010). The regulation of technology-assisted distance counseling and supervision in the United States: An analysis of current extent, trends, and implications. *Counselor Education and Supervision, 49,* 179-192.

McCann, I. L., & Pearlman, L.A. (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *journal of Traumatic Stress, 3,* 131-149.

McGinty, K. L., Saeed, S. A., Simmons, S. C., & Yildirim, Y. (2006). Telepsychiatry and e­ mental health services: Potential for improving access to mental health care. *Psychiatric Quarterly,* 77, 335-342.

McGovern, M. P., Lambert-Harris, C., Alterman, A. I., Xie, H., &Meier, A. (2011). A randomized controlled trial comparing integrated cognitive behavioral therapy versus individual addiction counseling for co-occurring substance use and posttraumatic stress

*disorders.journal of Dual Diagnosis,* 7, 207-227.

McGurk, S. R., Twamley, E.W., Sitzer, D. I., McHugo, G.J., &Mueser, K. T. (2007). A meta-analysis of cognitive remediation in schizophrenia. *American journal of Psychiatry, 164,* 1791-1802.

McKay, J. R., Lynch, K. G., Shepard, D. S., & Pettinati, H. M. (2005). The effectiveness of telephone-based continuing care for alcohol and cocaine dependence: 24-month outcomes. *Archives of General Psychiatry, 62,* 199-207.

McKay, J. R., Lynch, K. G., Shepard, D.S., Ratichek, S., Morrison, R., Koppenhaver, J., & Pettinati, H. M. (2004). The effectiveness of telephone-based continuing care in the clinical management of alcohol and cocaine use disorders: 12-month *outcomes.journal of Consulting*

*and Clinical Psychology, 72,* 967-979.

McKinsey and Company, & U.S. National Information Infrastructure Advisory Council (1995).

*Connecting K-12 students to the information superhighway.* Palo Alto, CA: McKinsey and Co.

McTavish, F. M., Chih, M.-Y., Shah, D., & Gustafson, D. H. (2012). How patients recovering from alcoholism use a smartphone *intervention.journal of Dual Diagnosis,* 8(4), 204-394.

Meites, E., & Thom, D. H. (2007). Telephone counseling improves smoking cessation rates.

*American Family Physician, 75,* 651-652.

Mensinger, J. L., Diamond, G. S., Kaminer, Y., & Wintersteen, M. B. (2006). Adolescent and therapist perception of barriers to outpatient substance abuse treatment. *American journal of Addiction, 15, Supplement 1,* 16-25.

Merz, T. A. (2010). Using cell/mobile phone SMS for therapeutic intervention. In K. Anthony,

D. M. Nagel, & S. Goss (Eds.), *The use of technology in mental health: Applications, ethics and practice* (pp. 29-38). Springfield, IL: Charles C. Thomas Publishers.

Meyer, B. C., Clarke, C. A., Troke, T. M., & Friedman, L. S. (2012). Essential telemedicine elements (tele-ments) for connecting the academic health center and remote community providers to enhance patient care. *Academic Medicine, 87,* 1032-1040.

Midkiff, D. M., & Wyatt, W. J. (2008). Ethical issues in the provision of online mental health services (etherapy). *journal of Technology in Human Services, 26,* 310-332.

Miller, N. A., & Najavits, L. M. (2012). Creating trauma-informed correctional care: A balance of goals and environment. *European journal of Psychotraumatology, 3,* 17246.

Mills, K. L., Teesson, M., Back, S. E., Brady, K. T., Baker, A. L., Hopwood, S Ewer, P. L.

(2012). Integrated exposure-based therapy for co-occurring posttraumatic stress disorder and substance dependence: A randomized controlled trial. *journal of the American Medical Association, 308,* 690-699.

Mohr, D. C. (2009). Telemental health: Reflections on how to move the field forward. *Clinical Psychology: Science and Practice, 16,* 343-347.

Mohr, D. C., Carmody, T., Erickson, L., Jin, L., & Leader, J. (2011). Telephone-administered cognitive behavioral therapy for veterans served by community-based outpatient clinics. *journal of Consulting and Clinical Psychology, 79,* 261-265.

Mohr, D. C., Siddique, J., Ho, J., Duffecy, J., Jin, L., & Fokuo, J. K. (2010). Interest in behavioral and psychological treatments delivered face-to-face, by telephone, and by internet. *Annals of Behavioral Medicine, 40,* 89-98.

Molfenter, T., Boyle, M., Holloway, D., & Zwick, J. (2015). Trends in telemedicine use in addiction treatment. *Addiction Science* & *Clinical Practice, 10,* 14.

Moore, B. A., Fazzino, T., Garnet, B., Cutter, C. J., & Barry, D. T. (2011). Computer-based interventions for drug use disorders: A systematic review. *journal of Substance Abuse Treatment, 40,* 215-223.

Moore, D., Guthmann, D., Rogers, N., Fraker, S., & Embree, J. (2009). E-therapy as a means for addressing barriers to substance use disorder treatment for persons who are deaf. *journal of Sociology and Social Welfare, 36,* 75-92.

Moreno, M.A., Vanderstoep, A., Parks, M. R., Zimmerman, F. J., Kurth, A., & Christakis, D.

A. (2009). Reducing at-risk adolescents' display of risk behavior on a social networking web site: A randomized controlled pilot intervention trial. *Archives of Pediatrics and Adolescent Medicine, 163,* 35-41.

Muller, I., & Yardley, L. (2011). Telephone-delivered cognitive behavioural therapy: A systematic review and meta-analysis. *journal of Telemedicine and Telecare, 17,* 177-184.

Murphy, L., MacFadden, R., &Mitchell, D. (2008). Cybercounseling online: The development of a university-based training program for e-mail counseling. *journal of Technology in Human Services, 26,* 447-469.

Murphy, L. J., & Mitchell, D. L. (1998). When writing helps to heal: E-mail as therapy. *British journal of Guidance* & *Counselling, 26,* 21-32.

Nagal, D., &Anthony, K. (2009). *Ethicalframeworkfor the use of technology in mental health.*

Highlands, NJ: Online Therapy Institute.

Najavits, L. M. (2002). *Seeking safety: A treatment manual for PTSD and substance abuse.* New York: Guilford Press.

Najavits, L. M. (2009). Seeking safety: An implementation guide. In A. Rubin & D. W. Springer (Eds.), *The clinician's guide to evidence-based practice.* Hoboken, NJ: John Wiley and Sons.

Najavits, L. M., Norman, S. B., Kivlahan, D., & Kosten, T. R. (2010). Improving PTSD/substance abuse treatment in the VA: A survey of providers. *The American journal on Addictions, 19,* 257-263.

National Association of Social Workers. (2008). *Code of ethics.* Washington, DC: National Association of Social Workers.

National Association of State Alcohol and Drug Abuse Directors. (2009). *Telehealth in state substance use disorder (SUD) services.* Washington, DC: National Association of State Alcohol and Drug Abuse.

National Board for Certified Counselors and Center for Credentialing and Education. (2001).

*The practice of Internet counseling.* Greensboro, NC: National Board for Certified Counselors.

National Institute for Health Research Clinical Research Network. (2011). Network support pays dividends for smoking cessation study. In *News from the network* (pp. 6-7). Leeds, UK: National Institute for Health Research Clinical Research Network.

Naylor, M. R., Keefe, F. J., Brigidi, B., Naud, S., & Helzer, J.E. (2008). Therapeutic interactive voice response for chronic pain reduction and relapse prevention. *Pain, 134,* 335-345.

Network for the Improvement of Addiction Treatment. (2013). *NIATx: Five principles.*

Madison, WI: Network for the Improvement of Addiction Treatment.

Neuner, F., Schauer, M., Klaschik, C., Karunakara, U., & Elbert, T. (2004). A comparison of

narrative exposure therapy, supportive counseling, and psychoeducation for treating posttraumatic stress disorder in an African refugee settlement. *journal of Consulting and Clinical Psychology, 72,* 579-587.

Neuner, F., Schauer, M., Roth, W. T., & Elbert, T. (2002). A narrative exposure treatment as intervention in a refugee camp: A case report. *Behavioural and Cognitive Psychotherapy, 30,* 205-210.

New Zealand Psychologists Board. (2011). *Draft guidelines: Psychology services delivered via the Internet and other electronic media.* Wellington, New Zealand: New Zealand Psychologists Board.

Newman, M. G., Consoli, A., & Taylor, C. B. (1997). Computers in assessment and cognitive behavioral treatment of clinical disorders: Anxiety as a case in point. *Behavior Therapy, 28,* 211-235.

Newman, M. G., Kenardy, J., Herman, S., & Taylor, C. B. (1997). Comparison of palmtop­ computer-assisted brief cognitive-behavioral treatment to cognitive-behavioral treatment for panic disorder. *journal of Consulting and Clinical Psychology, 65,* 178-183.

Newnham, E. A., Doyle, E. L., Sng, A. A.H., Hooke, G. R., & Page, A. C. (2012). Improving clinical outcomes in psychiatric care with touch-screen technology. *Psychological Services, 9,* 221-223.Noar, S. M., Black, H. G., & Pierce, L.B. (2009). Efficacy of computer technology­ based HIV prevention interventions: A meta-analysis. *AIDS, 23,* 107-115.

Norman, S. (2006). The use of telemedicine in *psychiatry.Journal of Psychiatric and Mental Health Nursing, 13,* 771-777.

Nundy, S., Dick,J.J., Chou, C.-H., Nocon, R. S., Chin, M.H, &Peek, M. E. (2014). Mobile phone diabetes project led to improved glycemic control and net savings for Chicago plan participants. *Health Affairs, 33,* 265-272.

Obermayer, J. L., Riley, W. T., Asif, 0., &Jean-Mary, J. (2004). College smoking-cessation using cell phone text messaging.Journal *ofAmerican College Health, 53(2),* 71-78.

Office of National Drug Control Policy. (2010). *National drug control strategy: 2010.*

Washington, DC: Office of National Drug Control Policy.

Office of National Drug Control Policy. (2013). *National drug control strategy: 2013.*

Washington, DC: Office of National Drug Control Policy.

Ohio Psychological Association. (2010). *Telepsychology guidelines.* Columbus, OH: Ohio Psychological Association.

Ondersma, S. **J.,** Chase, S. K., Svikis, D. S., & Schuster, C. R. (2005). Computer-based brief motivational intervention for perinatal drug use. *journal of Substance Abuse Treatment, 28,* 305- 312.

Ondersma, S. J., Svikis, D. S., & Schuster, C. R. (2007). Computer-based brief intervention a randomized trial with postpartum women. *American journal of Preventive Medicine, 32,* 231- 238.

Patrick, K., Raab, F., Adams, A. M., Dillon, L., Zabinski, M., Rock, L. C Norman, G. **J.**

(2009). A text message-based intervention for weight loss: Randomized controlled trial.

*journal of Medical Internet Research, 11,* el.

Pedrero-Perez, E.J., Rojo-Mota, G., Ruiz-Sanchez de Leon,}. M., Llanero-Luque, M., & Puerta-Garcia, C. (2011). [Cognitive remediation in addictions treatment]. *Revista de Neurologia, 52,* 163-172.

Pennebaker, J. W., Kiecolt-Glaser, **J.** K., & Glaser, R. (1988). Disclosure of traumas and immune function: Health implications for *psychotherapy.Journal of Consulting and Clinical Psychology, 56,* 239-245.

Pentland, A. S. (2004). Healthwear: Medical technology becomes wearable. *Computer, 37,* 4+42- 4+49.

Pew Research Center. (2012). *Internet adoption trend data: Adults.* Washington, DC: Pew Research Center.

Pew Research Center. (2013). *Health online 2013.* Washington, DC: Pew Research Center. Pew Research Center. (2014). *The Web at 25 in the US.* Washington, DC: Pew Research

Center.

Pew Research Center. (2015). *US. smartphone use in 2015.* Washington, DC: Pew Research Center.

Piette,}. D., Richardson, C., Himle,J., Duffy, S., Torres, T., Vogel, M Valenstein, M.

(2011). A randomized trial of telephonic counseling plus walking for depressed diabetes patients. *Medical Care, 49,* 641-648.

Pollard, R. Q, Dean, R. K., O'Hearn, A., & Haynes, S. L. (2009). Adapting health education material for deaf audiences. *Rehabilitation Psychology, 54,* 232-238.

Polosa, R., Russo, C., Di Maria, A., Arcidiacono, G., Morjaria, J.B., &Piccillo, G. A. (2009).

Feasibility of using e-mail counseling as part of a smoking-cessation program. *Respiratory Care, 54,* 1033-1039.

Postel, M. G., de Jong, C. A., & de Haan, H. A. (2005). Does e-therapy for problem drinking reach hidden populations? *Americanjournal of Psychiatry, 162,* 2393.

Primary Care Research Network. (2013). *Case Studies: Network support pays dividends.* London: Primary Care Research Network.

Qiiinn, C. C., Clough, S.S., Minor, J.M., Lender, D., Okafor, M. C., & Gruber-Baldini, A. (2008). WellDoc mobile diabetes management randomized controlled trial: Change in clinical and behavioral outcomes and patient and physician satisfaction. *Diabetes Technology* & *Therapeutics, 10,* 160-168.

Rabinowitz, T., Murphy, K. M., Amour, J. L., Ricci, M.A., Caputo, M. P., & Newhouse, P.A. (2010). Benefits of a telepsychiatry consultation service for rural nursing home residents. *journal ofTelemedicine and eHealth, 16 (1),* 34-40.

Racine, A. D., Alderman, E. M., &Avner,]. R. (2009). Effect of telephone calls from primary care practices on follow-up visits after pediatric emergency department visits: Evidence from the Pediatric Emergency Department Links to Primary Care (PEDLPC) randomized controlled trial. *Archives of Pediatrics and Adolescent Medicine, 163,* 505-511.

Ragusea, A. S., & VandeCreek, L. (2003). Suggestions for the ethical practice of online psychotherapy. *Psychotherapy: Theory, Research, Practice, Training, 40,* 94-102.

Ramo, D. E., Hall, S. M., & Prochaska, J. J. (2011). Reliability and validity of self-reported smoking in an anonymous online survey with young adults. *Health Psychology, 30,* 693-701.

Ramos-Rios, R., Mateos, R., Lojo, D., Conn, D. K., &Patterson, T. (2012).

Telepsychogeriatrics: A new horizon in the care of mental health problems in the elderly.

*International Psychogeriatrics, 24(11),* 1708-1724.

Recupero, P.R. (2008). Ethics of medical records and professional communications. *Child and Adolescent Psychiatric Clinics of North America, 17,* 37-51, viii.

Reese, R. J., Conoley, C. W., & Brossart, D. F. (2002). Effectiveness of telephone counseling: A field-based investigation. *journal of Counseling Psychology, 49,* 233-242.

Reese, R. J., Conoley, C. W., & Brossart, D. F. (2006). The attractiveness of telephone counseling: An empirical investigation of client perceptions. *journal of Counseling* & *Development, 84,* 54-60.

Regan, S., Reyen, M., Lockhart, A. C., Richards, A. E., &Rigotti, N. A. (2011). An interactive voice response system to continue a hospital-based smoking cessation intervention after discharge. *Nicotine and Tobacco Research, 13,* 255-260.

Revere, D., & Dunbar, P. J. (2001). Review of computer-generated outpatient health behavior interventions: Clinical encounters "in absentia." *journal of the American Medical Informatics Association, 8,* 62-79.

Rhodes, S. D., Hergenrather, K. C., Duncan, J., Vissman, A. T., Miller, C., Wilkin, A. M....

Eng, E. (2010). A pilot intervention utilizing Internet chat rooms to prevent HIV risk behaviors among men who have sex with men. *Public Health Reports, 125, Supplement 1,* 29- 37.

Richens, J., Copas, A., Sadiq, S. T., Kingori, P., McCarthy, 0., Jones, V Pakianathan, M.

(2010). A randomized controlled trial of computer-assisted interviewing in sexual health clinics. *Sexually Transmitted Infections, 86,* 310-314.

Rideout, V. **J.,** Foehr, U. G., & Roberts, D. F. (2010). *Generation M2 media in the lives of 8- to 18-year olds: A Kaiser Family Foundation study.* Menlo Park, CA: The Henry **J.** Kaiser Family Foundation.

Riley, W., Obermayer, J., &Jean-Mary, **J.** (2008). Internet and mobile phone text messaging intervention for college smokers. *journal ofAmerican College Health,* 57, 245-248.

Rimoldi, G., Lewis P., &Jampala, C. (2012). *Help at the hip: Increasing resiliency in high risk suicidal veterans through interactive text messaging.* New York: Veterans Health Administration.

Riper, H., Kramer, J., Smit, F., Conijn, B., Schippers, G., & Cuijpers, P. (2008). Web-based self-help for problem drinkers: A pragmatic randomized trial. *Addiction, 103,* 218-227.

Ritterband, L. M., & Tate, D. F. (2009). The science of internet interventions: Introduction.

*Annals of Behavioral Medicine, 38,* 1-3.

Rodgers, A., Corbett, T., Bramley, D., Riddell, T., Wills, M., Lin, R. B., &Jones, M. (2005). Do u smoke after txt? Results of a randomised trial of smoking cessation using mobile phone text messaging. *Tobacco Control, 14, 255-261.*

Rodriguez, M. D., Favela, J., Preciado, A., & Vizcaino, A. (2005). Agent-based ambient intelligence for healthcare. *AI Communications, 18,* 201-216.

Roker, D., &Coleman,]. (1997). Education and advice about illegal drugs: What do young people want? *Drugs-Education Prevention and Policy, 4,* 53-64.

Rotondi, A. J., Anderson, C. M., Haas, G. L., Eack, S. M., Spring, M. B., Ganguli, R. ...

Rosenstock, **J.** (2010). Web-based psychoeducational intervention for persons with schizophrenia and their supporters: One-year outcomes. *Psychiatric Services, 61,* 1099-1105.

Royal Australian & New Zealand College of Psychiatrists. (2009). *Telepsychiatry position statement (#44).* Melbourne, Australia: Royal Australian & New Zealand College of Psychiatrists.

Royal Australian & New Zealand College of Psychiatrists. (2011). *Telehealth: Brief guide to address practice issues.* Melbourne, Australia: Royal Australian & New Zealand College of Psychiatrists.

Saitz, R., Palfai, T. P., Freedner, N., Winter, M. R., MacDonald, A., Lu, **J.** DeJong, W.

(2007). Screening and brief intervention online for college students: The iHealth study.

*Alcohol and Alcoholism, 42,* 28-36.

Sands, D. Z. (2004). Help for physicians contemplating use of e-mail with *patients.journal of the American Medical Informatics Association, 11,* 268-269.

Schinke, S., Schwinn, T., & Cole, K. (2006). Preventing alcohol abuse among early adolescents through family and computer-based interventions: Four-year outcomes and mediating *variables.journal of Developmental and Physical Disabilities, 18,* 149-161.

Schinke, S. P., Schwinn, T. M., Di Noia, J., & Cole, K. C. (2004). Reducing the risks of alcohol

use among urban youth: Three-year effects of a computer-based intervention with and without parent *involvement.Journalof Studies on Alcohol, 65,* 443-449.

Schinke, S. P., Schwinn, T. M., & Ozanian, A. J. (2005). Alcohol abuse prevention among high-risk youth: Computer-based *intervention.journal of Prevention* & *Intervention in the Community, 29,* 117-130.

Screening for Mental Health, Inc. (2012). *National Depression Screening Day®: October 11, 2012.*

Wellesley Hills, MA: Screening for Mental Health, Inc.

Secure Telehealth. (2012). *Medicaid reimburses for telepsychiatry in 40 states.* Pittsburgh, PA: Secure T elehealth.

Segal, Z. V., Williams, J.M. G., & Teasdale, J. D. (2002). *Mincifulness-based cognitive therapy for depression: A new approach to preventing relapse.* New York: Guilford Press.

Selby, P., van Mierlo, T., Voci, S. C., Parent, D., & Cunningham, J. A. (2010). Online social and professional support for smokers trying to quit: An exploration of first time posts from 2562 *members.journal of Medical Internet Research, 12,* e34.

Selmi, P. M., Klein, M. H., Greist,]. H., Sorrell, S. P., &Erdman, H.P. (1990). Computer­ administered cognitive-behavioral therapy for depression. *American journal of Psychiatry, 147,* 51-56.

Selmi, P. M., Klein, M. H., Greist,]. H., Sorrell, S. P., &Erdman, H.P. (1991). Computer­ administered therapy for depression. *MD Computing, 8,* 98-102.

Shapiro, J. R., Bauer, S., Hamer, R. M., Kordy, H., Ward, D., & Bulik, C. M. (2008). Use of text messaging for monitoring sugar-sweetened beverages, physical activity, and screen time in children: A pilot *study.Journal oJNutrition Education and Behavior, 40,* 385-391.

Sharp, I. R., Kobak, K. A., & Osman, D. A. (2011). The use of videoconferencing with patients with psychosis: A review of the literature. *Annals of General Psychiatry, 10,* 14.

Shiffman, S. (2009). Ecological momentary assessment (EMA) in studies of substance use.

*Psychological Assessment, 21,* 486-497.

Shore,]. H., Brooks, E., Anderson, H., Bair, B., Dailey, N., Kaufmann, L.J., &Manson, S. (2012). Characteristics of telemental health service use by American Indian veterans.

*Psychiatric Services, 63(2),* 179-181.

Shore,]. H., Savin, D. M., Novins, D., &Manson, S. M. (2006). Cultural aspects of telepsychiatry. *journal ofTelemedicine* & *Telecare. 12(3),* 116-121.

Shore, J. H., Savin, D., Orton, H., Beals, J., & Manson, S. M. (2007). Diagnostic reliability of telepsychiatry in American Indian veterans. *American journal of Psychiatry, 164(1),* 115-118.

Silverman, K., Wong, C. J., Grabinski, M. J., Hampton, J., Sylvest, C. E., Dillon, E. M., & Wentland, R. D. (2005). A web-based therapeutic workplace for the treatment of drug addiction and chronic unemployment. *Behavior Modification, 29,* 417-463.

Simon, G. E., Ralston, J. D., Savarino, J., Pabiniak, C., Wentzel, C., & Operskalski, B. H. (2011). Randomized trial of depression follow-up care by online *messaging.Journal of General Internal Medicine, 26(7),* 698-704.

Simpson, S., & Morrow, E. (2010). Using videoconferencing for conducting a therapeutic relationship. In K. Anthony, D. M. Nagel, & S. Goss (Eds.), *The use of technology in mental health: Applications, ethics and practice* (pp. 94-103). Springfield, IL: Charles C. Thomas Publishers.

Sloan, D. M., Gallagher, M. W., Feinstein, B. A., Lee, D. J., & Pruneau, G. M. (2011).

Efficacy of telehealth treatments for posttraumatic stress-related symptoms: A meta-analysis.

*Cognitive Behaviour Therapy, 40,* 111-125.

Smith, A. (2010). *Home broadband 2010.* Washington, DC: Pew Research Center.

Smith, B., Harms, W. D., Korda, H., Rosen, H., Davis, J., Burres, S. (in press). Enhancing behavioral health treatment and crisis management through mobile ecological momentary assessment and SMS messaging. *Health Informatics journal.*

Smith, A., Rainie, L., & Zickuhr, K. (2011). *College students and technology.* Washington, DC: Pew Internet and American Life Project.

Spek, V., Nyklicek, I., Cuijpers, P., & Pop, V. (2008). Predictors of outcome of group and internet-based cognitive behavior therapy. *journal of Affective Disorders, 105,* 137-14*5.*

Stamm, B. H. (1998). Clinical applications of telehealth in mental health care. *Professional Psychology: Research and Practice, 29,* 536-542.

Stofle, **G. S.** (2001). Addiction treatment online. *Behavioral Health Management, 24, 53-55.*

Substance Abuse and Mental Health Services Administration. (2011a). *Addressing viral hepatitis in people with substance use disorders.* Treatment Improvement Protocol (TIP) Series 53. HHS Publication No. SMA 11-4656. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (20116). *Leading change: A plan for SAMHSA's roles and actions 2011-2014.* HHS Publication No. (SMA) 11-4629. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (2011c). *Managing chronic pain in adults with or in recovery.from substance use disorders.* Treatment Improvement Protocol (TIP) Series 54. HHS Publication No. SMA 11-4661. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (2012). *SAMHSA's working definition of recovery: 10 guiding principles of recovery.* HHS Publication No. (PEP) 12- RECDEF. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (2013a). *Addressing the specific behavioral health needs of men.* Treatment Improvement Protocol (TIP) Series *56.* HHS Publication No. SMA 13-4736. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (20136). *Behavioral health services for people who are homeless.* Treatment Improvement Protocol (TIP) Series *55.* HHS

Publication No. SMA 13-4734. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (2013c). *Coming soon: GO2AID* - *A mobile app far disaster responders.* Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (2014a). *Improving cultural competence.* Treatment Improvement Protocol (TIP) Series *59.* (HHS Publication No. SMA 14-4849). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (20146). *Leading change 2.0: Advancing the behavioral health of the nation 2015-2018.* HHS Publication No. (PEP) 14- LEADCHANGE2. Rockville, MD Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (2014c). *Trauma-informed care in behavioral health services.* Treatment Improvement Protocol (TIP) Series *57.* HHS Publication No. SMA 14-4816. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (planned a). *Behavioral health services: Building health, wellness, and quality of life far sustained recovery.* Treatment Improvement Protocol (TIP) Series. Rockville, **MD:** Substance Abuse and Mental Health

Services Administration.

Substance Abuse and Mental Health Services Administration. (planned b). *Behavioral health services far American Indians and Alaska Natives.* Treatment Improvement Protocol (TIP) Series. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (planned c). *Managing anxiety symptoms in behavioral health services.* Treatment Improvement Protocol (TIP) Series.

Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (planned d). *Recovery in behavioral health services.* Treatment Improvement Protocol (TIP) Series. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (planned e). *Reintegration-related behavioral health issues in veterans and military families.* Treatment Improvement Protocol (TIP) Series. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration, Trauma and Justice Strategic Initiative. (2012). *SAMHSA's working definition of trauma and guidance far trauma-informed approach.* [Draft.] Rockville, MD: Substance Abuse and Mental Health Services Administration.

Suler, J. (2001). Assessing a person's suitability for online therapy: The ISMHO clinical case study group. *CyberPsychology* & *Behavior, 4,* 675-679.

Tasker, A. P., Gibson, L., Franklin, V., Gregor, P., & Greene, S. (2007). What is the frequency of symptomatic mild hypoglycemia in type 1 diabetes in the young?: Assessment by novel mobile phone technology and computer-based interviewing. *Pediatric Diabetes, 8,* 15-20.

Tate, D. F. (2011). A series of studies examining internet treatment of obesity to inform internet interventions for substance use and misuse. *Substance Use* & *Misuse, 46, 57-65.*

Tate, D. F., Finkelstein, E. A., Khavjou, 0., & Gustafson, A. (2009). Cost effectiveness of Internet interventions: Review and recommendations. *Annals of Behavioral Medicine, 38,* 40- 45.

Tate, D. F., & Zabinski, M. F. (2004). Computer and internet applications for psychological treatment: Update for clinicians. *journal of Clinical Psychology, 60,* 209-220.

Taylor, C. B., & Luce, K. H. (2003). Computer- and internet-based psychotherapy interventions. *Current Directions in Psychological Science, 12,* 18-22.

Te Poel, F., Bolman, C., Reubsaet, A., & de Vries, H. (2009). Efficacy of a single computer­ tailored e-mail for smoking cessation: Results after 6 months. *Health Education Research, 24,* 930-940.

Titov, N., Andrews, G., Robinson, E., Schwencke, G., Johnston, L., Solley, K., & Choi, I. (2009). Clinician-assisted internet-based treatment is effective for generalized anxiety disorder: Randomized controlled trial. *Australian and New Zealand journal of Psychiatry, 43,* 905-912.

Treatment Research Institute (2010). *Integrating appropriate services for substance use conditions in health care settings: An issue brief on lessons learned and challenges ahead. Forum on Integration: Collaborative for States.* Philadelphia: Treatment Research Institute.

Tse, M. M., Choi, K. C., & Leung, R. S. (2008). E-health for older people: The use of technology in health promotion. *Cyberpsychology and Behavior, 11,* 475-479.

U.S. Department of Health and Human Services. (2006). *HIPM security guidance.* Washington, DC: U.S. Department of Health and Human Services.

U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services. (2012). Telehealth services. In *Rural health fact sheets series* (Rep. No. ICN 901705). Washington, DC: U.S. Department of Health and Human Services.

U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services. (2013). Expansion of Medicare telehealth services for calendar year (CY) 2013. In *MLN Matters* (Rep. No. MM7900 Revised). Washington, DC: U.S. Department of Health and Human Services.

U.S. Department of Health and Human Services, Office of the Secretary. (2013). *Modifications to the HIPM privacy, security, enforcement, and breach notification rules under the Health Information Technology for Economic and Clinical Health Act and the Genetic Information Nondiscrimination Act; Other modifications to the HIPM rules; Final rule.* Rockville, MD: U.S. Department of Health and Human Services.

U.S. Food and Drug Administration. (2011). *Mobile medical applications.* Silver Spring, MD:

U.S. Food and Drug Administration.

U.S. Food and Drug Administration. (2014). *Examples of mobile apps for which the FDA will exercise enforcement discretion.* Silver Spring, MD: U.S. Food and Drug Administration.

U.S. Food and Drug Administration, Center for Devices and Radiological Health & Center for Biologics Evaluation and Research. (2013). *Mobile medical applications: Guidance for industry and Food and Drug Administration staff* Silver Spring, MD: U.S. Food and Drug Administration, Center for Devices and Radiological Health & Center for Biologics Evaluation and Research.

Vaca, F. E., Winn, D., Anderson, C. L., Kim, D., &Arcila, M. (2011). Six-month follow-up of computerized alcohol screening, brief intervention, and referral to treatment in the emergency department. *Substance Abuse, 32,* 144-152.

Vaccaro, N., & Lambie, **G. W.** (2007). Computer-based counselor-in-training supervision: Ethical and practical implications for counselor educators and supervisors. *Counselor Education and Supervision, 47,* 46-57.

Valentine, P. V., & Smith, T. E. (2001). Evaluating Traumatic Incident Reduction (TIR) therapy with female inmates: A randomized controlled clinical trial. *Research on Social Work Practice, 11 (1),* 40-52.

Vernmark, K., Lenndin, J., Bjarehed, J., Carlsson, M., Karlsson, J., Oberg, J. ... Andersson, G. (2010). Internet administered guided self-help versus individualized e-mail therapy: A randomized trial of two versions of CBT for major depression. *Behaviour Research and Therapy, 48(5),* 368-376.

Vilella, A., Bayas, J. M., Diaz, M. T., Guinovart, C., Diez, C., Simo, D Cerezo, J. (2004). The

role of mobile phones in improving vaccination rates in travelers. *Preventive Medicine, 38,* 503- 509.

Walters, S. T., Miller, E., & Chiauzzi, E. (2005). Wired for wellness: e-lnterventions for addressing college *drinking.Journal of Substance Abuse Treatment, 29,* 139-145.

Wantland, D. J., Portillo, C. J., Holzemer, W. L., Slaughter, R., &McGhee, E. M. (2004). The effectiveness of web-based vs. non-web-based interventions: A meta-analysis of behavioral

change outcomes. *journal of Medical Internet Research, 6,* e40.

Watson, A., Bickmore, T., Cange, A., Kulshreshtha, A., & Kvedar, J. (2012). An internet-based virtual coach to promote physical activity adherence in overweight adults: Randomized controlled trial. *journal of Medical Internet Research, 14,* el.

Webb, T. L.,Joseph,J., Yardley, L., &Michie, S. (2010). Using the internet to promote health behavior change: A systematic review and meta-analysis of the impact of theoretical basis, use of behavior change techniques, and mode of delivery on *efficacy.Journal of Medical Internet*

*Research, 12,* e4.

Wei, J., Hollin, I., & Kachnowski, S. (2011). A review of the use of mobile phone text messaging in clinical and healthy behavior interventions. *journal of Telemedicine and Telecare, 17,* 41-48.

Weingardt, K. R., Cucciare, M.A., Bellotti, C., & Lai, W. P. (2009). A randomized trial comparing two models of web-based training in cognitive-behavioral therapy for substance abuse *counselors.journal of Substance Abuse Treatment, 37,* 219-227.

Weingardt, K. R., Villafranca, S. W., & Levin, C. (2006). Technology-based training in cognitive behavioral therapy for substance abuse counselors. *Substance Abuse, 27,* 19-25.

Weiser, M. (1991). The computer for the 21st-century. *Scientific American, 265,* 94-104.

Weitzel,]. A., Bernhardt,]. M., Usdan, S., Mays, D., &Glanz, K. (2007). Using wireless handheld computers and tailored text messaging to reduce negative consequences of drinking *alcohol.journalof Studies on Alcohol and Drugs, 68,* 534-537.

White, A., Kavanagh, D., Stallman, H., Klein, B., Kay-Lambkin, F., Proudfoot,]. ... Young, R. (2010). Online alcohol interventions: A systematic *review.journal of Medical Internet Research, 12,* e62.

Whittaker, R., Borland, R., Bullen, C., Lin, R. B., McRobbie, H., & Rodgers, A. (2009).

Mobile phone-based interventions for smoking cessation. *Cochrane Database System Review,*

CD006611.

Winkler, M., Flanagin, A., Chi-Lum, B., White,]., Andrews, K., Kennett, R., DeAngelis, C., &Musacchio, R. (2000). Guidelines for medical and health information sites on the internet. *journal of the American Medical Association, 283(12),* 1600-1606.

Wisdom, J.P., Ford II, J. H., & McCarty, D. (2010). The use of health information technology in publicly-funded U. S. substance abuse treatment agencies. *Contemporary Drug Problems: An Interdisciplinary Quarterly, 37,* 315-339.

Wise, P.H., Dowlatshahi, D. C., Farrant, S., Fromson, S., &Meadows, K. A. (1986). Effect of computer-based learning on diabetes knowledge and control. *Diabetes Care, 9,* 504-508.

Wood, J. A. V., Miller, T. W., & Hargrove, D.S. (2005). Clinical supervision in rural settings: A telehealth model. *Professional Psychology: Research and Practice, 36,* 173-179.

Yellowlees, P., Burke, M. M., Marks, S. L., Hilty, D. M., & Shore, J. H. (2008). Emergency

*telepsychiatry.journal ofTelemedicine and Telecare, 14,* 277-281.