# Considerations for the Provision of E-Therapy


U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Treatment
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# Contents

# Foreword

The Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Substance Abuse Treatment (CSAT), is especially interested in building substance abuse treatment capacity using E-therapy for hard-to-reach and traditionally underserved populations.

SAMHSA/CSAT assembled expert researchers and service providers from across the United States and Canada to discuss the most commonly used forms of electronically delivered services and their potential efficacy with a variety of substance abuse and mental health issues. Subsequent meetings of the expert panel resulted in a recommendation for the development of a guidance document to include: purposes of E-therapy, specialty populations, evaluation, appropriate settings for service delivery, licensure, and administrative concerns.

Taken together, the invaluable contributions of these experts have resulted in the information provided within this document, and will likely shape efforts to provide quality substance abuse treatment services for years to come.

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# Introduction

## *Purpose*

The widespread use of electronic forms of communication has permeated many aspects of American daily life. Use of e-mail, instant messaging, telephones, videoconferencing, and other forms of communication have, in many instances, replaced face-to-face conversations, meetings, and conferences. Further, many Americans use electronic communications to shop, conduct business, and attend to financial obligations. More recently, they have used electronic forms of communications to seek and receive medical treatment (e.g., Alleman, 2002; Darkins and Cary, 2000). While the use of the telephone for health-related issues is not as new, administering treatment electronically is relatively novel in the United States (Darkins and Cary, 2000). Substance abuse treatment through electronic means (also known as E-therapy) is not used widely, but experts predict that its use will increase rapidly during the next several years (Mallen and Vogel, 2005; Mallen, Vogel, and Rochlen, 2005; Mallen, Vogel, Rochlen, and Day, 2005). For this reason, the Center for Substance Abuse Treatment (CSAT) of the U.S. Department of Health and Human Services (HHS), Substance Abuse and Mental Health Services Administration (SAMHSA), has developed this document to guide practitioners in the development and implementation of substance abuse treatment services using E-therapy. SAMHSA CSAT's interest in the efficacy of E-therapy for substance abuse treatment stems from the desire to address unmet needs among the general population. For example, SAMHSA's 2005 National Survey on Drug Use and Health (NSDUH; SAMHSA, 2006) respondents reported that they did not receive substance abuse treatment due to barriers related to cost (44.4 percent), stigma (18.5 percent), and access (21.2 percent). These needs are exacerbated among specific populations throughout the country, where resources for treatment are limited by number of treatment facilities, transportation, and costs (McAuliffe and Dunn, 2004; McAuliffe, LaBrie, Woodworth, Zhang, and Dunn, 2003). For these reasons, CSAT is especially interested in building substance abuse treatment capacity through E-therapy for hard-to-reach and traditionally underserved populations.

## *History*

This document was developed from information collected over the course of more than 2 years of meetings with experts and practitioners in the fields of mental health and substance abuse. The investigation of the possibilities of E-therapy began with a meeting held in December 2004 in Rockville, MD. CSAT hosted this meeting, "E-Therapy, Telehealth, Telepsychiatry, and Beyond," which assembled researchers and service providers from across the United States and Canada to discuss the most commonly used forms of electronically delivered services and care and their efficacy with a variety of mental health and substance abuse issues. In addition, the experts convened for this meeting discussed the legal and ethical challenges that this emerging field must address before developing and implementing efforts to expand the availability of technologically assisted services.

The dialogue concerning pertinent issues regarding technologically assisted services (now referred to as E-therapy) continued in 2006, with a series of three meetings with field experts. (For a list of meeting participants, see page 46, Contributors.) The focus of these meetings was to establish the direction of CSAT's E-therapy initiative and to identify tasks that would contribute to the effort. Specifically, these experts recommended the development of a guidance document for substance abuse treatment grantees and single-state agencies that included: (1) purposes of E-therapy, (2) identification of specialty populations, (3) evaluation, (4) appropriate settings for service delivery, (5) licensure, and (6) administrative concerns.

The experts also recommended the development of demonstration projects to further investigate the benefits and challenges associated with the implementation of E-therapy. An additional outcome of these meetings was the formation of an E-therapy expert panel work group consisting of professionals experienced in the field of substance abuse treatment. The members of this expert panel (see page 44, CSAT E-Therapy Advisory Board) were charged with the oversight of ongoing E-therapy activities, including development of the guidance document.

Taken together, these experts' invaluable contributions have resulted in the information provided within this document, and will likely shape efforts to provide quality substance abuse treatment services for years to come.

## *Content and Structure*

This document presents information from a variety of sources, including E-therapy meeting notes and transcripts, scholarly references, and personal communication with CSAT staff and other field experts. The guidance document consists of five sections. Each section addresses an issue deemed key to the development and implementation of E-therapy services.

The overview section outlines the technological mechanisms for delivering E-therapy for substance abuse (as defined by CSAT), the appropriate uses for electronic therapies, the populations for which this modality may be used, and assessments of effectiveness based on recent research. In addition, the overview provides suggestions for potential uses of E-therapy and the benefits and challenges associated with this treatment.

The second section addresses issues related to the evaluation of services provided by E-therapy. Specifically, this section describes indicators and measures that may be useful for evaluating the condition and progress of E-therapy clients, including screening and assessment. In addition, this section explains the costs and benefits of specific aspects of evaluation design.

The third section discusses cultural and linguistic competence. In particular, this section discusses the impact of technology on culture and race/ethnicity, including barriers to cultural competence.

The fourth section focuses on legal and regulatory issues. While the practice of E-therapy is not new, the notion of using it as an alternative modality for specific populations is a recent concept (Maheu, Pulier, Wilhelm, McMenamin, and Brown-Connolly, 2005). Therefore, laws, policies, and procedures that would be used to guide the provision of services in this fashion are still under development. This section also discusses mandated reporting requirements, practitioner and client confidentiality, and informed consent.

The final section addresses administrative considerations for the provision of E-therapy, including technical support, network security, and billing.

# Overview

## *What is E-Therapy?*

The provision of behavioral health services delivered interactively from a distance began as early as 1959, at the Nebraska Psychiatric Institute, when a television link was used to provide consultation (Maheu, et al., 2005; Maheu, Whitten, and Allen, 2001). Since the introduction of the use of technology in this manner, other forms of service delivery using electronic media have been developed and used in health care systems throughout the United States and abroad (Brown, 1998; Darkins and Cary, 2000; Maheu, et al., 2005). The development of electronic forms of behavioral health service delivery has also led to a multitude of terms used to describe this form of treatment. While E-health (also known as ehealth) is believed by many experts to be the preferred term for all clinical services administered via the Internet, E-therapy is among those names (in addition to e-counseling, cybercounseling, cybertherapy, and teletherapy) commonly used among professionals to describe services administered electronically (Maheu, et al., 2005). Similarly, there are a number of definitions to further explain the components and uses of E-therapy. The definition below serves as the conceptual framework for the information provided in this document:

> *E-therapy is the use of electronic media and information technologies to provide services for participants in different locations. It is used by skilled and knowledgeable professionals (e.g., counselors, therapists) to address a variety of individual, familial, and social issues. E-therapy can (1) include a range of services, including screening, assessment, primary treatment, and after care; (2) provide more accessible modes of treatment than the traditional ones to those who actively use the recent development of technology (i.e., adolescents and young adults); (3) help people access treatment services who traditionally would not seek services because of barriers related to geography, shame and guilt, stigma, or other issues; and 4) be provided as a sole treatment modality, or in combination with other treatment modalities, like traditional or existing treatments.* [1,2,3]

A variety of electronic media is used to conduct E-therapy and can be classified as either text-based or non-text-based. Text-based forms of communication include e-mail, chat rooms, text messaging, and listservs. Forms of communication that are not text-based include telephone and videoconferencing (Maheu, et al., 2005). Each form of communication has its advantages and disadvantages, which should be taken into consideration when determining the best methods for the service population, which may vary by health-related issues. These benefits and challenges are shown in Table 1.

In general, services administered via E-therapy are either synchronous or asynchronous. Synchronous communication is most easily facilitated through instant messaging, chat rooms, telephone, and videoconference. Synchronous communication provides immediate feedback, since both the practitioner and client are engaged in conversation during the same time frame (Castelnuovo, Gaggiolo, Matonavani, and Riva, 2003; Elleven and Allen, 2004). However, it should be noted that the quality of the equipment used in providing synchronous E-therapy

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[1] Adapted from American Telemedicine Association (May 2006). Telemedicine, Telehealth and Health Information Technology: An Issue Paper. Retrieved on Aug. 28, 2006, from http://www.americantelemed.org/news/policy_issues/HIT_Paper.pdf.

[2] Adapted from Grohol, J. (May 2002). Best Practices of eTherapy: Clarifying the Definition of e-Therapy. Retrieved on April 27, 2006, from http://psychcentral.com/best/best5.htm.

[3] Developed, revised, and finalized by CSAT E-Therapy Expert Panel Work Group Meeting participants, Aug. 28, 2006.

services is of utmost importance in maintaining the flow of communication (D. Albury, personal communication, Aug. 28, 2006). In particular, older equipment may result in sluggish transfer of information, while faulty equipment may be disruptive. An additional consideration for the use of synchronous text-based service delivery (i.e., via text messaging and chat rooms) is that it is most useful with clients who have typing skills (G. Stofle, personal communication, Aug. 28, 2006; Suler, 2000). For this reason, a user's skills in communication and typing should be among the client characteristics considered when making decisions about the appropriateness of specific forms of electronic therapy.

**Table 1.** Benefits and Challenges Associated with Modes of E-Therapy

| | Benefits | Challenges |
|---|---|---|
| Text-Based Communication | | |
| E-mail | Conversation can be reviewed at a later date; Allows for more thoughtful communication. | Asynchronous; Does not allow for immediate response; Not completely secure (e.g., messages can be forwarded, copied, etc.); No nonverbal cues; Requires an e-mail account, Internet access, and computer. |
| Instant Messaging | Immediate response; Conversation can be reviewed at a later date. | Not completely secure (e.g., messages can be forwarded, copied, etc.); No nonverbal cues; Requires an e-mail account, Internet access, and computer. |
| Internet Chat | Group setting; Rapid response; Conversation can be reviewed at a later date. | Not completely secure (e.g., messages can be forwarded, copied, etc.); No nonverbal cues; Requires an e-mail account, Internet access, and computer. |
| Text Messaging | Immediate response; Conversation can be reviewed at a later date. | Not completely secure (e.g., messages can be forwarded, copied, etc.); No nonverbal cues; Requires a cellular phone. |
| Non-Text-Based Communication | | |
| Telephone | Immediate feedback; Low cost | Client cannot review conversations at a later date. |
| Videoconference | Immediate feedback; Can use nonverbal cues to support intervention. | Cost; Requires knowledge of equipment; Usually requires some travel. |
| Fax | Rapid feedback; Low cost. | Not secure; Information can be forwarded and copied. |

Asynchronous communication allows for correspondence without simultaneous connection (Maheu, et al., 2005). Examples include postal mail, e-mail, facsimile, and voicemail. These forms of contact generally do not allow for immediate feedback or a consistent flow of conversation. As a result, the level of support offered via asynchronous communication is believed to be lower in comparison to synchronous forms of communication (M. Osborne, personal communication, Aug. 28, 2006). However, it is also important to note that asynchronous forms of communication tend to be less expensive, as they generally do not require the same degree of technological capacity as most synchronous forms of interaction. Further, asynchronous forms of communication allow the practitioner to prepare and revise responses to clients, thereby providing more thoughtful feedback (Castelnuovo, et al., 2003; Maheu, et al., 2005; G. Stofle, personal communication, Aug. 28, 2006; Suler, 2000).

When planning E-therapy implementation, it is important to acknowledge the distinction between forms of communication, so that clients' needs can be readily addressed. For example, practitioners serving significant numbers of persons in crisis should consider the use of synchronous forms of communication, as a delayed response might place distressed clients in danger (Yager, 2002). However, as most service providers address an array of client challenges, having the capacity to use both synchronous and asynchronous forms of communication may be most appropriate (Maheu, et al., 2005; Stofle, 2004).

## *When is the Use of E-Therapy Appropriate?*

E-therapy has the potential to be utilized throughout the continuum of care, for a variety of conditions. In particular, online counseling may be appropriate for psychoeducational purposes, issues requiring short-term treatment, self-help interventions, and cognitive-behavioral approaches (Mallen and Vogel, 2005). Also, persons who have endured trauma and are contending with feelings of anxiety, guilt, fear and shame as a result, are good candidates for E-therapy (J. Hoffmann, personal communication, Aug. 28, 2006; G. Stofle, personal communication, Aug. 28, 2006).

In addition, experts have identified specific groups of people for whom E-therapy may be suitable (e.g., International Society for Mental Health Online [ISMHO] Clinical Study Group, 2002; Mallen and Vogel, 2005; J. Shore, personal communication, Aug. 28, 2006; Stofle, 2004). For example, persons located in remote areas (e.g., rural, American Indian/Alaska Native territories) may benefit greatly from the flexibility of services delivered electronically (Brown, 1998; Gibson, Morley, and Romeo-Wolff., 2002). Other underserved populations, including ethnic and racial minorities, women with children, and people from low-income families may also experience improved access to substance abuse treatment services (Y. Choi, personal communication, Aug. 28, 2006). Adolescents and young adults have also been identified as a population that has the potential to benefit from E-therapy (Skinner, Biscope, Poland, and Goldberg, 2003). An added advantage of this group is their familiarity with computers and the Internet and their willingness to utilize technology in new ways (Skinner, et al., 2003; J. Wodarsky, personal communication, Aug. 28, 2006). However, according to Stofle (2001), populations inappropriate for online counseling include those with suicidality; borderline personality disorders, difficulty distinguishing reality from nonreality, or conditions that require face-to-face meetings for diagnosis (ISMHO, 2002).

## *How Can Treatment Providers Use E-Therapy?*

An additional benefit of E-therapy is its versatility in terms of service delivery. E-therapy can be used to provide education, assessment and diagnosis, direct treatment, and aftercare services. In addition, providers can give and receive training and supervision using electronic forms of communication (Maheu, et al., 2005; Stofle, 2004). Each of the aforementioned uses is discussed in further detail below.

### Referrals

Persons seeking treatment for substance abuse can obtain referrals via the Internet, e-mail, or telephone from credible resources (Maheu, et al., 2005; Stofle, 2004). A number of web-based directories, often maintained by insurance companies and service providers, give prospective clients practitioner information about available services, treatment specialties, types of insurance accepted, and location (Maheu, et al., 2005). Many of these websites are available for providers to advertise for a fee. However, fraudulent websites have been identified. Therefore, practitioners should thoroughly investigate any website before posting information and/or remitting payment (Maheu, et al., 2005). In addition, service providers must be aware that confirming the identity of a client referred electronically might be difficult. Additional

considerations related to confidentiality and identity confirmation are discussed further in the "Legal and Regulatory Issues" section of this document.

## Education

The Internet has served as a source of information and education for a number of health-related issues through scientific journal articles available online, websites (e.g., WebMD, CyberDocs, and Metanoia), and listservs (Maheu, et al., 2005; Yager, 2002). Practitioners can also use the Internet to help clients feel more comfortable with technology, inform them of the treatment process, and assuage their anxiety about undergoing therapy. In addition, service providers can develop client education programs that are accessible via the World Wide Web. These programs can provide ongoing support, information, and treatment via the Internet. For example, Federal agencies, in their efforts to support substance abuse treatment efforts in communities, have developed several websites that target specific age groups. Specifically, the National Institute on Drug Abuse (NIDA) has developed a website to educate adolescents ages 11 through 15 years about scientific factors associated with drug abuse (see http://teens.drugabuse.gov/about.asp). Similarly, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) has developed a series of interactive, Internet-based tools for college students to inform them of the dangers of alcohol use (see http://collegedrinkingprevention.gov). However, it should be noted that these programs should be immediately followed by treatment if necessary to prolong the effects of the information provided (Maheu, et al., 2005). Additionally, GetFit.SAMHSA.Gov (see http://getfit.samhsa.gov/) is an interactive website that provides information about physical health, mental health, alcohol and illicit drugs.

## Assessment and Diagnosis

The Internet may also play a role in assessment and diagnosis. Several web-based screening tools are available for clients to assess their substance use. Many of these sites provide feedback and treatment resources for those who need assistance after taking an assessment (Copeland and Martin, 2004; Stofle, 2004). In addition, web-based questionnaires can be used to assess clients both before and during treatment (Maheu, et al., 2005). This practice establishes a baseline measure of the client's condition and ongoing measurement of progress. Moreover, some studies suggest that psychological self-assessments conducted via the Internet are comparable to paper-and-pencil assessments (Vallejo, Jordán, Diáz, Comeche, and Ortega, 2007). However, as practitioners are commonly trained to incorporate observed nonverbal cues into their assessment and diagnosis, some experts (e.g., see Fenichel, 2000) argue that diagnosis is difficult without visual, olfactory, and aural cues to assist with the process. Grohol (cited in Ragusea and VandeCreek, 2003) argues that diagnosis is simply impossible online. Unfortunately, the ability to observe certain cues is not possible when administering a questionnaire via the Internet. There is some evidence to suggest that videoconferencing may alleviate some of the concern around the inability to fully view the client, but the findings are somewhat inconclusive to date (Elleven and Allen, 2004). For this reason, many experts agree that an initial in-person meeting should be held for assessment purposes and to determine the appropriateness of E-therapy for the client's condition (Alleman, 2002; Stofle, 2004).

## Direct Care

Substance abuse treatment may also be provided via E-therapy for clients deemed appropriate for service delivery in this fashion. A number of providers in private practice offer treatment, most often via e-mail or chat rooms as the method of delivery (Stofle, 2004). In addition, chemical dependency treatment programs are available online. Many of these programs, such as eGetgoing (www.egetgoing.com), provide Internet-based services, and are recognized by

major bodies of accreditation (Stofle, 2004). In addition, Internet-based brief interventions for substance use have yielded promising outcomes (e.g., Copeland and Martin, 2004).
E-therapy may also be used as an adjunct to services provided face-to-face (Maheu et al., 2005). Practitioners may provide opportunities for communication through e-mail, chat, telephone, or videoconference. It should be noted that E-therapy might not be appropriate for all clients, as it may compromise the development of independence from the service provider. However, for some clients, it may facilitate communication that would not otherwise occur (Day, quoted in Maheu, et al., 2005, p. 360).

### After Care

E-therapy may also be used by practitioners to support clients after treatment has been administered. Providers can use direct online contact as part of relapse prevention, particularly when using text-based forms of communication. These interactions serve as a reference for both the provider and client. In addition, self-help groups have resources available through the Internet (Stofle, 2004).

### Training and Supervision

Communication conducted via E-therapy can also be used for training and supervision purposes. Text-based sessions provide records that can be reviewed directly (Maheu, et al., 2005). In addition, providers have offered continuing education to clinical staff in remote locations through videoconferencing. This method provides a low-cost, time-effective means for obtaining training and education (Gibson, et al., 2002).

## *How Effective is E-Therapy?*

The array of services delivered via E-therapy provides opportunities for populations that would otherwise go without much-needed care (Brown, 1998; Gibson, et al., 2002; ISMHO, 2002; Mallen and Vogel, 2005; J. Shore, personal communication, Aug. 28, 2006; Stofle, 2004). Determining the degree to which E-therapy is effective should be based on both client perceptions of the care they received and on empirical research demonstrating a reduction in symptoms.
In terms of client perceptions, an informal survey conducted by Metanoia, a nonprofit clearinghouse for mental health websites, yielded the following results:

- Ninety percent of online clients who participated in the survey felt that E-therapy helped them.
- Many participants also felt that they would not have initially sought face-to-face therapy.
- A large percentage of those who sought online therapy later used face-to-face counseling (Alleman, 2002).

These results suggest that clients believe that they have been helped by services delivered through E-therapy.
Although the potential of E-therapy to provide quality services is frequently cited, there is insufficient empirical research to determine the efficacy of online therapy (Alleman, 2002; Barnett, 2005; Copeland and Martin, 2004; Ragusea and VandeCreek, 2003). Experts (e.g., Barnett, 2005) have emphasized the need for more research to thoroughly assess the delivery of mental health services via electronic media, citing methodological difficulties in designing studies to assess different types of online counseling and capturing the effects of practices commonly used with some forms of E-therapy (e.g., the use of emoticons to convey emotions using text). Additional methodological concerns include small sample sizes, high dropout

rates, and the lack of standards for comparison (e.g., Barnett, 2005; Copeland & Martin, 2004). These issues are discussed in further detail in the "Evaluation" section of this document.

While some argue that online therapy may be limited in its treatment efficacy due to the lack of nonverbal cues, some research suggests that humans find ways to express nonverbal cues in the absence of conventional "socio-emotional, nonverbal" cues. Further, some research findings suggest that levels of affect can exceed those of face-to-face situations in the absence of traditional nonverbal cues. For example, both children and adults seem to readily disclose much sooner when receiving treatment online versus in-person (Alleman, 2002).

## *The Efficacy of Specific Approaches*

Castelnuovo and colleagues (2003) contend that the Internet can improve treatment delivery in two areas: individual therapy and self-help therapy. "Individual telepsychotherapy," which is psychotherapy conducted remotely, might be used to access remote populations (Castelnuovo, et al., 2003). Findings from studies investigating the efficacy of individual telepsychotherapy with conditions including panic disorder, public speaking phobias, and agoraphobia have suggested that treatments administered electronically have significantly decreased most symptoms associated with those conditions (e.g., Botella, Banos, Villa, Perpiña, and Garcia-Palacios, 2000; Bouchard, et al., 2000; Murdoch and Connor-Greene, 2000). In terms of self-help therapy, the effectiveness of online groups is generally high for the treatment of eating disorders and depression. However, it should be noted that the potential for ethical violations is also high, due to limited privacy, varied locations of participants, and the inability to confirm participants' identities.

Although few studies exist examining the efficacy of Internet-based substance abuse interventions, there is some evidence that providing cognitive behavioral treatment (CBT) electronically may be as effective as face-to-face. For example, Hester and Delaney (1997) found that behavioral self-control training, a CBT intervention designed to help participants change their behavior around drinking, was equally as effective when delivered online (Copeland and Martin, 2004). Further, the reductions in alcohol use were maintained over a 1-year period.

## *Benefits and Challenges Associated with E-Therapy*

Every form of treatment has benefits and challenges associated with its use, and E-therapy is no exception. As was previously mentioned, more research is needed to thoroughly assess the benefits and challenges associated with providing mental health services online. While there are many aspects of E-therapy that may be deemed either positive or negative, the following section focuses on three salient issues for each. Specifically, in terms of benefits, accessibility, cost, and continuity of care are discussed. The challenges discussed include demand for E-therapy, the "digital divide," and confidentiality.

### Benefits Associated with E-Therapy

In terms of access to services, research findings have suggested that online counseling may benefit clients who are isolated in rural areas or are underserved by conventional systems (Mallen and Vogel, 2005). That is, treatment providers may have the ability to make themselves more widely available to those in need, as compared to providers administering face-to-face treatment. For example, E-therapy services can be found in "rural clinics, military programs, correctional facilities, community mental health centers, nursing homes, home health care settings, and hospitals." (Maheu, et al., 2005). More practitioners delivering services electronically will also improve treatment access for underserved populations. Further, practitioners can more readily provide interactive psychoeducational materials during

times when traditional services may not be accessible. These online materials can be used to dispel myths about mental health treatment, encourage treatment compliance, promote self-monitoring, and teach relapse strategies (Mallen and Vogel, 2005).

E-therapy is also associated with lower costs for care, particularly for rural programs (Alleman, 2002; Brown, 1998; Gibson, et al., 2002). For example, direct costs associated with E-therapy consultations have been as much as 50 percent less than face-to-face consultations in eastern Oregon's RodeoNet telepsychiatry program (Brown, 1998). Although the initial costs for equipment may be prohibitive (Darkins and Cary, 2002), reduced travel for clients and practitioners, improved quality of care, and increased levels of monitoring and assistance have all been identified as factors related to the decrease in funds spent to provide care (Maheu, et al., 2005; Gibson, et al., 2002). Lower costs have also been attributed to reduced time spent per appointment for some areas of health care, such as dermatology (Darkins and Cary, 2002).

E-therapy may also allow practitioners to maintain consistent contact with clients who relocate or are highly mobile (Mallen, et al, 2005; Yager, 2002). The ability to access providers and clients from multiple locations vastly increases the continuity of care. Research findings suggest that continuity of care is important to the development and maintenance of the client-practitioner relationship. The strength of this relationship is, in turn, associated with client assessments of the quality and effectiveness of the care they receive (Castelnuovo, et al., 2003).

## Challenges Associated with E-Therapy

Experts have identified a number of challenges associated with E-therapy. It is predicted that the overall demand for online treatment service delivery will increase over the next decade (Alleman, 2002; Castelnuovo, et al., 2003; Mallen, et al., 2005). However, according to Alleman (2002), mental health professionals are unprepared for this demand (Alleman (2002). Further, it is believed that practitioners are reluctant to investigate ways to incorporate E-therapy into their existing methods of service delivery (Mallen, et al., 2005). As a result, the accessibility of services offered through electronic means may not achieve its full potential over time. In addition, the demand for assistance will continue to exceed the availability of services, resulting in continued unmet need.

Another challenge associated with providing E-therapy involves maintaining client-practitioner confidentiality. This is a major concern, as regulations are imposed on the therapist, but not the client. Nothing prevents a client from forwarding correspondence between himself and his therapist to a third party (Alleman, 2002). In addition, the exchange of information conducted over the Internet creates records that can be infiltrated and are not easily deleted (Manhal-Baugus, 2001; Recupero and Rainey, 2005). Further, these records can be infiltrated easily if communication occurs over insecure connections (Maheu, et al, 2005; Terry, 2002). Maintaining the highest possible levels of network security is of paramount importance for practitioners to ensure the privacy of clients (Ragusea and VandeCreek, 2003).

An additional challenge associated with the use of E-therapy concerns disproportionate access to electronic media. Mallen and colleagues (2005) identified "young, affluent, educated, and highly functioning whites as having the greatest access to the technology required" for E-therapy (Sanchez-Page, 2005). This "digital divide" may compromise the ability of E-therapy to reach underserved populations (Sanchez-Page, 2005; A. K. Burlew, personal communication, Aug. 28, 2006). The effects of the "digital divide" also include persons who are not computer-savvy or are fearful of technology.

## *Summary*

- An array of media is used to conduct E-therapy. The advantages and disadvantages of each form of communication should be considered when determining the best methods for a service population. For example, a user's skill level (e.g., communication, typing, and other media-related skills) should be among the client characteristics considered when making decisions about the appropriateness of specific forms of electronic therapy.
- E-therapy has the potential to be utilized throughout the continuum of care, for a variety of conditions. For example, E-therapy can be used to provide: (1) education; (2) assessment and diagnosis; (3) direct treatment; and (4) aftercare services. In addition, providers can give and receive training and supervision using electronic forms of communication.
- Although the potential of E-therapy to provide quality services has been examined extensively, there is a dearth of research findings to determine its effectiveness, especially for substance abuse intervention and treatment. Experts have emphasized the need for more research to thoroughly assess the delivery of mental health services via electronic media, citing methodological difficulties with study design.

Benefits associated with E-therapy include greater accessibility for hard-to-reach and underserved populations, lower costs as compared to face-to-face therapy, and the ability to maintain continuity of care when clients relocate or travel.
A challenge associated with E-therapy includes the "digital divide," the term used to characterize disparities in access to computers and the Internet. An additional difficulty associated with E-therapy is maintaining confidential relationships with clients.

# Evaluation

## *Introduction*

Research on substance abuse treatment using E-therapy is sparse. Studies have focused primarily on evaluating adjunct online services, such as the effectiveness of different modes for the delivery of substance abuse education interventions, including videoconferencing (Coogle, Osgood, Parham, Wood, and Churcher, 1995), interactive multimedia (Reis and Riley, 2002), and computer bulletin boards (Jackson, 1995). In addition, studies have assessed the utility of an automated, clinical research management system (Hartz, Banys, Hall, and Frazer, 1994), an automated telephone follow-up system for monitoring outcomes in drug abuse treatment (Alemi, et al.,1994), and a telephone case-management system to supplement substance abuse treatment (Vaughn-Sarrazin, Hall, and Rick, 2000). Other studies have addressed the potential of electronic technology in addressing substance abuse problems in hard-to-reach rural areas (Smith and Keliy, 2002) and the ability of E-therapy to increase access to alcohol treatment for underserved populations, such as women and older persons (Postel, de Jong, and de Haan, 2005), including female and elderly prisoners (Watson, Stimpson, and Hostick, 2004).

Evaluation of substance use disorder treatment services using E-therapy as a stand-alone treatment is limited to research on alcohol abuse treatment services. For example, a randomized controlled trial of "**e**lectronic **CH**eck-**U**p to **G**o" (e-CHUG), a commercially available web-based intervention, suggests that it effectively reduces alcohol consumption among heavy-drinking college freshmen (Walters, Vader, and Harris, in press). Research also supports the efficacy of physician counseling plus telephone support (Curry, Ludman, Grothaus, Donovan, and Eleanor, 2003), computerized early intervention (Schinke, Schwinn, Di Noia, and Cole, 2004), and web-based screening and brief intervention (e-SBI; Kypri, et al., 2004) for reducing alcohol consumption among both adolescents and adults.

The effectiveness of E-therapy to treat substance use disorders is unclear in existing research. That lack of clarity is further supported by feedback from SAMHSA's expert discussion groups. Irrespective of whether E-therapy for substance abuse treatment is proposed as a stand-alone treatment or adjunctive service, experts generally agreed that two critical questions need to be addressed in future evaluation research:

- What are appropriate outcomes to examine?
- How do we know that E-therapy works?

The remainder of this section addresses issues germane to the future evaluation of substance use disorder treatment services provided through the E-therapy mechanism, such as design considerations and expected outcomes. It draws heavily from the literature on substance abuse treatment outcome evaluation as well as expert guidelines for evaluating similar services, such as e-counseling, telemedicine, and telehealth.

## *Outcome Measures and Clinical Significance*

### Screening and Assessment

The Institute of Medicine defines essential evaluation criteria as measures, indicators, or standards for making decisions based on clinical significance (Field, 1996). The foremost clinical decision is whether or not to provide treatment. Brief measures of substance abuse are

given at intake screening. When indicated, individuals are given an in-depth assessment of substance-related pathology and referred to appropriate care. Clinical impressions may underestimate substance use disorder and substance-related problems, particularly among youth (Gray, Upadhyaya, Deas, and Brady, 2006). Collateral informants, including parents and peers, also have been used to assess substance abuse independently; however, it is unclear under what conditions their reports are useful in evaluation research, and it is generally recommended that biochemical verification be used routinely (Laforge, Borsari, and Baer, 2005). Thus, evaluation criteria for screening and assessment of substance use disorders generally include at least two measures: biochemical markers and patient self-reports.

## Biochemical Markers

Biochemicals, also known as biomarkers, provide objective evidence that supports the presence of chemicals within a person's system. For onsite testing, several rapid, sensitive, easy-to-use, and cost-effective qualitative methods are currently available for testing breath alcohol levels and detecting commonly abused substances in oral fluids (saliva) and urine (test cups, test strips, dip cards). However, these tests cannot determine how much drug is present; thus, they cannot distinguish among occasional users and those who may be impaired from persons who abuse or are dependent on drugs. Blood drug tests are the best indicators of intoxication, and regulatory agencies such as SAMHSA often require quantitative confirmation through gas chromatography/mass spectrometry, the "gold standard" for confirming initial results of qualitative drug testing.

One promising alternative to blood tests is the sweat patch (Baer and Booher, 1994), a drug-testing device resembling a large Band-Aid, which collects sweat and screens for illicit substances. Sweat patches have been tested in clinical trials (Winhusen, et al., 2003) and in criminal justice (parole and probation) programs to confirm self-reported drug use. Though periodic collection is still necessary, this alternative could be useful in monitoring recent drug use for participants in hard-to-reach areas when abstinence is a measure of treatment outcome.

## Self-Reports

Self-reports of recent substance use are valid in treatment-seeking research participants (Kedzior, Badcock, and Martin-Iverson, 2006). The literature also shows respectable reliability and validity of self-reported drug use and drug-related problems when compared with biomarkers and other collateral information (Darke, 1998). Self-reports are the most commonly used methodology in studies on the effectiveness of drug treatment (Secades-Villa and Fernandez-Hermida, 2003). Thus, self-reports by individuals seeking treatment may be sufficiently reliable and valid to provide descriptions of drug use and drug-related problems of the type likely to be encountered in E-therapy.

## Prominent Measures

Using standardized screening and assessment measures can improve greatly the identification of persons with substance use disorders and drug-related problems. Several standardized questionnaires have been developed and examined for validity and reliability for automated and interactive applications, such as the Alcohol Use Disorders Identification Test (AUDIT; Rubin, et al., 2006), the Drug Abuse Screening Test (DAST; McCabe, Boyd, Cranford, Morales, and Slayden, 2006), and the Addiction Severity Index (ASI; Brodey, et al., 2004). Other prominent measures, such as the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST; World Health Organization [WHO] ASSIST Working Group, 2002), can be converted into self-report formats, including Internet, interactive voice response (IVR), and automated telephone technologies.

## *Outcome Measures and Effectiveness*

General Concerns
Basic models for evaluating treatment services using E-therapy are nonexistent. Consequently, issues that need to be addressed to facilitate the successful integration of evaluation and e-therapy have been adapted from a framework of areas of concern for evaluations of e-counseling (Mallen, Vogel, Rochlen, and Day, 2005). These issues include:

- Ethics, including confidentiality and duty-to-warn
- Ethnic and cultural mistrust for mental health and substance abuse treatment services and providers in communities of color
- Technology failures, contingency planning for disconnections, crashes, and other breakdowns
- Logistics, including scheduling sessions, starting on time, ongoing data collection, and delays and interruptions
- Potential limitations of treatment with high-risk patients
- Barriers in communication, such as the inability to tap into nonverbal communication and cues)
- Differences in technology utilized by the client and therapist
- Different levels of experience with web technology
- Digital divide, barriers to access, socioeconomic status, literacy level
- Modes of delivery
- Time needed for rapport and engagement to develop sufficiently.

### Benchmarks
There are no well-established benchmarks for evaluating substance use disorder treatment that has direct application to E-therapy. Nevertheless, the effects of telemedicine and telehealth approaches like E-therapy can be measured and compared at several levels, including process of care and effects on the outcomes of care (Field, 1996).

### Process of Care
Process measures are often used as substitutes for evaluation outcomes and are broadly classified as technical capacity, diagnostic accuracy/impact, and therapeutic impact (Field, 1996):

- Technical capacity (Is the technology used in E-therapy safe, accurate, and reliable?). For example, “How does e-mail compare with telephone therapy?”
- Diagnostic accuracy (Does E-therapy technology lead to accurate diagnoses?). For example, "Are online screening scores correct following clinical review?”
- Diagnostic impact (Does the technology provide information that is useful in making an accurate diagnosis?). For example, “Following computerized assessment is a face-to-face meeting still necessary?”

- Therapeutic impact (Does the technology enhance service delivery or clinical management?). For example, "Do substance abuse counselors perform better when they have more immediate access to assessment results?"

## Outcome Evaluation

Outcome evaluation assesses the effectiveness of a program in achieving its objectives. Measures of treatment success commonly used as outcome measures include: abstinence, reduced use, decreased symptoms, improved functioning, and engagement and retention (Power, Nishimi, and Kizer, 2005). Some measure of the amount of treatment that participants receive should also be used (e.g., length of treatment, time per session, percentage of treatment plan completed). Demographic characteristics and means of tracking participants are collected at intake. Ideally, outcome measures should be collected at each treatment session and each follow-up interview. Follow-up intervals typically range from 6 months to 2 years, though longer periods are desirable, even 5 to10 years post-discharge (Yates, 1999). All participants, not just completers, are followed to determine post-treatment success (Begg, 2000).
Yates (1999) advocates a record for each participant that contains the individual's characteristics, outcomes achieved, treatment procedures used, and financial resources expended. What works in E-therapy may vary among participants depending on the electronic technology employed (Glueckauf, Whitton, and Nickelson, 2001). Consequently, treatment mode (e.g., telephone, e-mail, and videoconference) should also be included. In this manner, records may be combined to demonstrate the effectiveness of substance abuse treatment (as a whole, as well as its parts) based on analyses of its features and aimed at program improvement through a modification of operations as indicated.

## Outcomes and Performance

To convince policymakers that E-therapy programs are responsible for significant, positive results, such as improved services, greater efficiency, and successful measurable outcomes (Chavez and DeLeon, 1997), a set of core outcome measures could be applied to several evaluations for a cross-site comparison of treatment effectiveness.
For example, CSAT's National Outcome Measures (NOMs)/Government Performance Results Act (GPRA) contain key outcome measures to determine how effective the implementation of substance abuse treatment services is nationwide, including:

- Abstinence from drug use and alcohol abuse
- Decreased symptoms of mental illness
- Increased or retained employment or school enrollment
- Decreased involvement with the criminal justice system
- Increased stability in family and living conditions
- Increased access to services
- Increased retention in services
- Increased social connectedness to family, friends, coworkers, or classmates.

## Costs

Contemporary approaches to assessing outcomes determine the relative costs and benefits of treatment, though they are not well understood and have been rarely studied in previous research (French, 1995). If necessary, econometric assistance should be sought, and cost

estimates (e.g., cost-utility, cost-benefit, cost-effectiveness, and cost-offset) calculated so that the costs and benefits of various types and modes of E-therapy can be compared. Costs for all treatment participants, including service provided to those who leave treatment early, should be included in the econometric analyses to derive accurate estimates (Yates, 1999).
From this perspective, evaluations can answer two important questions:

- How much does it cost to provide substance abuse treatment using E-therapy?
- What is the relationship between costs and outcomes?

## Design Considerations

Without question, CSAT field experts who participated in the development of this guidance document agreed that advancement of E-therapy in substance abuse treatment must be science-based and substantiated by data or other relevant information. Clinical decisions and contemporary practice are informed by systematic evidence reflecting the latest advancements in screening, assessment, diagnosis, and treatment of substance use disorders and related problems. The strength of the evidence depends largely on the quality of these investigations. By far, randomized controlled trials provide the strongest study design, and systematic reviews and meta-analyses of such trials offer the highest level of scientific support for outcome evaluations that inform the delivery of high-quality, evidence-based care (Moher, et al., 1999). Other study designs include (in descending order of strength of evidence) nonrandomized controlled prospective studies and retrospective trials, cohort studies, case-control studies, noncontrolled clinical series, descriptive studies, consensus methods, and case reports or anecdotes.
Major impediments for definitive evaluation can be the availability of resources, which ultimately influence the choice of evaluation designs. For this reason, qualitative designs (e.g., interviews, case studies, focused discussion groups, pilot studies) may be useful for conducting exploratory research in a new area and for describing the characteristics, cases, and settings for E-therapy. These designs may also assist with understanding the processes for administering treatment electronically. Within-subjects designs, in which the same group of participants serves in more than one treatment, may be useful for examining the effect of different types of technologically assisted services on the delivery of care.
Pre-post test designs assess participants on the same outcome measures and during exactly the same time period, both before and after treatment. Though less scientifically rigorous, they are more realistic for treatment services, demonstration programs, and small-scale projects with limited resources and experience with E-therapy. Pre-post designs also are useful for demonstrating accountability and identifying areas that need improvement (e.g., overcoming technological failures, disconnections, crashes, and other breakdowns). A pre-post test design of providers might also further understanding of the differences in treatment approaches, effectiveness, accuracy, and diagnosis. Extended pre-post designs (e.g., time-series) are particularly effective in showing the stability of participants' outcomes (WHO, 2000).
CSAT reports that substance abuse treatment is effective at reducing primary drug use by approximately 50 percent, criminal activity by 80 percent, and alcohol- and drug-related medical visits by 50 percent (CSAT, 2003). Because the effectiveness of substance abuse treatment is established, many researchers feel it is unethical to conduct randomized controlled trials or other studies in which treatment-seeking participants receive minimal treatment or no intervention at all. The strategy of comparing different treatments can resolve this dilemma—for example, E-therapy vs. face-to-face counseling; E-therapy comparing distinct, evidence-based interventions for the treatment of marijuana abuse; or E-therapy plus e-counseling for depression in co-occurring disorders vs. E-therapy alone (Basham, 1986; Kazdin, 1986; O'Leary and Borkovec, 1978). Comparison group designs are recommended when comparison

groups can be chosen deliberately rather than randomly, so that participants are representative of the E-therapy treatment-seeking population at-large.

## *Evaluation Questions*

The questions that follow are adapted from the Institute of Medicine's guidance for telemedicine evaluations (Field, 1996):

- Is E-therapy associated with improvements in substance abuse services (e.g., sessions, length of treatment, and effectiveness of treatment)?
- Is E-therapy associated with differences in the appropriateness of service delivery (e.g., increased use in hard-to-reach populations)?
- Is E-therapy associated with differences in the quality, amount, or type of information available to clinicians (e.g., increased use of ASI) or participants (e.g., improved knowledge of treatment options)?
- Is E-therapy associated with differences in participant's knowledge of their substance use status, their understanding of treatment options, or their compliance with care?
- Is E-therapy treatment associated with differences in patient satisfaction from traditional therapy?
- Is E-therapy associated with differences in diagnostic accuracy (e.g., fewer scoring errors with automated DAST)?
- Is E-therapy associated with differences in clinical management (e.g., increased time devoted to therapy)?
- Is E-therapy associated with differences in participant symptoms (e.g., decreased apathy, anxiety, or depression) and functioning (e.g., increased earnings and days worked, less marital discord)?
- What are the effects of E-therapy on the process of substance abuse care compared with the alternatives?

## *Assessing Benefits*

Three questions arise regarding the issue of whether E-therapy works:

- Did E-therapy affect outcomes?
- How much did E-therapy affect outcomes?
- How does this effect compare to the effects of alternative treatments?

To answer the first question, evaluations employ statistical significance testing to determine the probability that an effect exists (p-value) for various measures of association that are dependent on the evaluation design. For example, these may involve analysis of variance for comparison group designs or repeated measures analysis of variance for pre-post and within-subjects designs.

To address the second question, effect size provides a statistical estimate of the magnitude of the effect. A problem with using significance testing as the sole indication that an effect exists relates to statistical power or the probability of detecting a meaningful effect, which varies as a function of p-value, effect size, and sample size. For example, it is not uncommon for large-

scale evaluations to produce significant results for trivial effects or for small-scale evaluations to produce nonsignificant results when there is evidence of medium or even very large and meaningful effects. The value of also reporting effect size is that it is a standardized benchmark and can be compared with effect sizes from other types of interventions. In addition, combining significance testing and effect sizes with cost analyses would inform policymakers and potential funders and payers that the technologies they are paying for have the intended effects.

## *Summary*

- The Institute of Medicine (Field, 1996) defines essential evaluation criteria as measures, indicators, or standards for making decisions based on clinical significance. The foremost clinical decision is to whether or not to provide treatment.
- Evaluation criteria for screening and assessment of substance use disorders generally include at least two measures: biochemical markers and patient self-reports.
- Issues that need to be addressed to facilitate the successful integration of evaluation and E-therapy have been adapted from a framework of areas of concern for evaluations of e-counseling.
- Outcome evaluation assesses the effectiveness of an ongoing program in achieving its objectives. Common outcome measures for substance abuse treatment include: abstinence, reduced use, decreased symptoms, improved functioning, and engagement and retention.
- Major impediments for definitive evaluation can be the availability of resources, which ultimately influences the choice of evaluation designs.
- Qualitative designs may be used to conduct exploratory research in a new area and may be useful for describing the characteristics, cases, and settings for E-therapy.

## Cultural and Linguistic Competence

Unmet needs-to-services mismatches are evident among some ethnic and racial minority populations, who are far more likely to encounter problems in access to traditional substance abuse and mental health services and to receive lower quality services when they do receive care (Wells, Klap, Koike, and Sherbourne, 2001; Harris, Edlund, and Larson, 2005). Problem drinking and illicit drug use go untreated, yet E-therapy is expected to build substance abuse treatment capacity for such hard-to-reach and traditionally underserved groups. The treatment community is charged with providing effective substance abuse treatment modalities for all ethnicities. How do culture and race affect appropriate substance abuse treatment strategies for minority populations? What is the pivotal role of dialect and language when providing substance abuse treatment services to specific target populations? Each of these topics will be discussed in this section.

### *Knowledge of Culture and Ethnicity*

There is limited research available that addresses the benefits and concerns surrounding E-therapy, culture, and linguistic competence (HHS, 2001). Defining cultural competence and examining the underlying factors that often prevent minority groups and other ethnic or racial groups from seeking effective treatment is critical for the adaptation and development of culturally appropriate treatment interventions. Castro, Proescholdbell, Abeita, and Rodriguez (1999) define cultural competence as "the capacity of a service provider or an organization to understand and work effectively in accordance with the cultural beliefs and practices of persons from a given ethnic/racial group." Failing to customize E-therapy substance abuse treatment to accommodate the different cultural needs, experiences, and beliefs of the individual client can be a serious mistake.

Culture (e.g., norms, traditions, and religious rituals) plays an important role in clients' lives (Maheu, 2001). For example, research indicates that minority groups often rely on cultural coping mechanisms within the community to address stress and perceived mental or substance use disorders. In African American and Latino communities, discussing challenging life events with a clergy member or traditional healer is readily accepted and often preferred to traditional treatment methods (Levin, 1986; Risser and Mazur, 1995). Young, Griffith, and Williams (2003) surveyed 99 African American pastors on the amount of time they spent counseling parishioners. The pastors averaged approximately 6 hours a week counseling members of the congregation, often addressing serious mental health and substance abuse concerns. Native American populations may more readily seek assistance from traditional informal service providers or tribal elders than from a licensed mental health professional (Walls, Johnson, Whitbeck, and Hoyt, 2006). Marbella, Harris, Diehr, Ignace, and Ignace (1998) interviewed 150 Native American adult clients at a Wisconsin Indian Health Center and found that 38 percent of the respondents would seek help from a traditional healer in conjunction with Western health care. In addition, 61.4 percent of the clients indicated they would follow the advice of the traditional healer if the advice given by the western-influenced physician differed from the traditional healer.

Linguistic competence is especially relevant in the delivery of services via electronic forms of communication (Maheu, 2001). Users may be native English writers or persons who use English as a second language. English-proficient providers also cannot assume that all persons accessing E-therapy services understand English as well as the clinician. Allowing the client to fully participate in developing treatment interventions by providing feedback has proven beneficial for the client and practitioner (HHS, 2001). No doubt, familiarity with colloquial expressions, idioms, and local variations of word usage is critical to that feedback. Maheu

(2001) also states that to offer behavioral health (substance abuse and mental health) care in the absence of such knowledge and understanding about specific patients can easily be considered outside the standard of care and can serve as major impediments to informed consent, clinical assessment, client education, and direct care. Therefore, it is important to be aware of cultural beliefs and communication nuances among minority groups, as they are important components for practitioners to incorporate during online counseling sessions.
As a practitioner, it is essential to recognize that standard substance abuse curricula and general interventions may not necessarily provide the best treatment strategy for an individual from a minority group. Cultural competence is about adapting practices and interventions to meet the needs of diverse cultural groups (Davis, 1997). Studies conducted by Jerrell and Wilson (1997) indicate that ongoing training in cultural competence is crucial for providing minority clients with culturally appropriate services and treatment options. In that manner, a culturally engaged practitioner always considers a client's cultural background and experiences, which may influence the utilization of E-therapy as a relevant form of treatment for substance abuse.

## *Barriers to Cultural Competence*

Beliefs and attitudes about particular groups of people usually dictate individuals' behavior toward that group, regardless of the accuracy of the perception (HHS, 2001). Mistrust of the medical community has been documented repeatedly, according to the Epidemiologic Catchment Area study conducted in the early 1980s (HHS, 2001). In the study, nearly 50 percent of the African Americans surveyed reported a fear of receiving mental health treatment, compared with 20 percent of whites. Current-day discrimination and racism coupled with historical mistreatment are real barriers that may contribute to a lack of trust toward mental health treatment and the medical community (HHS, 2001).
In addition, a 1999 study funded by the Kaiser Family Foundation reported similar findings within minority populations. Results indicated that 12 percent of African Americans and 15 percent of Latinos, vs. 1 percent of whites, believed that they had received substandard medical care because of their race (HHS, 2001). Data from the Commonwealth Fund Minority Health Survey (1997) reported that 43 percent of African Americans and 28 percent of Latinos, compared with 5 percent of whites, perceived they were treated poorly by a health care professional because of their race and cultural background (HHS, 2001). Likewise, immigrants and refugees are also leery of the U.S. health care system. Consequently, the delivery of mental health and substance use disorder treatment services for undocumented people is in jeopardy because this population fears deportation and mistreatment (HHS, 2001).
Few research studies examine the link between effective culturally competent substance abuse treatment services through electronic modalities for minority individuals. Sanchez-Page (2005) identifies and addresses four counseling inadequacies in delivering culturally appropriate mental health treatment online.
**Lack of culturally suitable evaluation tools.** Researchers and practitioners should design culturally suitable evaluation tools to measure the benefits of E-therapy compared with face-to-face counseling among minority populations and their white counterparts.
**Lack of awareness about communication styles.** Practitioners must understand the important impact of cultural communications styles among minority populations and how the absence of verbal and nonverbal cues associated with online counseling may negatively influence the relationship between the practitioner and client.
**Limited access to technology in communities of color.** Poverty and disproportionate access to technology within communities of color limit the use of E-therapy as a mainstream counseling option for minority groups. Consequently, further research is required to examine the usefulness of electronic therapy among minority populations.

**Lack of culturally appropriate online interventions.** Develop culturally appropriate online interventions that address the cultural beliefs and practices of individuals from specific ethnic/racial groups (Castro, et al., 1999).
By effectively addressing important cultural factors, clinicians may begin cultivating the opportunity to advance the integration of E-therapy among underrepresented and underserved populations (Sanchez-Page, 2005).

## *Shame Associated with Mental Illness and Substance Abuse*

Members of minority communities often have critical views about mental illness (HHS, 2001). In these communities, individuals who suffer from mental illness are often ostracized and subjected to shame and embarrassment by family members (HHS, 2001). Documenting the intensity of this stigma is difficult because minority groups are reluctant to address issues related to mental illness and substance abuse (HHS, 2001). Few cross-cultural studies have examined the relationship between race and mental illness. Zhang, Snowden, and Sue (1998) conducted a study comparing Asian Americans and whites living in Los Angeles. Data indicated that more than twice the number of whites (25 percent) would consider talking about their mental health challenges with a friend, compared with 12 percent of Asians. Study reports also showed that only 4 percent of Asian respondents would seek assistance from a mental health professional, compared with 26 percent of white respondents. Thirteen percent of white participants found it acceptable to discuss mental distress with a doctor, compared with only 3 percent of the Asian participants found it acceptable (HHS, 2001).
In the 1970s, the National Opinion Research Center began to evaluate societal views of mental illness. This extensive analysis initiated the 1996 General Social Survey (HHS, 2001), which gauged respondents' personal opinions about mental illness when presented with various short stories depicting people diagnosed with mental illness. Study results indicated that respondents labeled people with mental illness as a menace and unfit to handle personal responsibilities. Intense criticism was aimed at individuals with substance abuse problems and schizophrenia. However, researchers observed that neither the race of neither the respondents nor of the individuals portrayed in the short stories factored into the stigma associated with mental illness (HHS, 2001).
On the other hand, a second study assessing public bias toward individuals with mental illness captured how different ethnic groups respond to people with mental illness (HHS, 2001). After interacting with individuals diagnosed with mental illness, Native Americans and whites reported a greater tolerance of people with mental illness, while African Americans, Latinos, and Asians reported less tolerance. The self-worth of family members and individuals diagnosed with mental illness is directly affected by the stigma of being labeled "crazy." Often, the intense stigma attached to mental illness prevents people, particularly those within minority groups, from receiving treatment for mental illness. However, cultural sensitivity and acknowledgement of cultural stigma associated with receiving mental health and substance abuse treatment services is helpful when relating to minority clients (HHS, 2001).

## *Culturally Appropriate Treatment Services*

Integrating fundamental parts of ethnic group culture, including styles of communication, value systems, historical background, and religious and traditional beliefs, are believed to increase the use of mental health services among minority clients. Researchers recognize that by adapting mental health treatment services to a client's familiar culture, potentially significant treatment outcomes may be realized (HHS, 2001). During the last decade, practitioners and other mental health care professionals began emphasizing the importance of delivering culturally competent mental health services while encouraging buy-in from minority consumers, families, and communities. For example, a noted culturally appropriate

mental health care service delivery model designed for children and adolescents with severe emotional disabilities concentrates on the strengths of ethnic groups' culture for effective service delivery (Cross, Bazron, Dennis, and Isaacs, 1989). Principal components involved in adapting this mental health care service delivery model include policy, training, resources, practice, and research.

Linguistic competence is equally significant in developing culturally appropriate treatment services. The National Center for Cultural Competence at Georgetown University defines linguistic competence as the "capacity of an organization and its personnel to communicate effectively and convey information in a manner that is easily understood by diverse audiences, including persons of limited English proficiency, those who have low literacy skills or are not literate, and individuals with disabilities. Linguistic competency requires organizational and provider capacity to respond effectively to the health literacy needs of populations served" (The National Center for Cultural Competence, 2006). For example, the bilingual website "Amigos" utilizes an electronic psychoeducational tool to help minorities access health-related resources (Guanipa, Nolte, and Lizarraga, 2002). Providing availability to computers, and educating the targeted community about mental health care and multiculturalism, was the objective of establishing "Amigos."By implementing electronic modalities similar to the "Amigos" program, minority groups may cautiously utilize culturally and linguistically competent mental health and substance abuse treatment services. Continuing research by practitioners and further development of culturally appropriate online interventions may encourage the use of E-therapy by minority populations.

## *Summary*

- Developing and testing the effectiveness of culturally appropriate online substance abuse treatment interventions requires buy-in from minority consumers, families, communities, and mental health professionals.
- Therapists should recognize that the historical discrimination that minority groups have experienced in encounters with the medical community and the resulting feelings of mistrust from these encounters may influence the willingness of individuals to seek mental health and substance abuse treatment.
- Poverty and limited access to technological resources may influence the utilization of E-therapy as a mainstream counseling option within some minority groups. In addition, consider that standard substance abuse curricula and general interventions may not necessarily provide the best treatment strategies for minority communities.
- Practitioners must recognize and emphasize the importance of providing culturally competent treatment services and integrate fundamental components of ethnic group culture, including communication styles and religious and traditional beliefs. Integrating these cultural components may increase the use of mental health services among minority clients.

## Legal and Regulatory Issues

The past several years have brought rapid changes to service delivery through the use of E-therapy. However, the development of laws and ethics codes governing its practice has lagged behind (Alleman, 2002; Barnett and Sheetz, 2003). Practitioners are required to adhere to their professional associations' codes of ethics. In addition, the license to practice necessitates following the requirements set forth by licensing boards. The increased use of E-therapy has led to many unanswered questions in terms of licensure, ethics, client protections, and practitioner protections. Each of these issues will be discussed in this section.

### *Licensure*

In most cases, the delivery of substance abuse treatment is regulated by the State in which practitioners serve clients. Regulations vary depending on the type of practitioner and the jurisdiction of practice. For this reason, most practitioners must be licensed in each State or province where they provide services within the "scope of practice" of that jurisdiction's license (Mallen, Vogel, and Rochlen, 2005). The conduct of E-therapy complicates this issue, as most forms of electronic service delivery can easily occur across jurisdictional lines. This presents legal challenges that have not been clarified to date (Barnett, 2005; Darkins and Cary, 2000). For example, practitioners providing treatment to clients outside of the State in which they are licensed may be practicing outside of the "scope of practice" for their licenses. As a result, these practitioners may be in violation of the rules set forth by their respective licensing boards and liable for any harm to clients (A. K. Burlew, personal communication, Aug. 28, 2006; Recupero and Rainey, 2005). In addition, with a practitioner-client relationships formed across jurisdictional lines, it is unclear which region's regulations take precedence (Manhal-Baugus, 2001).

To date, California has passed the most comprehensive legislation related to the conduct of E-therapy (National Conference of State Legislatures [NCSL], 2005). According to a component of the California Telemedicine Act, only clinical psychologists or medical doctors licensed in the State of California can administer E-therapy to clients who are State residents (Manhal-Baugus, 2001). As of September 2005, approximately 18 States had enacted legislation related to the use E-therapy for treatment purposes. In addition, several of these states, including Arizona, Montana, Vermont, and West Virginia, had established laws similar to California's in terms of the practice of E-therapy. In addition, Montana and Puerto Rico require a special license to practice E-therapy within their jurisdictions (NCSL, 2005).

The need for the clarification of jurisdictional licensing issues is evident. To alleviate complications, many practitioners specializing in substance use disorder treatment and E-therapy endorse the formation of a national licensing system or reciprocal licensing among jurisdictions (Alleman, 2002; Manhal-Baugus, 2001; G. Stofle and E. Singleton, personal communication, Aug. 28, 2006; Terry, 2002). In addition, some licensing boards are working toward license reciprocity, which would alleviate a number of issues related to practicing in multiple States (Mallen, et al., 2005).

Until such legislation is passed, field experts recommend that practitioners provide services only in jurisdictions in which they are licensed to practice (Barnett, 2005; Barnett and Scheetz, 2003; CSAT E-Therapy Expert Panel Work Group Meeting, Aug. 28, 2006). It is also important for practitioners to know where their clients reside, to ensure that they are not in violation of any regulations. Experts further advise that practitioners be completely aware of the parameters under which they are permitted to practice E-therapy in their respective

jurisdictions and the areas in which their clients reside (Barnett, 2005; Gluekauf, Pickett, Ketterson, Loomis, and Rozensky, 2003).

## *Ethics*

Because E-therapy is a relatively new field, there are few ethical codes that relate specifically to providing services electronically. Further, there is no consensus as to whether or not separate ethical guidelines for online practice are necessary (Ragusea and VandeCreek, 2003). It should be noted that the potential for ethical violations is high due to limited privacy, varied locations of participants, and the inability (in many cases) to confirm the identity of clients (Castelnuovo, et al., 2003).

While a few organizations have ethics codes created specifically for E-therapy, others have adapted their existing codes of ethics to include electronic communication. For example, the American Counseling Association, the American Psychological Association, and the National Board of Certified Counselors have revised their ethics codes to include E-therapy (American Psychological Association, 2002; Manhal-Baugus, 2001). Specifically, the codes were changed to address concerns about confidentiality, informed consent, licensure, and emergency procedures.

In 2000, the International Society for Mental Health Online approved a set of suggested principles of practice for those providing E-therapy (ISMHO, 2000). These principles address informed consent, standard operating procedure, and emergencies and seek to mediate a number of ethical issues related to providing E-therapy.

## *Client Protections*

Ensuring the protection of clients is key to successful service delivery. In terms of E-therapy, establishing and retaining such security requires the adherence to client privacy regulations, obtaining informed consent, and providing for clients in the event of emergency.

At the Federal level, the Health Information Portability and Protection Act (HIPAA) protects the transfer and sharing of client information. As most practitioners are keenly aware, this legislation requires client consent to release medical information, with some exceptions. This legislation also applies to the electronic transfer of medical records, and practitioners must adhere to specific guidelines when sharing client information (Maheu, et al., 2005). However, in some cases, State and local regulations may supersede HIPAA (McMenamin, personal communication, July 7, 2006). Practitioners should check the guidelines in their jurisdictions to verify their responsibility in terms of transferring client information.

An additional component to client protection is informed consent, which was established to protect the client's right to participate in treatment (Recupero and Rainey, 2005). As is the case with any form of treatment, clients are required to be provided with the following information, in accordance with applicable regulations:

- The treatment process or procedure
- Benefits associated with the treatment or procedure;
- Risks associated with the treatment procedure;
- Actions taken to prevent client risk
- Procedures for emergencies.

It is recommended that practitioners provide this information to clients prior to initiating treatment. Further, clients should have the opportunity to assert their understanding of the information provided to them (Recupero and Rainey, 2005).

In addition, ISMHO offers the following considerations for the provision of E-therapy, to be shared with potential clients prior to administering treatment:

- The possibility of misunderstandings, particularly with text-based forms of E-therapy, because there are no nonverbal cues to inform the communication
- The increased response time involved in asynchronous forms of communication
- The average time needed to provide the client with a response for asynchronous forms of communication
- The counselor's right to privacy and the possibility of restrictions on the client's use of any communication with the practitioner;
- The name and qualifications of the practitioner and how to confirm the information provided
- Alternatives to receiving assistance via E-therapy (ISMHO, 2000).

## *Practitioner Protections*

Practitioners of E-therapy must also be vigilant about their own protection. In particular, treatment providers must be aware of issues related to malpractice and privacy. In terms of malpractice, one of the biggest concerns is the inability to have consistent face-to-face contact with the client, except in cases where videoconferencing is used (Maheu, et al., 2001). Without initial face-to-face contact, inaccurate assessment or misdiagnosis is possible. For this reason, an initial face-to-face consultation is recommended to facilitate accurate assessment and to determine the client's appropriateness for E-therapy (G. Stofle, personal communication, Aug. 28, 2006).

It is also important for practitioners to have malpractice insurance coverage in every jurisdiction relevant to their practice, as most clients will file a suit in their area of residence (Maheu et al., 2001). As was previously mentioned, most States require licensure in the State of practice and do not allow interstate treatment to occur on a regular basis. A malpractice suit filed in a State other than that of the practitioner would prove detrimental to further practice without the proper licensure and insurance coverage.

Practitioners have the right to privacy in a manner similar to clients, but they are not protected by regulations. The provision of E-therapy complicates the practitioner's ability to maintain his or her confidentiality when using text-based forms of communication, as the client also has a record of the exchange (Alleman, 2002). Nonetheless, as was previously mentioned, the practitioner should inform the client of his or her right to privacy.

## *Summary*

- Most practitioners must be licensed in each State or province where they provide services within the "scope of practice" of that jurisdiction's license. The conduct of E-therapy complicates this issue, as most forms of electronic service delivery can easily cross jurisdictional lines.
- As of September 2005, approximately 18 States had enacted legislation related to the use of E-therapy for treatment purposes. Laws in Montana and Puerto Rico require a special license to practice E-therapy within their jurisdictions.

- Experts recommend that practitioners provide services only in jurisdictions where they are licensed to practice and that they know where their clients reside to ensure that they are not in violation of any regulations.
- Service providers should be completely aware of the parameters under which they are permitted to practice E-therapy in their respective jurisdictions, as well as the areas in which their clients reside.
- In terms of E-therapy, establishing and retaining client protections requires adherence to local, State, and Federal client privacy regulations, obtaining informed consent, and providing resources for clients in the event of emergency.
- Practitioners have the right to privacy in a manner similar to clients, but they are not protected by regulations.

# Administrative Issues

## *Introduction*

Traditional face-to-face therapy requires standard confidentiality and privacy measures (Maheu, et al., 2001; Stofle, 2001). Specifically, practitioners must ensure that HIPAA regulatory procedures and codes of conduct are followed. In addition, providing E-therapy services involves implementing electronic safeguards to prevent hackers from accessing patient records and to prevent computer viruses from corrupting electronic data (Zack, 2004). Several different security options are available to practitioners and clients for maintaining a secure computer network. For a licensed therapist practicing E-therapy, experts recommend securing clients' electronic records by utilizing password protection programs, computer network firewalls, wiping software, and document encryption. Critical administrative responsibilities include maintaining accurate billing statements, properly secured client files, and reliable technical support (Zack, 2004). Each of these topics will be explored in this section.

## *Electronic Security Measures*

### Password Protection Programs

When selecting a password, computer specialists suggest using a short phrase that is at least eight characters long (Zack, 2004; Stofle, 2001). Randomly selecting a variation of numeric, nonalphanumeric, lower and uppercase characters will increase the degree of difficulty in guessing the password. Also, automatic screen savers provide additional security to password protection software by appearing within a few minutes on the computer screen when the computer is not in use. In the case of illness or disability, online therapists recommend writing down the computer password and storing it in a safe deposit box. Providing a trusted colleague with instructions on how to access the stored computer password if an emergency occurs is encouraged.

### Computer Network Firewalls

Further computer network security measures are attainable by installing firewall software or specialized hardware equipment. Firewalls allow the computer owner to filter selected information from the Internet through their personal computer network. Unwelcome electronic solicitations are significantly decreased with firewall protection. In addition, a network router operating between the cable/DSL modem can be adapted to encode identified data from the Internet to the owner's personal computer (Maheu, et al., 2005).

### Wiping Software

Wiping software is designed to overwrite computer hard drives with a haphazard series of zeros and ones. Information technology experts recommend wiping the computer hard drive before selling a used computer and discarding used floppy disks and CD-ROMs. For therapists providing E-therapy services, "wiping" ensures permanent deletion of client files and an additional layer of computer security before disposing of a computer that was used for E-therapy (Zack, 2004).

### Document Encryption

Another method used to protect online counseling transmittals is document encryption. Encryption involves deliberately scrambling the text of a document by devising a basic

mathematical equation and an unusual “key” and then applying the equation to the document. The scrambled text is readable after a second mathematical equation and unusual “key” are applied to the document.
Options include symmetric encryption and public key encryption. Both are used to encrypt confidential documents (Maheu, et al., 2001; Zack, 2004). Symmetric encryption requires one key to encode and decode a confidential file. Notably, symmetric encryption proves to be an effective security measure, because without the decryption key the message remains unreadable to a potential computer hacker. Public key encryption consists of a public and private key set. Anyone may access the public key necessary to e-mail a therapist an encrypted message; however, only the therapist may decrypt and read the message by using a private key. Public keys are posted on websites or e-mailed to clients, while private keys are password protected and located on the practitioner’s personal computer (Maheu, et al., 2005; Zack, 2004).

## *Administrative Responsibilities*

### Billable Services

Medicare deemed online videoconferencing billable in October 2001 (Maheu, et al., 2001). Similar reimbursement rates for face-to-face counseling would be applicable to synchronous or asynchronous videoconferencing. However, health insurance companies do not cover text-based therapy. Therefore, clients utilizing text-based counseling services must pay the practitioner directly, usually by credit card. To alleviate confusion over payment responsibilities, therapists should explain the reimbursement restrictions surrounding text-based therapy to potential clients (Zack, 2004; Stofle, 2001).

### Client Records

Regulatory procedures require practitioners to obtain and securely store client paper records. Likewise, electronic client files and online communications are protected by similar stringent privacy and confidentiality polices (Zack, 2004). Undoubtedly, health care organizations report that the most obvious threat to electronic patient files is computer hackers. Within larger health care agencies, client records tend to be more vulnerable to security breaches. Unfortunately, careless employees pose a risk to exposing confidential patient information. Employees may print clients’ records on unsecured copiers, leave private records unattended, select easy computer passwords, or talk to coworkers about client information (Maheu, et al., 2005). However, practitioners and health care employees are responsible for practicing ethical behavior in the workplace and so they must ensure that patient information is properly secured.

### Technical Support

Experienced online therapists recommend investing in a reliable, 24-hour computer technical support service. Usually, computer companies offer technical support services along with the purchase of the computer.

## *Summary*

- Overall, the implementation of effective electronic security measures and administrative responsibilities is critical to ensuring a confidential and client-friendly online counseling atmosphere.

- Effective security measures to prevent unauthorized access to confidential information and to establish a secured computer network include installing firewalls, using wiping software to erase clients' electronic records when disposing of an old computer, and utilizing document encryption.
- Choosing simple words, phrases, or names of family members for computer passwords is risky and does not provide the security that is required to protect clients' electronic flies. Selecting unusual words or odd groupings of numbers and letters offers an increased level of security.
- Maintaining strict confidentiality when handling client files is paramount. Observing HIPAA regulatory procedures and codes of conduct is essential when practicing E-therapy.

# References


Alemi, F., Stephens, R., Parran, T., Llorens, S., Bhatt, P., Ghadiri, A., et al. (1994). Automated monitoring of outcomes: Application to treatment of drug abuse. *Medical Decision Making, 14,* 180–187.

Alleman, J. R. (2002). Online counseling: The internet and mental health treatment. *Psychotherapy: Theory, Research, Practice, Training, 39,* 199–209.

American Psychological Association. (2002). *Ethical principles of psychologists and codes of conduct.* Retrieved January 15, 2007, from http://www.apa.org/ethics/code2002.html

Amigos. (1996). Retrieved March 23, 2007, from http://edweb.sdsu.edu/people/cguanipa/amigos

Baer, J. D., & Booher, J. (1994). The patch: A new alternative for drug testing in the criminal justice system. *Federal Probation, 58,* 29–33.

Barnett, J. E. (2005). Online counseling: New entity, new challenges. *The Counseling Psychologist, 33,* 872–880.

Barnett, J. E., & Scheetz, K. (2003). Technological advances and telehealth: Ethics, law, and the practice of psychotherapy. *Psychotherapy: Theory, Research, Practice, Training, 40,* 86–93.

Basham, R. B. (1986). Scientific and practical advantages of comparative design in psychotherapy outcome research. *Journal of Consulting and Clinical Psychology, 54*, 8–94.

Begg, C. B. (2000). Ruminations on the intent-to-treat principle. *Controlled Clinical Trials, 21,* 241–243.

Botella, C., Baños, R. M., Villa H., Perpiña, C., & Garcia-Palacios, A. (2000). Virtual reality in the treatment of claustrophobic fear: A controlled, multiple-baseline design. *Behaviour Therapy, 31,* 583-595.

Bouchard, S., Payeur, R., Rivard, V., Allard, M., Paquin, B., Renaud, P., & Goyer, L. (2000). Cognitive behavior therapy for panic disorder with agoraphobia in videoconference: Preliminary results. *CyberPsychology & Behavior, 3*, 999-1007.

Brodey, B. B., Rosen, C. S., Brodey, I. S., Sheetz, B. M., Steinfeld, R. R., & Gastfriend, D. R. (2004). Validation of the Addiction Severity Index (ASI) for internet and automated telephone self-report administration. *Journal of Substance Abuse Treatment, 26,* 253–259.

Brown, F. W. (1998). Rural telepsychiatry. *Psychiatric Services, 49,* 963–964.

Brown, H. (2000). Accessibility and usability of information technology by the elderly. Unpublished paper, Department of Computer Sciences, University of Maryland, College Park.

Bush, N. E., Bowen, D. J., Wooldridge, J., Ludwig, A., Meischke, H., & Robbins, R. (2004). What do we mean by internet access? A framework for health researchers. *Preventing Chronic Disease, 1*, 1–23. Retrieved December 12, 2006, from http://www.cdc.gov/pcd/issues/2004/oct/04_0019.htm

Castelnuovo, G., Gaggioli, A., Matonvani, F., & Riva, G. (2003). From psychotherapy to e-therapy: The integration of traditional techniques and new communication tools in clinical settings. *CyberPsychology & Behavior, 6,* 375–382.

Castro, F. G., Proescholdbell, R. J., Abeita, L., & Rodriguez, D. (1999). Ethnic and cultural minority groups. In B. S. McCrady & E. E. Epstein (Eds.), *Addictions: A comprehensive guidebook*. New York: Oxford University Press.

Chavez, N., & DeLeon, P. H. (1997). Serving the underserved: Our societal responsibility. *Professional Psychology, Research and Practice, 3*, 203–204.

Center for Substance Abuse Treatment. (2003). *Senate Report 107–216.* Departments of Labor, Health and Human Services, and Education, and Related Agencies Appropriation Bill.

Coogle, C. L., Osgood, N. J., Parham, I. A., Wood, H. E., & Churcher, C. S. (1995). The effectiveness of videoconferencing in geriatric alcoholism education. *Gerontology and Geriatrics Education, 16,* 73–77.

Copeland, J., & Martin, G. (2004). Web-based interventions for substance use disorders: A qualitative review. *Journal of Substance Abuse Treatment, 26*, 109-116.

Curry, S. J., Ludman, E. J., Grothaus, L. C., Donovan, D., & Eleanor, K. (2003). A randomized trial of a brief primary-care-based intervention for reducing at-risk drinking practices. *Health Psychology, 22,* 156–165.

Cross, T., Bazron, B. J., Dennis, K. W., & Isaacs, M. R. (1989). *Toward a culturally competent system of care: A monograph on effective services for minority children who are severely emotionally disturbed.* Washington, DC: Georgetown University Child Development Center.

Darke, S. (1998). Self-report among injecting drug users: A review. *Drug & Alcohol Dependence, 51,* 253–263.

Darkins, A. W., & Cary, M. A. (2000). *Telemedicine and telehealth.* New York: Springer Publishing Company, Inc.

Davis, K. (1997). Race, health status and managed care. In L. Epstein & F. Brisbane (Eds.), *Cultural competence series.* Rockville, MD: Center for Substance Abuse Prevention.

Day, S. 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.

Departments of Labor, Health and Human Services, and Education, and Related Agencies Appropriation Bill, S. Rep. No. 107-216 (2003).

Duran, B., Bulterys, M., Iralu, J., Edwards, G. A., & Harrison, M. (2000). American Indians with HIV/AIDS: Health and social services needs barriers to care, and satisfaction with services among a western tribe. *American Indian and Alaskan Native Mental Health Research,* 9 (2), 22-35. Retrieved January 4, 2007, from http://web.ebscohost.com/

eGetgoing (2005). How online addiction treatment works. Retrieved March 23, 2007, from http://www.egetgoing.com/

Elleven, R. K., & Allen, J. (2004). Applying technology to online counseling: Suggestions for the beginning e-therapist. *Journal of Instructional Psychology, 31,* 223–227.

Fenichel, M. (2000). Online therapy. Retrieved January 7, 2007, from http://www.fenichel.com/OnlineTherapy.shtml

Field, M. J. (Ed.). (1996). *Telemedicine: A guide to assessing telecommunications in health care*. Washington, DC: Institute of Medicine.

French, M. T. (1995). Economic evaluation of drug abuse treatment programs: Methodology and findings. *American Journal of Drug and Alcohol Abuse, 21*, 111–135.

Gamm, L. D. (2004). Mental health and substance abuse services among rural minorities. *The Journal of Rural Health, 20,* 206-209.

Gibson. S.F., Morley, S., & Romeo-Wolff, C. (2002). A model community telepsychiatry program in rural Arizona. In R.C. Hsiung (Ed.), *e-Therapy: Case studies, guiding principles, and the clinical potential of the internet.* (pp.69-91). New York: W.W. Norton & Company.

Glueckauf, R.L., Pickett, T.C., Ketterson, T.U., Loomis, J.S., & Rozensky, R.H. (2003). Preparation for the delivery of telehealth services: A self-study framework for expansion of practice. *Professional Psychology: Research and Practice, 34,* 159-163.

Glueckauf, R. L., Whitton, J., & Nickelson, D. W. (2001). Telehealth: The new frontier in rehabilitation and healthcare. In M. J. Scherer (Ed.), *Assistive technology: Matching device and consumer for successful rehabilitation*. Washington, DC: American Psychological Association.

Gray, K. M., Upadhyaya, H. P., Deas, D., & Brady, K. T. (2006). Advances in diagnosis of adolescent substance abuse. *Adolescent Medicine Clinics, 17,* 411–425.

Guanipa, C., Nolte, L. M., & Lizarraga, J. (2002). Using the internet to help diverse populations: A bilingual website. *Journal of Technology in Human Services, 19,* 13–23.

Harris K. M., Edlund, M. J., & Larson, S. (2005). Racial and ethnic differences in the mental health problems and use of mental health care. *Medical Care, 43*, 775-84.

Hartz, D. T., Banys, P., Hall, S. M., & Frazer, J. (1994). CRIS: A clinical research information system for substance abuse services at VA medical center. *MD Computing, 11,* 219–222.

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(4),* 686-693.

International Society for Mental Health Online. (2000). *Suggested principles for the online provision of mental health services.* Retrieved February 9, 2007, from http://www.ismho.org/suggestions.html

International Society for Mental Health Online (ISMHO) Clinical Study Group. (2002). Assessing a person's suitability for online therapy: The ISMHO clinical case study group. *CyberPsychology & Behavior, 4,* 675–679.

Jackson, J. E. (1995). A survey of a Canadian on-line substance abuse prevention initiative for adolescents and young adults. *Journal of Telemedicine and Telecare, 1,* 217–223.

Jerrell, J. M., & Wilson, J. L. (1997). Ethnic differences in the treatment of dual mental and substance disorders. *Journal of Substance Abuse Treatment, 14,* 133–140.

Kazdin, A. E. (1986). Comparative outcome studies of psychotherapy: Methodological issues and strategies. *Journal of Consulting and Clinical Psychology, 54*, 95–105.

Kedzior, K. K., Badcock, J. C., & Martin-Iverson, M. T. (2006). Validity and consistency of self-reports regarding substance use in general research volunteers, including regular cannabis users and schizophrenia patients. *Substance Use & Misuse, 41,* 743–750.

Kypri, K., Saunders, J. B., Williams, S. M., McGee, R. O., Langley, J. D., Cashell-Smith, M. L., & Gallagher, S. (2004). Web-based screening and brief intervention for hazardous drinking: A double-blind randomized controlled trial. *Addiction, 99,* 1410–1417.

Laforge, R. G., Borsari, B., & Baer, J. S. (2005). The utility of collateral informant assessment in college alcohol research: Results from a longitudinal prevention trial. *Journal of Studies on Alcohol, 66,* 479–487.

Levin, J. S. (1986). Roles for the black pastor in preventive medicine. *Pastoral Psychology, 35(2),* 94-103.

Maheu, M. M. (2001). Exposing the risk, yet moving forward: A behavioral e-health model. *Journal of Computer-Mediated Communication.* Retrieved November 20, 2008, from http://jcmc.indiana.edu/vol6/issue4/maheu.html

Maheu, M. M. (2003). The online clinical practice management model. *Psychotherapy: Theory, Research, Practice, Training, 40,* 20-32.

Maheu, M. M., Pulier, M. L., Wilhelm, F. H., McMenamin, J. P., & Brown-Connolly, N. E. (2005). *The mental health professional and the new technologies.* Mahwah, NJ: Lawrence Erlbaum Associates.

Maheu, M. M., Whitten, P., & Allen, A. (2001). *E-health, telehealth, and telemedicine: A guide to start-up and success.* San Francisco: Jossey-Bass Inc.

Mallen, M. J., & Vogel, D. L. (2005). Counseling psychology and online counseling. *The Counseling Psychologist, 33*, 761–775.

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.

Manhal-Baugus, M. (2001). E-Therapy: Practical, ethical, and legal issues. *CyberPsychology & Behavior, 4,* 551–563.

Marbella, A., Harris, M., Diehr, S., Ignace, G., & Ignace, G. (1998). Use of native American healers among native American patients in an urban native American health center. *Archive of Family Medicine, 7*, 82-185.

McAuliffe, W. E., & Dunn, R. (2004). Substance abuse treatment needs and access in the USA: Interstate variations. *Addiction, 99,* 999–1014.

McAuliffe, W. E., LaBrie, R., Woodworth, R., Zhang, C., & Dunn, R. P. (2003). State substance abuse treatment gaps. *The American Journal on Addictions, 12*, 101–121.

McCabe, S. E., Boyd, C. J., Cranford, J. A., Morales, M., & Slayden, J. (2006). A modified version of the Drug Abuse Screening Test among undergraduate students. *Journal of Substance Abuse Treatment, 31,* 297–303.

Moher, D., Cook, D. J., Eastwood, S., Olkin, I., Rennie, D., & Stroup, D. F. (1999). Improving the quality of reports of meta-analyses of randomized controlled trials: The QUOROM statement. *Lancet, 354,* 1896–1900.

Murdoch, J. W. & Connor-Greene, P.A. (2000). Enhancing therapeutic impact and therapeutic alliance through electronic mail homework assignments. *Journal of Psychotherapy and Practice Research, 9,* 233-237.

National Center for Cultural Competence. (2006). *Linguistic competence.* Retrieved January 23, 2007, from http://www11.georgetown.edu/research/gucchd/nccc/

National Conference of State Legislatures. (2005). *Telemedicine legislation.* Retrieved February 8, 2007, from http://www.ncsl.org/programs/health/teleg.htm

National Institute on Alcohol Abuse and Alcoholism. (n.d.). *College drinking prevention E-cards*. Retrieved December 20, 2006, from http://www.collegedrinkingprevention.gov/CollegeStudents/ecards/default.aspx

National Institute on Drug Abuse. (n.d.) *NIDA for teens: The Ssience behind drug abuse.* Retrieved December 20, 2006, from http://teens.drugabuse.gov/about.asp

O'Leary, K. D., & Borkovec, T. D. (1978). Conceptual, methodological, and ethical problems of placebo groups in psychotherapy research. *American Psychologist, 33*, 821–830.

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

Power, E. J., Nishimi, R. J., & Kizer, K. W. (Eds.). (2005). Evidence-based treatment practices for substance use. *National Quality Forum Workshop Proceedings.* Washington, DC: National Quality Forum.

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

Recupero, P. R., & Rainey, S. E. (2005). Informed consent to e-therapy. *American Journal of Psychotherapy, 59,* 319–331.

Reis, J., & Riley, W. (2002). Assessment of a computer-supported alcohol education intervention program. *Health Education, 102,* 124–132.

Risser, A. L., & Mazur, L. J. ( 1995). Use of folk remedies in a Hispanic population. *Archives of Pediatric Adolescent Medicine, 149,* 978-981.

Rubin, A., Migneault, J. P., Marks, L., Goldstein, E., Ludena, K., & Friedman, R.H. (2006). Automated telephone screening for problem drinking. *Journal of Studies on Alcohol, 67*, 454–457.

San Diego State University Research Foundation. (2004). *e-Toke.* Retrieved March 23, 2007, from http://www.e-toke.com/info/?p=home.php

San Diego State University Research Foundation. (2006). *e-Chug.* Retrieved March 23, 2007, from http://www.e-Chug.com/

Stanford University School of Medicine. (2007). *Behavioral medicine multi-media laboratory.* Retrieved March 23, 2007, from http://bml.stanford.edu/multimedia_lab/

Sanchez-Page, D. (2005). The online-counseling debate: A view toward the underserved. *The Counseling Psychologist, 33,* 891–899.

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. *Journal of Studies on Alcohol, 65,* 443–449.

Secades-Villa, R., & Fernandez-Hermida, J. R. (2003). The validity of self-reports in a follow-up study with drug addicts. *Addictive Behaviors, 28,* 1175–1182.

Skinner, H., Biscope, S., Poland, B. & Goldberg, E. (2003). How adolescents use technology for health information: Implications for health professionals from focus group studies. *Journal of Medical Internet Research, 5,* 1-10. Retrieved January 7, 2007, from http://www.jmir.org/

Smith, G. L., & Keliy, K. J. (2002). Utilizing technology: The challenges and opportunities facing "substance abuse" professionals in rural communities. *Substance Use & Misuse, 37,* 5–7.

Smith, H. A., & Allison, R. A. (1998). Telemental health: *Delivering mental health care at a distance.* Unpublished summary report, U.S. Department of Health and Human Services, Office for the Advancement of Telehealth, Rockville, MD.

Stofle, G. S. (2001). *Choosing an online therapist*. Harrisburg, PA: White Hat Communications.

Stofle, G. S. (2004). Addiction treatment online. *Behavioral Health Management, 24,* 53–55.

Substance Abuse and Mental Health Services Administration. (2006). *Results from the 2005 national survey on drug use and health: National findings* (HHS Publication No. SMA 06-4194). Rockville, MD: Author.

Suler, J. (2000). Psychotherapy in cyberspace: A five dimensional model of online and computer-mediated psychotherapy. *The psychology of cyberspace.* Retrieved October 2, 2006, from http://www.rider.edu/~suler/psycyber/therapy.html

teenGetgoing (2001). Retrieved March 23, 2007, from https://www.teengetgoing.com/index.asp

Terry, N. P. (2002). Legal ethics in on-line mental health. In R.C. Hsiung (Ed.), *e-Therapy: Case studies, guiding principles, and the clinical potential of the internet.* New York: W.W. Norton & Company.

University of Colorado at Denver and Health Sciences Center. (2006). *Center for native American telehealth and tele-education.* Retrieved March 23, 2007 from http://aianp.uchsc.edu/cnatt/cnatt_index.htm

U.S. Department of Health and Human Services. (2001). *Mental health: Culture, race, and ethnicity. A supplement to mental health: A report of the Surgeon General*. Rockville, MD: Author.

U.S. Department of Health and Human Services. (2005). *Substance abuse treatment for persons with co-occurring disorders.* Treatment Improvement Protocol (TIP) Series 42. (HHS Publication No. SMA 05-3992). Rockville, MD: Author.

Vallejo, M. A., Jordán, C. M., Diáz, M. I., Comeche, M. I., & Ortega, J. (2007). Psychological assessment via the internet: A reliability and validity study of online (vs. paper-and-pencil) versions of the General Health Questionnaire-28 (GHQ-28) and the Symptoms Check-List-90-Revised (SCL-90-R). *Journal of Medical Internet Research, 9*, 1–10. Retrieved February 1, 2007, from http://www.jmir.org/2007/1/e2/

Vaughn-Sarrazin, M. S., Hall, J. A., & Rick, G. S. (2000). Impact of case management on use of health services by rural clients in substance abuse treatment. *Journal of Drug Issues, 30,* 435–463.

Walls, M. L., Johnson, K. D., Whitbeck, L. B., & Hoyt, D. R. (2006). Mental health and substance abuse services preferences among American Indian people of the northern midwest. *Community Mental Health Journal, 42,* 521-535.

Walters, S. T., Vader, A. M., & Harris, T. R. (in press). A controlled trial of web-based feedback for heavy drinking college students. *Prevention Science.*

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

Watson, R., Stimpson, A., & Hostick, T. (2004). Prison health care: A review of the literature. *International Journal of Nursing Studies, 41*, 119–128.

Wells, K., Klap, R., Koike, A., & Sherbourne, C. (2001). Ethnic disparities in unmet need for alcoholism, drug abuse, and mental health care. *American Journal of Psychiatry, 158*, 2027-2032.

Winhusen, T. M., Somoza, E. C., Singal, B., Kim, S., Horn, P. S., & Rotrosen, J. (2003). Measuring outcome in cocaine clinical trials: A comparison of sweat patches with urine toxicology and participant self-report. *Addiction, 98,* 317–324.

The Woman's Heart. (2004). Retrieved March 23, 2007, from http://www.thewomansheart.org/

World Health Organization. (2000). *Evaluation of psychoactive substance use disorder treatment. Workbook 7: Outcome evaluations.* Geneva, Switzerland: Author.

World Health Organization ASSIST Working Group. (2002). The Alcohol, smoking and substance involvement screening test (ASSIST): Development, reliability and feasibility. *Addiction, 97,* 1183–1194.

Yager, J. (2002). Using E-mail to support the outpatient treatment of anorexia nervosa. In R. C. Hsiung (Ed.), *e-Therapy: Case studies, guiding principles, and the clinical potential of the internet* (pp. 39-68). New York, NY: W.W. Norton & Company.

Yates, B. T. (1999). *Measuring and improving cost, cost-effectiveness, and cost-benefit for substance abuse treatment programs: A manual.* Bethesda, MD: National Institute on Drug Abuse.

Young, J. L., Griffith, E. E. H., & Williams, D. R. (2003). The integral role of pastoral counseling by African American clergy in community mental health. *Psychiatric Services 54*, 688–692.

Zack, J. S. (2004). Technology of online counseling. In R. Kraus, J. Zack, & G. Stricker (Eds.), *Online counseling: A handbook for mental health professionals* (pp. 112–115). San Diego, CA: Elsevier Academic Press.

Zhang, A. Y., Snowden, L. R., & Sue, S. (1998). Differences between Asian and white Americans' help seeking and utilization patterns in the Los Angeles area. *Journal of Community Psychology, 26,* 317–326.

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# Selected E-Therapy Model Programs

## *Screening, Brief Intervention, Referral, and Treatment College and University Grantees*

**University of Massachusetts at Amherst's** "Enhancing Services for College Students Using BASICS for High-Risk Drinkers" is an evidence-based intervention designed to reduce high-risk drinking and associated consequences among undergraduate students. Assessments are conducted over a secure website and include questions adapted from the Daily Drinking Questionnaire, Frequency Quantity Questionnaire, Readiness to Change, Family History Questionnaire, and the Boston University School of Public Health Survey. Project director: Diane Fedorchak (dfedorchak@uhs.umass.edu).

**University of Tennessee's** "Using Computers to Screen and Provide Brief Interventions for Underage Alcohol/Substance Abuse on College Campuses" is a prevention and early intervention program aimed at preventing the spread of substance abuse, specifically alcohol, Ecstasy, and other club drugs, among the University of Tennessee's undergraduate population. Students are offered the option of participating in this program when they open their University e-mail accounts. Project director: John Wodarski (jwodarsk@utk.edu).

**University of Hartford's** Project OASIS (Outreach and Action for Students Improvement Services) is collaboration between the University of Hartford and Connecticut Renaissance, Inc. to provide substance abuse intervention to students. Project staff conducts the intake and assessments processes using the Integrated Service System Program. Followup includes a written plan; regular telephone, e-mail, and/or postal mail contact; and the formation of an alumni group to provide ongoing peer support to new participants. Project director: Susan Fitzgerald (fitzgeral@hartford.edu).

**New Mexico Highlands University** collaborates with the Sangre de Cristo Community Health Partnership to provide screening, brief intervention, and referral to treatment (SBIRT) services to freshmen, athletes, and students referred by student services personnel, residence hall assistants, and campus security. Students are recruited for screening and brief intervention from the Freshman Experience Class, athletics programs, residence hall, wellness center, and other venues. Students meet with a wellness advisor and complete an online version of the e-CHUG (**e**lectronic **C**heck-**U**p to **G**o) or the e-TOKE (**e**lectronic **T**HC **O**nline **K**nowledge **E**xperience) for marijuana users. All students who present at the Student Health Center or who are referred there due to alcohol or drug use infractions are administered the Healthy Lifeways Questionnaire screening tool and are offered brief intervention, brief treatment, or referral to specialty treatment by an onsite behavioral health consultant. Project director: Judy Cordova (jcordova@nmhu.edu).

**University at Albany, State University of New York** expands its capacity to provide screening and brief intervention to high-risk drinkers and creates an environment that supports reduced drinking rates and increased health behaviors. Licensed university health center personnel, including physicians, nurse practitioners, and physician's assistants, conduct screenings using the Alcohol Use Disorder Identification Test (AUDIT), which is incorporated into the student health screening completed for all students seeking services at the university health center. Students log on to a secure website to enroll in the project and complete

questionnaires; data from the questionnaires are downloaded to a spreadsheet and used to create a personalized feedback sheet. Students are then e-mailed a link to complete follow-up assessment questionnaires. Project director: Maria Cimini (dcimini@uamail.albany.edu).

## *Screening, Brief Intervention, Referral, and Treatment State Cooperative Agreement*

The **New Mexico Office of the Governor** (NM SBIRT) expands on the current delivery system within the Sangre de Cristo Community Health Partnership to provide substance abuse services. Health care providers conduct screening using the Healthy Lifeways Questionnaire, which includes questions from the AUDIT, as well as questions about illegal drugs and prescription drugs. Since 2006, NM SBIRT has equipped, connected, and implemented 20 active telehealth sites in SBIRT partner settings throughout the state. SBIRT weekly staff meetings have been utilizing videoconferencing for supervision and training of behavior health consultants. Sangre de Cristo's SBIRT administration and management is also increasingly utilizing videoconferencing capability for program planning and meeting purposes with current and potential clinic partner sites. Project director: Elaine Benavidez (elaine.benavidez@state.nm.us).

## *Electronic Treatment Interventions*

**e-CHUG.** The e-CHUG (**e**lectronic **Ch**eck **U**p to **G**o) is an evidence-based, online alcohol intervention and personalized feedback tool developed by counselors and psychologists at San Diego State University. Drawing on the Motivational Interviewing and Social Norms feedback theories, e-CHUG is designed to motivate individuals to reduce their alcohol consumption by using personalized information about their own drinking and risk factors. Most campuses use the e-CHUG and e-TOKE (electronic THC Online Knowledge Experience) programs in multiple ways. Counseling and health professionals use these programs as a part of their assessment/intervention programs, as a part of educational sanctions for students involved in judicial incidents, and as part of alcohol awareness week programming. Students are encouraged to take the programs multiple times to track changes in their drinking and/or marijuana habits and risk factors. Some professors also ask students to take the assessments and write reflective essays as a part of their class assignments. See http://www.e-toke.com/info/?p=home.php.

**e-TOKE.** The **e**lectronic **T**HC **O**nline **K**nowledge **E**xperience (e-TOKE) is a marijuana-specific brief assessment and feedback tool designed to reduce marijuana use among college students. It was modeled after and created by the same team that designed the electronic Check Up to Go (e-CHUG). The e-TOKE is designed to motivate students to reduce their level of marijuana use by using personalized information about their own behavior and risk factors. See http://www.e-toke.com/info/?p=home.php.

**Native Telehealth Outreach and Technical Assistance Program.** The Native Telehealth Outreach and Technical Assistance Program (NTOTAP) transfers relevant technical knowledge and skills to American Indian communities. This program focuses on lay members of tribal communities—for example, village health aides and community health representatives—who have a paraprofessional-level of interest in telecommunication technologies and their application to outreach, health education, and prevention activities. In this instance, NTOTAP emphasizes the general principles behind the technologies, familiarity with operational aspects, independent as well as integrated applications, and examples of how

other communities have employed these technologies to address local health concerns. The Community Health Advocate (CHA) program is designed to be 12 months long, with monthly travel to Denver, CO, for intensive instruction and mentoring. The second program, the Community Health Professional (CHP) Program, focuses on health and educational professionals in tribal communities (for example, nurses, physicians, pharmacists, other ancillary health personnel, and tribal college faculty). This program includes the same emphases as the CHA program but builds upon them, enabling the health care professional to conceptualize, design, implement, and evaluate actual applications of their own invention (such as home-based, personal computer monitoring of diabetes self-management, tribal cable television health screening, or interactive CD-ROM youth suicide prevention guides for teachers). This program is designed to be 18 months long, with Denver-based instruction and mentoring. See http://aianp.uchsc.edu/cnatt/cnatt_index.htm.

**eGetgoing.com—Online Treatment for Adults.** This online treatment program provides real-time, interactive audio- and video-based alcohol and drug treatment. eGetgoing is ideal for anyone who is looking for an alternative to traditional treatment programs, who is unable to access traditional treatment programs, or who wants to strengthen recovery after completing a traditional treatment program. eGetgoing uses a proven treatment approach that is based on the 12-step philosophy, with sessions that present information on relapse prevention, the medical aspects of addiction, anger management, and other topics. Group members can talk with each other under the guidance of an experienced counselor. See http://www.egetgoing.com/addiction_treatment/online_addiction_treatment.asp.

**teenGetgoing.com—Online Treatment for Adolescents.** This online treatment program allows teens to join a live group with others who have similar problems due to alcohol and drug addiction. It is a group with other teens sharing experiences, opinions, and discussing specific topics. Online treatment allows teens to join a live group with others who have similar problems. The group meets online twice a week, working with the same counselor. The sessions include group discussions, informative slides, opinion polls, and videos, as well as personal time with the counselor. See https://www.teengetgoing.com/index.asp.

**The Woman's Heart.** By embracing technology, women can now reach out from their homes or any Internet-ready computer and help another woman bridge the gap and come home. The Woman's Heart enables a woman to find social connectedness and community integration, and even find a sponsor before she leaves treatment. She can also find the necessary therapy, education, health care, and local resources needed to help prevent relapse. Once a woman has chosen to be a member or a sponsor, she will enter the site and be given a personalized, private Home Page, an Inbox, and a calendar of events related to her interests. On the Woman's Heart website, she can begin searching by ZIP code for women in recovery, other members and sponsors, critically needed resources, health care information, and eLearning opportunities. Women will connect with each other via an intranet, with a mask and relay system that provides anonymity and privacy. They will be able to search the bios and the recovery stories of other women. Once a woman finds someone who interests her, or someone who she can identify with, she can start communicating via e-mail. Pictures and names are not used, only the criteria that each woman has chosen to disclose. http://www.thewomansheart.org/.

**Amigos.** Amigos is a website primarily of interest to ethnically diverse middle school and high school students, parents, teachers, and interested adults. The Amigos site consists of several components, including informational essays, resources for locating help, and personal stories and intergenerational experiences. The Amigos staff is eager to use ISDN-based

videoconferencing and other kinds of electronic collaboration with students, teachers, and others interested in ethnic diversity, culture shock, self-esteem, and other related topics. See http://edweb.sdsu.edu/people/cguanipa/amigos/index.html.

**Student Bodies.** Student Bodies is an online psychoeducational intervention designed to help women at risk for developing eating disorders adopt healthier dietary practices and improve their body satisfaction. This intervention is a joint project of the Behavioral Medicine Multimedia Laboratory and Stanford University Medical Media and Information Technology. Since 1995, Student Bodies has been evaluated with hundreds of high school and college students. The program has been found to help women develop healthier dietary practices and improve their body image. Student Bodies is currently being evaluated in a National Institute of Mental Health-sponsored, multisite, long-term trial to determine if the program's ability to reduce risk factors in students likely to develop eating disorders results in a reduction in the incidence of eating disorders. See http://bml.stanford.edu/multimedia_lab/**.**

**Bosom Buddies.** The Bosom Buddies program is a structured, 12-week moderated online support group for women with a diagnosis of primary breast cancer. This intervention is a joint project of the Behavioral Medicine Multimedia Laboratory and Stanford University Medical Media and Information Technology. It is designed to provide a forum where women can explore issues surrounding their diagnosis and offer each other information and emotional support. The group does not provide online psychotherapy, nor is it intended to replace professional treatment. Bosom Buddies is currently being evaluated in a clinical trial. In addition to looking at psychiatric outcomes, the program is investigating strategies for reducing moderator involvement and analyzing the content of group discussions. See http://bml.stanford.edu/multimedia_lab/.

**Northern Arizona Regional Behavioral Health Authority.** The Little Colorado Behavioral Health Centers utilize electronic treatment modalities to provide services to a remote county in northeastern Arizona. The Navajo Indian Reservation comprises 65 percent of the 11,216 square miles of this sparsely populated region. Because of its rural location, the Little Colorado Behavioral Health Centers had a difficult time recruiting and retaining qualified and experienced mental health care professionals. However, the Northern Arizona Regional Health Authority (NARBHA) telemedicine and videoconferencing network, located 3 hours away in Flagstaff, AZ, was identified as an appropriate and efficient tool for providing services to the clients of northeastern Arizona. NARBHA contracts with a network of community-based agencies that provide behavioral health services to adults, children, families, and people with serious mental illnesses in a 62,000-square-mile rural area with a population of 440,000. The system, NARBHA NET, uses advanced technology capable of delivering two-way interactive video and audio, tape recordings, and numerous computer applications. Twelve video conferencing sites (including the Arizona State Hospital in Phoenix) participate, with at least four additional sites planned. See http://www.narbha.org/for-providers/telemedicine/.

**The Appal-Link Network.** This health care system was created to improve access to psychiatric care in rural and remote areas of southwest Virginia. Funded as a 3-year Rural Health Outreach demonstration project by the Federal Office of Rural Health Policy, Appal-Link began operations in 1995. It is the first telepsychiatry network in Virginia and one of only six telemedicine networks in the nation dedicated exclusively to testing telecommunications technology to deliver mental health services at a distance. Originally, the program served clients of the Cumberland Mountain Community Services Board in Cedar Bluff who were hospitalized at the Southwest Virginia Mental Health Institute in Marion.

Within 2 years, all of the community service boards in the Institute's service area joined the network. The tele-mental health system uses compressed video and audio transmission over high-speed, enhanced telephone lines. See http://www.cmcsb.com/Appal.htm.

**Eastern Montana Telemedicine Network.** Telemedicine in eastern Montana began as a cooperative effort among health care providers to research the potential of using two-way, interactive videoconferencing to provide medical and mental health services throughout the region. Begun in 1993, the Eastern Montana Telemedicine Network (EMTN) has continued to expand its 11-site network providing a variety of clinical, educational, administrative, and community development services to the region. A grant from the U.S. Department of Agriculture's Rural Electrification Administration (REA), now the Rural Utilities Service (RUS), funded the equipment purchase for the original five sites. A 3-year Rural Telemedicine grant in 1994 from the Federal Office of Rural Health Policy allowed EMTN to expand. Tele-mental health services are the leading medical application from a wide array of other specialty areas that make EMTN one of the more comprehensive networks in the nation. See http://www.emtn.org/.

## Populations That Have Benefited from Electronic Treatment Interventions *(Selected Studies)*

| **Implementing E-Therapy in Special Populations** | | | | |
|---|---|---|---|---|
| | Population Type* | | | |
| Author(s), Year of Publication | Rural | American Indian/ Alaska Native | Elderly | Adolescents |
| Postel, M. G., de Jong C. J., & de Haan, H. A. (2005) | | | √ | |
| Brown, H. (2000) | | | √ | |
| Smith, H. A., & Allison, R. A. (1998) | √ | | √ | √ |
| Duran, B., Bulterys, M., Iralu, J., Edwards, G. A., & Harrison, M. (2000) | | √ | | |
| Kypri, K., et al. (2004) | | | | √ |
| McAuliffe, W. E., LaBrie, R., Woodworth, B. A., Zhang, C., & Dunn, R. P. (2003) | √ | √ | | |
| Guanipa, C., Nolte, L. M., & Lizarraga, J. (2002) | | | | √ |
| Gamm, L. D. (2004) | √ | | | |
| Skinner, H., Biscope, S., Poland, B., & Goldberg, E. (2003) | | | | √ |
| Walters, S. T., Miller, E., & Chiauzzi, E. (2005) | | | | √ |
| Bush, et al. (2004) | | | √ | |
| Mallen, M. J., Vogel, D. L., & Rochlen, A. B. (2005) | √ | | √ | |
| Sanchez-Page, D. (2005) | | | | √ |
| Brown, F. W. (1998) | √ | | | |

*Note: The populations for this table were selected to reflect the interests of CSAT.

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