Clinical Supervision in Rural Settings: A Telehealth Model

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The task of providing supervisory services to clinical interns, trainees, and new psychologists in rural settings is often complicated by a host of environmental and economic constraints. Given the re-emergence of telecommunication applications as a means of transcending similar obstacles in service delivery, the authors discuss the use of telecommunication technology as a means of enabling the traditional supervisor–supervisee relationship in settings in which face-to-face contact is difficult if not impossible. The evolution of telesupervision is discussed, followed by an outline of an integrated model of telesupervision and the goals, benefits, and challenges associated with the use of telecommunications technology in clinical supervision.

Keywords: rural, supervision, technology, telehealth, training

A relatively new clinical internship program in a rural setting sought to enhance its supervision for psychology interns and other health-related specialties by bringing in regionally recognized supervisors. The need to have a diverse group of supervisors available for interns became a high priority for the new director of clinical training (DCT). Distance, travel, and mountainous roads were a few of the barriers that supervisors encountered in providing weekly supervision. Given these obstacles, the opportunity to provide high-quality, accessible supervision appeared to be an insurmountable problem. Turning to a regional university, the director of training presented her problem to the university DCT. University faculty and staff were able to appreciate the nature of this situation because institutions of higher education have been struggling with matters of accessibility for several years (Conaway, 2002; Green, 2001). Within the university setting, the use of interactive television for education and distance learning was well recognized. The use of this technology for supervision with interns in both individual and group options had not been considered until the possibility was brought to the attention of the training director. The opportunity to implement interactive television as a part of the supervision experience, along with e-mail and other technological advancements, enabled the internship program to offer enriched experiences in rural practice by using available technological capabilities.

The challenges of providing clinical services in rural settings have been well documented for several decades (Stamm, 2003). As training programs seek to assist trainees and new psychologists in their acclimation to the distinctive characteristics of rural practice, providing adequate and quality clinical supervision has emerged as a significant concern. Because bridging the gap between rural trainees and urban supervisors can be complicated by geographic barriers, travel time, and distance, innovative methods of supervision are needed. The prior example helps to illustrate both the challenges faced by rural mental health facilities and potential strategies to address them through the use of telecommunication technology. Telehealth (the use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health and health administration) offers a partial solution to providing care to remote areas (Office for the Advancement of Telehealth, n.d.). Through its ability to negate many of the obstacles that frequently hinder supervision of interns and new practitioners in rural areas, the use of telecommunication technology to
deliver supervisory services can provide supervisees with a knowledge base and experiential alternatives previously deemed inaccessible.

The purpose of this article is to discuss the use of telecommunication technology as a means of enabling the traditional supervisor–supervisee relationship in settings in which face-to-face contact is difficult if not impossible. This discussion is prefaced by a brief review of the evolution of telesupervision, followed by an outline of an integrated model of telesupervision and the goals, benefits, and challenges associated with the use of telecommunication technology for clinical supervision.

The Evolution of Telesupervision

**Historical Development**

Early attempts to incorporate the use of technology into the supervision process were first documented in the 1950s and 1960s. These efforts included the use of bug-in-the-ear devices, observation by means of closed-circuit television, telephone consultation, and videotape review (Brooks & Hannah, 1966; Schiff & Reivich, 1964; Wetchler, Trepper, McCollum, & Nelson, 1993). Although exploration of telecommunication applications for supervision continued into the 1970s and early 1980s, because of a lack of technological infrastructure coupled with the high cost of more advanced equipment, the use of such technology was restricted to mainly military and federal programs. During the early 1990s, public and federal interest in the Internet spurred the development of quality low-cost telecommunication products. This, along with an increased demand for quality, efficient services, prompted a re-emergence of telecommunication technology in the public sector (Jerome, DeLeon, James, Folen, Earles, & Gedney, 2000; Nickelson, 1998).

**Current Trends**

With advances in telecommunication and computer technology, attention has focused on the utilization of these systems to augment supervisory communications. Currently, technology-mediated interactions between supervisors and therapists in training may transpire through the use of a variety of asynchronous, or “store-and-forward,” technologies (e.g., e-mail, facsimile, online information, digital video clips) or synchronous communications such as videoconferencing (Darkins & Carey, 2000; Stamm, 2003; Striefel, 2000).

**Asynchronous applications.** Aside from telephone contacts, e-mail is believed to be the most commonly used telecommunication application (Stamm, 2003). Clinicians currently use e-mail to supervise students during all levels of instruction, including predoctoral, internship, and postdoctoral work. As one of the first programs to adopt the use of e-mail for supervision, in the mid-1990s the Marshall University School of Medicine incorporated routine e-mail contact into the supervision component of training for students placed at rural clinics and hospitals (Stamm, 1999). Currently, the use of e-mail for supervisory activities is applied in a variety of disciplines such as psychology, psychiatry, nursing, and rehabilitation medicine (Gammon, Sorlie, Bergvik, & Hofodt, 1998; Lessing & Blignault, 2001; Liu & Miyazaki, 2000; Marrow, Hollyoake, Hamer, & Kenrick, 2002; Striefel, 2000).

**Synchronous applications.** The use of synchronous technology has also been explored as a medium for supervision. In a description of one of the first telehealth systems in Australia designed to offer integrated mental health services, Yellowlees and Kennedy (1996) reported the use of a PC-based videoconferencing system to provide clinical supervision for mental health staff. Primarily used by psychologists and psychiatrists, supervision included support for sole practitioners and new graduates. A more recent poll of telehealth activity in Australia found that 61% of telehealth programs used videoconferencing for professional supervision (Lessing & Blignault, 2001). Since the mid-1990s, attempts to implement telesupervision by means of videoconferencing have been piloted in various countries across the globe. For instance, videoconferencing has been used in rural Japan to provide support for physiotherapists (Jin, Ishikawa, Sengoku, & Ohyanagi, 2000), to supervise psychotherapy sessions conducted by trainees in isolated areas of Norway (Sorlie, Gammon, Bergvik, & Sexton, 1999), to support doctoral students conducting neuropsychological evaluations in Kansas (Troster, Paolo, Glatt, Hubble, & Koller, 1995), to provide clinical supervision to psychology interns in Connecticut (Chamberlain, 2000), and as a vehicle for consultation, supervision, and interdisciplinary collaboration among a variety of health and mental health care providers in Idaho (Telehealth Idaho, n.d.).

**Combined applications.** Although some telehealth programs may choose to focus on one type of technology for supervision, it is possible to incorporate a variety of telecommunication applications into the supervisory process. In one study involving remote supervision, Stamm (1998) discussed the use of telecommunication technology to deliver supervisory services to various clinical sites across the United States. Within the context of a national clinical trial designed to compare two forms of group treatment for posttraumatic stress disorder, remote telesupervision was used to standardize the psychotherapy and assessment regimen across clinical sites. The study involved 10 clinical sites staffed with a supervisory-level participating investigator, four therapists, two case managers, one clinical evaluator, and a research assistant trained in both psychology and technology. Throughout the duration of the study, four clinical supervisors were responsible for providing telesupervision to 80 supervisees. A combination of monthly group videoconferences, weekly individual telephone supervision sessions, and daily or as-needed e-mail supervision provided the framework for this project. At the conclusion of the study, the use of telecommunication technology for supervision included more than 20,000 emails, 1,800 hr of individual telephone supervision, 500 hr of group telephone consultations, 450 secured fax information forms, 10,000 hr of audiotaped sessions, and 500 hr of psychotherapy videotape (Stamm, 1998). By using an integrated system of telecommunication technology, the authors were able to efficiently ensure protocol standardization across a large group of geographically distant providers.

**Reimbursement.** Reimbursement for telehealth applications and services has been a critical issue for the clinician. Government standards, regulations, and guidelines have often been the benchmark for reimbursement models. It is important to note that current guidelines stipulate that, in order to receive Medicare payment for telehealth services (e.g., consultations, psychotherapy, pharmacologic management, and outpatient visits), an interactive or synchronous telecommunication system must be used. Eligible geo-
A Telehealth Model for Clinical Supervision

Given the variety of new technologies that can assist in providing quality and expert supervision, an integrated model that combines face-to-face contact with electronically mediated exchanges may serve to address many of the challenges faced by rural mental health facilities. In this model, clinical supervision by means of telecommunications technology is seen as an adjunct to on-site face-to-face supervision for the trainee or new practitioner. This model consists of four modules, which may be used as needed in varying combinations according to the resources and needs of each individual program. In Module 1, users participate in both didactic and hands-on training in the use of the specified telecommunications applications. At a minimum, such training should aim to educate participants about the mechanics and use of the equipment, applicable legal and ethical issues involved in its implementation, as well as American Psychological Association (APA) practice guidelines and liability related to the use of such technology. In addition, new users should be provided with the opportunity for hands-on practice operating the equipment. This could be accomplished by devising a series of mock interactions or troubleshooting scenarios. It is recommended that Module 1 be completed by novice participants before initiating actual telesupervision contact. Once knowledge of and comfort with the equipment is gained, users may choose to implement the remaining three modules in any combination as necessary to meet their particular needs. Module 2 involves the use of hypothetical case studies for supervisor–supervisee discussion and practice. The intent of this module is for supervisors to select cases that may be helpful in demonstrating various ethical and practice-oriented dilemmas to facilitate discussion and teaching opportunities among trainees. To make cases accessible for distant trainees, supervisors may choose to devise a telesupervision web page that includes links to the case studies as well as web resources (e.g., web sites, online articles, and power point presentations) that may be useful in addressing issues relevant to the discussion of each case. Interaction between supervisors and supervisees may then be accomplished through e-mail and chat room arrangements wherein participants can engage in discussion about the cases and information gained from the web resources while allowing supervisors to monitor and intervene when needed. Module 3 of this model of supervision involves some consideration of group supervision by one supervisor for supervisees at one or more separate sites through live interactive teleconferencing using a secure, dedicated line. By using this format, supervisors are able to provide consultation to distant trainees without waiting for the next scheduled in vivo experience. Recognizing the importance of face-to-face supervision, Module 4 offers traditional individual face-to-face supervision for each supervisee in the clinical setting with the identified supervisors. By combining face-to-face with electronically mediated communication, this model of telesupervision aims to provide a system of supervision that meets the needs of rural interns while remaining sensitive to professional, ethical, and legal issues as well as scope of practice guidelines.

These four modules are intended to allow for the use of a combination of communication modes (i.e., web sites, e-mail, videoconferencing, and face-to-face contact) and are meant to provide a basic framework for a program of telesupervision. Given the range of available technology, this framework can be expanded or adapted as necessary to meet the idiosyncratic needs of supervisors and supervisees. Depending on the protections necessary for ensuring the confidentiality of patient health information as well as the requirements and resources of a particular program, it may not be feasible or necessary to implement the suggested technology for each of the four modules. Additionally, individual sites are strongly encouraged to investigate the cost-effectiveness of various telecommunication options because financial factors, together with infrastructure requirements, may directly impact the viability and range of appropriate technology. Given these potential constraints, this model can be adapted to include only the modules and technology necessary to meet the specific needs of a particular group of supervisors and trainees. In addition to omitting modules or technology that is unnecessary or impractical, this model can easily be supplemented with a variety of additional telecommunication applications. For supervisors who prefer to observe therapy sessions directly, in-office cameras could be used to record therapist–client interactions or to allow for live supervision of sessions. These recordings could then be stored on disk and later replayed during supervision meetings. Using split-screen technology, it would be possible for a supervisor and student, at separate sites, to review the recordings together. This arrangement could also be used for observing standardized protocol sessions and clinical interviews and for monitoring the administration of psychological assessments.

Goals of Telesupervision

Before implementing an integrated program of telesupervision, it is important to establish and evaluate the specific goals of such a program. According to Stamm (1998), before embarking on any telehealth project, facilities should assess whether the program will improve the standards of care. Based on this idea, effective telecommunication applications for clinical supervision should aim to reduce the isolation of health care providers in rural communities through the expansion and enhancement of the virtual network, which provides educational and clinical supervisory services. They should increase access to clinical consultative services and health education programs for rural psychologists and supervisees and provide supervisory expertise that would not otherwise be available in rural settings. Furthermore, the implementation of telecommunication technology should provide a feasible and sustainable system of supervisor consultation capable of accommodating multidisciplinary and specialty supervision.

In addition to these general goals, it is important that supervisors who use telecommunication applications remain mindful of the purpose of the supervisory process and how that process may be influenced by the use of technology. At a fundamental level,
supervisors must be cognizant of how technology-mediated communication may differ from face-to-face conversation. Depending on the type of technology used, visual and social cues may be compromised or omitted from verbal exchanges. According to Gammon et al. (1998), loss of nonverbal cues may result in more task-oriented, depersonalized, or nonspontaneous communication. To guard against these pitfalls, it is important that programs implement technology appropriate for their clinical needs and educate users on how to best communicate using different forms of technology. The limitations imposed on the communication process by technology may also be seen as beneficial. For instance, Gammon et al. (1998) reported that the use of videoconferencing forced supervisors and supervisees to articulate their messages more clearly and to be more structured in their communications. Furthermore, participants indicated that they were encouraged to listen more intently, to limit interruptions, and to be better prepared to present clinical material (Marrow et al., 2002). Thus, supervisors must continually attend to basic changes in communication patterns while ensuring that the telesupervision format does not hinder the process of effective supervision.

**Benefits of Telesupervision**

In addition to evaluating the goals and effectiveness of telesupervision, practitioners should be aware of both the benefits and challenges of such technology before its implementation. With regard to its benefits, a program of telesupervision offers several advantages for supervisors, supervisees, and the facilities that house the required technology.

One common observation among supervisors is that telesupervision offers many of the same economics that group supervision affords (e.g., economics of time, money, and expertise) while allowing supervisors to transcend many of the geographical barriers that would normally restrict contact with supervisees (Miller, Miller, Burton, Sprang, & Adams, 2003). In addition to improving efficiency, supervision using telecommunication technology has the potential to impact the supervisor–supervisee relationship positively by diminishing hierarchical issues between supervisor and supervisee and by encouraging participants to discuss more openly many of the issues involved in diagnosis and treatment (Miller, 2002). Research examining the differences between face-to-face and electronic forms of communication suggests that electronically mediated communication tends to lower some social inhibitions and may eliminate barriers to communication (Weisband, Schneider, & Connolly, 1995). Moreover, the opportunity to visually observe supervisees’ successes and failures as they conceptualize and intervene in supervision can provide an important vicarious learning experience and result in learning by both the clinician and supervisor. This has been accomplished in the past with the use of two-way mirrors and can be more easily accomplished today through a variety of telecommunication applications.

Telesupervision also provides students and practitioners with several unique opportunities. First and foremost, telecommunication technology can be used to provide expertise in supervision that might not otherwise exist in the clinical setting (Marrow et al., 2002). In addition, telecommunication applications make it possible to offer students a variety of instructional formats (e.g., e-mail, web resources, power point slides), which may serve to enhance the supervisee’s learning experience. As with traditional forms of supervision, group telesupervision provides supervisees with exposure to clients with whom other interns and supervisees are working complemented by the opportunity to offer each other a variety of perspectives that no one supervisor could provide (Stamm, 1998). Finally, a program of telesupervision will provide students and new professionals with structured exposure and training in the use of telecommunication technology. By using a combination of didactic and hands-on training, new users can be introduced to such technology in a way that minimizes anxiety while encouraging efficient and ethical practice. This experience would be particularly valuable for graduate students and new psychologists who plan to establish their practices in an era characterized by rapid technological advancement (Jerome et al., 2000).

Establishing and participating in a program of telesupervision also offers several benefits for host facilities. For instance, the ability to offer expertise supervision for a variety of disciplines may be helpful in attracting and maintaining interns and new professionals, which is often difficult in underserved areas (Brown, 2002; Striefel, 2000). In addition, the technology required for the most basic telesupervision system can also be integrated into other clinical activities. For instance, Internet connections and e-mail capability can be used to provide consultation and low-cost videoconferencing, or web-based materials can serve as a source of patient information or be used to meet continuing education and intrafacility training requirements.

**Challenges in Telesupervision**

Despite these advantages, telesupervision is subject to many of the same shortcomings associated with face-to-face supervision as well as several technology-specific limitations. As with face-to-face supervision, telesupervision may not allow individuals to get what they need from the supervision process. For instance, supervisees with heavy caseloads may not get sufficient supervision time, an overpowering group member could rob others of their instructional needs, or the structure itself might fit the majority of members but offer virtually nothing to a distinct minority of the members (Hamlin & Timberlake, 1982; Parihar, 1983). As Aronson (1990) pointed out, however, it is the supervisor’s responsibility to ensure that all members feel that they are getting something from the group supervisory experience.

Beyond these generic concerns are several challenges that occur as a result of introducing telecommunications technology into the supervision process. These include, but are not limited to, issues of confidentiality, equipment cost, users’ attitudes toward technology, quality of supervision, and licensure.

**Confidentiality.** In an electronically mediated environment, concerns regarding confidentiality may take on new characteristics. According to Stamm (1999), security risks fall into two basic categories: (a) risks directly from people and (b) risks from technology. Risks from people may come in the form of criminal and malevolent intent, accident, or curiosity. One of the most serious compromises to security is unauthorized access to confidential information. Fortunately, these risks may be reduced by using secure or closed networks and encryption programs and by adhering to the standards set forth in the Health Insurance Portability and Accountability Act (HIPAA), which provides national standards to reduce health care inefficiencies by encouraging the use of
information technology to better secure and protect patient information. Within the context of telehealth and tele supervision, any discussion of health-related information through the supervisory process must be disclosed to the patient with the assurance that their privacy will be protected. Under HIPAA, and as a part of the informed consent process, patients should be advised of uses and disclosures of health information, including health care operations that involve quality assessment, evaluating practitioner and provider performance, conducting training programs, clinical supervision, accreditation, certification, and credentialing activities (U.S. Department of Health and Human Services, Office of the Secretary, 2000). Beyond the use of encryption programs and adherence to legal standards, Stamm (1999) noted that the most obvious method of maintaining confidentiality is to omit identifying information from discussions of clinical issues. This is especially important in e-mail exchange, wherein messages may be mistakenly sent to the wrong party.

In addition to risks that come directly from people, there are also technological risks that originate from software or computer systems. For example, computer viruses may be designed to destroy data or disrupt computer systems. To avoid these dangers, system managers must continually update their virus scan programs, be alert for system glitches, and work to ensure compatibility of all system components (Stamm, 1999; Striefel, 2000). Another area of possible concern is the use of bridge services, which are used to connect multiple sites. Some networks may purchase this service from a contracted systems integrator or national telephone company. Companies that provide bridge services have access to and can record network activity. Providers can require the bridging company to sign a written agreement demonstrating their efforts to protect confidentiality.

Cost of technology. In programs seeking to implement a system of telesupervision, the cost of acquiring and maintaining the necessary technology may also be of concern. Fortunately, numerous options exist for creating virtual connections. For facilities outfitted with Internet capabilities, the use of e-mail and chat rooms may serve as an alternate medium of communication. Data can be sent on secure, closed intranets or encrypted to ensure confidentiality (Striefel, 2000). Equipment needs are minimal, requiring only a computer and Internet access at each location (Stamm, 1998).

For sites interested in incorporating technology-mediated face-to-face contact, several types of videoconferencing applications exist. When considering these options, providers must take into account both the clinical demands on the system and the type of transmission infrastructure required to support a particular application reliably. Videoconferencing systems vary in the type of transmission channel required and thus may operate at different bandwidths. As a measure of a communication channel’s ability to carry information, bandwidth directly influences the quality of video transmission. In other words, if detecting fine motor movements is critical, a system with higher bandwidth would be most suitable. On the other hand, lower bandwidths might be more appropriate when movement is not an important factor or when the cost of the infrastructure needed to support higher bandwidth is prohibitive. In general, the quality of transmission can be measured in kilobits per second. Among U.S. telehealth programs, the most common transmission rate is currently 384–786 Kbps (Mahue et al., 2001).

When detecting fine movements is not essential or when the cost of high bandwidth is prohibitive, two relatively inexpensive videoconferencing options include the use of videophones and PC-based desktop systems. Videophones that are H.324 compatible, also referred to as POTS (plain old telephone service) units, transmit data at up to 56 Kbps using analog telephone lines. Stand-alone units typically feature a built-in handset and LCD screen, whereas set-top videophones, which resemble a small cable box, use existing televisions and telephones to transmit data. In addition to their low cost, because these units can operate on analog telephone lines, they may be ideal for areas without access to digital telephone lines. Desktop videoconferencing systems involve the use of a PC equipped with a camera, microphone, and videoconferencing software (Stamm, 1998). Internet-based computer models are less expensive and typically operate at 128 Kbps depending on Internet traffic and computer processing speed.

Sites that require broadcast quality transmission may incorporate either a set-top or integrated videoconferencing system. Set-top systems are designed to sit atop a dual or single monitor and can be maintained on a mobile station, making it possible to move the system to different locations as necessary. These systems deliver high-quality, real-time audio/video data and work well with auxiliary equipment (e.g., document cameras). Integrated videoconferencing systems are group conferencing systems most often used in conference rooms or classrooms designed to accommodate multiple participants. These applications usually consist of a centralized location for wiring and processors to be routed. The main camera, displays, and peripheral video sources are usually mounted in the main conference area. Integrated systems may be customized and equipped with multiple features, allowing them to be used for a variety of functions. These systems usually require the use of one or more high bandwidth lines (e.g., ISDN or T1 lines), which allows for transmission rates of 128 Kbps to 1.5 megabits (million bits) per second (Mahue et al., 2001). Given the rapid pace of advances in technology, prices for this equipment vary from a few hundred to several thousand dollars. Ironically, the cost of developing and maintaining telehealth systems tends to be the highest in the regions in which telehealth would be most beneficial (e.g., rural areas; Nickelson, 1998). Fortunately, federal programs such as the Universal Service Program for Rural Health Providers may help to defray the operating costs of such systems (Wachter, 1999).

User acceptability. Regardless of the specific type of technology implemented, the success of a telecommunications system often hinges on its acceptance among participants. Although early studies of telehealth applications typically demonstrated high rates of satisfaction among both clients and providers, several studies suggest that, compared with face-to-face communication, service providers may be more anxious during technology-mediated contacts (Ball, McLaren, Summerfield, Lipsedge, & Watson, 1995; Blackmon, Kaak, & Ranseen, 1997). Such anxiety may be attributed to several factors, including lack of experience with technology and poor understanding of how telecommunication equipment works. Yellowlees and Kennedy (1996) suggest that appropriate training may serve to increase acceptance among users. In their discussion of the implementation of Australia’s telehealth system, the authors outlined a telehealth training program developed for practitioners. This program was based on two main objectives: (a) to provide staff with a working knowledge of the physical features and functioning of the system in order to allow them to use the
technology with relative ease and (b) to train users in proper interview and communication techniques. In addition to training, the authors suggest several strategies for demystifying telecommunication equipment such as placing equipment in normal working rooms and embedding the use of the system into routine clinical practice (Yellowlees & Kennedy, 1996). These suggestions could easily be applied to the supervisory process and have been incorporated into the previously described model of telesupervision.

Quality of telesupervision. To date, relatively few studies have examined the quality of telesupervision. In an attempt to qualitatively assess supervision by means of videoconferencing, Gammon et al. (1998) compared five videoconferencing supervision sessions with five face-to-face sessions. In this investigation, hospital-based supervisors used videoconferencing equipment to conduct individual supervision sessions with six psychiatry residents. After the completion of 10 sessions (alternating videoconferencing with face-to-face contact), participants were interviewed. The authors reported that the quality of supervision was satisfactorily maintained by using videoconferencing for half of the required supervision hours with the precondition that supervisor-supervisee pairs initially meet face to face to establish a working relationship. Although subjective accounts such as this one are encouraging, there remains a lack of quantitative outcome based data on the use of telecommunications technology for supervision (Capner, 2000).

Licensure. Professionals interested in establishing or participating in a program of telesupervision must be aware of licensure requirements for those providing distant supervision and for trainees or new practitioners seeking to gain supervised experience. Of primary concern to supervisees is whether individual states will recognize telesupervision as being equivalent to face-to-face supervision for the purposes of training and licensure. Given the relative novelty of telesupervision, this issue has not yet been addressed by most states. Programs that plan to rely on the use of telecommunication technology for the delivery of routine supervisory services should investigate the potential implications of this arrangement for license-eligible trainees.

In addition, the issue of licensure requirements, as a limitation to interstate telehealth practice, is often cited as a major barrier to the development of telehealth networks and services, including telesupervision. As with most health care professionals, psychologists are licensed on a state-by-state basis, which requires that a practitioner hold a full, unrestricted license in all states in which he or she practices psychology. For many professionals, acquiring and maintaining multiple licenses is a significant professional and financial burden, which falls particularly hard on rural health care providers, who often experience significant travel and lost work time in addition to other costs in complying with multiple state regulations. The primary issue for interstate supervisors is whether they enter State B from State A and practice a regulated profession via a telecommunications link. If, according to the regulations of State B, they are in fact practicing psychology within that state, then supervisors could be required to obtain a license in that state (Stamm, 2003). Given that individual states differ in their definitions of practice, it is important that supervisors review the state's regulations to determine whether or not supervision is considered to be part of professional practice (Nickelson, 1998). In some cases, supervision activity may fall under consultation services and, therefore, might be time limited or exempt from licensure.

Regardless of the status of interstate supervisors, it is important to remember that the direct and immediate supervision of any intern, as well as supervision provided by an expert outside the jurisdiction, is always the responsibility of the on-site licensed supervisor.

In anticipation of legislative changes with respect to the use of telecommunication technology, there have been efforts on the part of medical and nursing professionals to develop alternative licensure models for their professions (Wachter, 2000). For instance, Texas offers a special purpose license for out-of-state physicians who provide telehealth services to Texas residents. Although this license reduces the expense and time associated with full licensure, physically practicing medicine within the state with a special purpose license is prohibited (DeLeon, 2003). Similarly, the Joint Commission on the Accreditation of Healthcare Organizations revised its Hospital Medical Staff Standards, which now state that practitioners who treat patients with telemedicine are subject to the credentialing processes of the organization that receives the telemedicine service (Joint Commission on the Accreditation of Healthcare Organizations, 2003). Using a different approach, the National Council of State Boards of Nursing has developed a mutual license recognition program, which allows nurses who hold a valid license in one state to enjoy a multistate licensure privilege to practice in states that are members of the licensure compact (DeLeon, 2003).

Regarding the delivery of telemental health services, in a survey of states' attorneys general, Koocher and Morray (2000) found that there were no established standards across states. The time has come for psychology to examine, within the context of best practices and current technology, alternatives that provide for telecommunication applications while meeting the requirements set forth in HIPAA. As a starting point, the Association of State and Provincial Psychology Boards (ASPPB) has begun to address issues of reciprocity between states, which may involve the delivery of telehealth services. As the ASPPB continues to monitor the practice of psychology, it is likely that they will work with other disciplines that have addressed the issue of licensing for telecommunication applications in clinical care and practice. Our purpose in this article is to identify an innovative model based on new technology for ASPPB and licensure boards to address within their scope of evaluating its impact on health care delivery by psychologists licensed to practice.

Conclusions

Despite valid cautions regarding the use of telecommunication technology to deliver supervisory services, there is no question that the knowledge base and experiential alternatives telesupervision offers can serve to increase the exposure to supervision and expertise that typically may not be available or accessible in rural areas. With a system of telesupervision, supervisees literally can experience the benefits of having supervision provided by masters and specialists with whom they might not otherwise have an opportunity to engage. Given these advantages, telesupervision appears to have significant benefit, particularly within underserved or rural settings. Providers interested in establishing a program of telesupervision should carefully evaluate the requirements and resources of their particular facility to determine which types of technology would best meet their needs. In general, the use of telecommunications technology for the provision of supervisory...
services should maximize the use of direct supervisor–supervisee consultation while ensuring proper credentialing and professional education and training to specific areas of supervision. Although telecommunication technology and its adaptability to supervision will offer new avenues for the provision of specialized supervision experiences in training clinical interns and new psychologists, further research is needed to assess the impact of this technology on both the process and outcome of supervision. What is clear in examining the issues related to supervisory services to underserved and rural areas is that new models of service delivery that tap the latest in technological advances show considerable promise and value in enhancing service delivery. This is especially true for both direct patient care services and clinical supervisory experiences for psychology interns, residents, and early-career practitioners.

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