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# **Distance Supervision in Human Services**

Robert M. Carlisle, Kristy L. Carlisle, Tara Hill, Andrea J. Kirk-Jenkins, Gina B. Polychronopoulos

#### **Abstract**

As the use of technology increases, there are more opportunities for students and human service professionals to participate in education and supervision remotely. Distance supervision has become increasingly popular in the field of human services, providing educators and practitioners with new methods of professional communication. However, the use of technology in supervision also poses unique challenges for human service professionals and requires additional ethical considerations. The following will address the above points as well as review both asynchronous and synchronous delivery methods for distance learning supervision and their utility for providing supervision in the field of human services.

#### **Distance Supervision in Human Services**

Online education has become increasingly popular throughout the United States (Allen & Seaman, 2011; US Department of Education, 2011). Online education involves the use of technology to supplement traditional face-to-face education, or even replace face-to-face interactions, and it opens the door to providing instruction from a separate location from the learner (Fujikura & Kobayashi, 2013). The amount of students participating in online education continues to increase each year (Allen & Seaman, 2011) and as a result there is an increased need for distance supervision of students participating in programs that require a supervised internship experience, such as human services (CSHSE, 2011). Although there can be many benefits to distance supervision (Kincaid, 2004; Olson, Russell, & White, 2011; Watson, 2003), there are also numerous disadvantages (Chapman, 2008; Dubi et al., 2010; Sindlinger, 2011) and as a result the field of human services education is faced with new challenges for maintaining ethical and program standards.

#### **Online Education in Human Services**

Currently, human services coursework is offered through face-to-face, online, video conferencing, live broadcasting, hybrid, and other virtual classroom formats (Hill, Pusateri, Braun, & Maweu, 2012). In a survey examining educators' use of technology, Kincaid (2004) found that 76% of educators utilized the Internet in course delivery, 100% utilized e-mail to correspond with students, 39% participated in video conferencing, and 57% participated in phone consultation. In 2011, the

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Council for Standards in Human Service Education (CSHSE), the accrediting body for human service programs, recognized an increase in online human service programs and established specific policies for online program accreditation (Hill et al., 2012). Considering 20% of all students in the United States take at least one online course during their program, as applied to human service students roughly one-fifth of all students enrolled take at least one online course during their degree (US Department of Education, 2011).

With more human service programs offering online education opportunities, there is a greater need for supervision conducted from a distance when an internship experience is a component of the coursework. The Council for Standards in Human Service Education (CSHSE) outlines specific standards and requirement guidelines for human service programs throughout the country (CSHSE, 2010). At the bachelor's level, students are required to complete 350 hours of field experience (250 of which may come from the associate's level). Furthermore, programs are required to continually monitor the progress of human service students obtaining field experience (Standard 21.j) while providing biweekly supervision seminars (Standard 21.f). These requirements apply to all human service programs including programs that offer online, hybrid, and face-to-face learning. Typically, students enrolled in online education programs related to the various helping professions tend to seek service learning and internship opportunities local to their homes, as opposed to the physical location of their college (Dubi et al., 2010). Therefore, the traditional face-to-face method of supervision is not always a practical or convenient option and supervisors may conduct distance supervision through the use of technologically supported delivery systems.

# **Delivery Methods**

There are two types of delivery methods for distance learning (DL) supervision based on the time interval between sending and receiving; they are synchronous and asynchronous delivery (Chapman, 2008). Synchronous software programs, such as the telephone or video conferencing technology, involve live, instant, and real-time interactions (Sindlinger, 2011). Asynchronous software programs such as e-mail (Sindlinger, 2011), threaded discussions (Chapman, 2008), and file sharing programs involve a delay in time between communications (Clingerman & Bernard, 2004). Synchronous and asynchronous methods of supervision offer both face-to-face and online supervisors a technological smorgasbord of delivery methods to conduct and supplement other supervision approaches.

Specifically referred to as cybersupervision by Watson (2003), synchronous delivery methods of supervision offer a multitude of

options from multipurpose web conferencing, video streaming, and instant messaging applications. Some examples of options currently described in the literature include Adobe Connect (Dubi, Dubi, Raggi, Reynolds,, 2010), WebEx (Hayden, Navedo, & Gordon, 2012), Skype (Rautenbach & Black-Hughes, 2012), and Black Board (Chapman, 2008). A brief description of these software platforms is provided below.

Adobe Connect, as utilized in studies examining online supervision by Dubi et al. (2010) and Rautenbach & Black-Hughes (2012) and described by PCMag (2011) as the most capable web conferencing option available, has become a popular platform of choice to conduct online supervision by many human service programs. The full platform allows for web conferencing, e-learning, and webinars. Specifically, the web conferencing aspect of the Adobe Connect platform offers live individual and group meetings with audio, video, and chat functions. Depending on the package purchased, the supervisor would typically have access to the "host" privileges and a range of meeting management and reporting functions such as recorded sessions, white board, ability to share the host's desktop, use of Microsoft Office, shared documents, uploaded files, annotated functions, and the ability to permit other users access to the host functions (Adobe, 2013).

Webex, which is also observed in the literature (Hayden et al., 2012) but not comparable to Adobe Connect in terms of the quantity of features available (PCmag, 2011), offers a smooth user interface and video stream with many of the same major features as Adobe Connect. Such features include chat, audio, and video live feeds, shared documents, the ability to upload documents, shared desktop, recording of sessions, storing of sessions on the server, and the capability to download recorded sessions to a hard drive (Cisco, 2013).

Similar to WebEx, Skype offers live video and audio conferencing, chat, and file storing and sharing with additional phone and texting options. The free Skype plan allows users to participate in one-on-one live video conferencing while the premium fee-based package allows users to conduct video conferencing with up to 10 individuals as well as screen sharing options (Skype, 2013).

The Blackboard Learning Management System is found throughout the literature and offers a variety of asynchronous and synchronous delivery methods (Chan, Ming-Sum, Chan, & Hong, 2008; Peña, 2007; Trolley & Silliker, 2005). Such asynchronous functions include e-mail, file storing and sharing, blogs, discussion boards, wikis, and a "My Career" tab for locating internship sites. Synchronous functions include the use of web conferencing, live chat, and real-time discussion boards (Blackboard, 2013).

Asynchronous methods of supervision such as e-mail, referred to as e-supervision (Stebnicki & Glober, 2001), are often utilized as a

supplementary method for face-to-face supervision and synchronous distance supervision (Clingerman & Bernard, 2004). However, with advances in technology some of the traditionally asynchronous e-mail services also provide synchronous options for communication such as live chat, e.g., G-mail and Outlook. Both G-mail and Outlook offer the option to schedule meetings and synchronize calendars, while G-mail also offers options for group and individual live video web conferencing. In addition, G-mail offers a service called Google Drive, which is a file storing and synchronization service that allows users to upload and share files and to work simultaneously on the same file in real-time with other users (Google, 2013). Other popular file storing and synchronizing software programs include Sugarsynch, Dropbox, Zendto, SkyDrive, and iCloud.

The new advances in asynchronous and synchronous technology over the past 20 years have allowed supervisors more options than ever for conducting supervision. However, "a learning curve still exists for supervisors with regard to effectively utilizing current trends of technology" (Dubi et al., 2010, p.2). One very important aspect of that learning curve is properly applying the ethical codes of helping professions and relevant legal considerations to distance supervision.

### **Ethical Codes**

Although there are essentially no ethical standards that specifically identify technological applications related to distance supervision in the helping professions, it is important that supervisors who utilize technology in supervision understand how current ethical guidelines on the use of technology apply (Nelson, Nichter, & Henriksen, 2010; Sindlinger, 2011). Specifically, in the National Organization for Human Services (NOHS) *Ethical Standards for Human Service Professionals* (1996) there is no mention of technology for providing services to clients or providing supervision. However, the professional training standards for human service professionals were originally developed from the knowledge base of social work, counseling, and psychology (Neukrug, 2013) and the ethical guidelines of these professions can offer human service professionals additional knowledge to further inform their practice of distance supervision.

In reference to ethical codes in the field of social work, the National Association of Social Workers (NASW) *Code of Ethics* (2008) states that social workers should take precautions to ensure confidentiality when utilizing technology in providing services (standard 1.07.m). The Clinical Social Work Association *Code of Ethics* (1997) also states that clinical social workers should take precautions to protect confidentiality and to apply all relevant laws regarding storing and transmitting data. Thus, clinical supervisors bear the responsibility of

ensuring confidentiality when storing and transmitting data, understanding relevant laws and their application to technology usage, and avoiding the release of identifying client information when facilitating distance supervision.

Regarding the field of counseling, the American Counseling Association (ACA) (2005) *Code of Ethics* addresses the use of technology in counseling in section A.12. The eight subsections of A.12 range from informing the client of the benefits and limitations of counseling to informed consent. Nelson et al. (2010) identified the principles of the ACA *Code of Ethics* most often applied to distance supervision in the literature: confidentiality and security of information, informed consent, and emerging contact and crisis management. Furthermore, counselors have the responsibility to ensure that technology does not violate any state or federal laws. This point is particularly poignant when considering the legal requirements to maintain the confidentiality of records as required by the Family Educational Rights and Privacy Act (FERPA) and the Health Insurance Portability and Accountability Act (HIPAA).

Similar to the ACA, the American Psychological Association's *Ethical Principles of Psychologists and Code of Conduct* (2010) also addresses the use of technology in practice. Psychologists who plan to utilize technology new to them when providing services, teaching, or conducting research are required to obtain relevant training, education, consultation, supervised experience, or study.

Given the above ethical codes of various helping professions and the review of literature on distance supervision, the following is a list of ethical recommendations for supervisors conducting distance supervision in the field of human services: (a) inform supervisees of the additional risks to confidentiality associated with the use of technology in supervision; (b) ensure all stored or shared documents are not in violation of relevant state or federal laws; (c) instruct supervisees to inform their clients of the use of distance supervision and additional risks to confidentiality; (d) inform supervisees of authorized and unauthorized users; (e) obtain training in asynchronous and synchronous delivery methods to conduct distance supervision and seek professional development activities to stay current with changes in technology; (g) provide training for supervisees on the technology used in supervision: (h) consider alternate delivery methods if supervision at a distance is proven to be ineffective; (i) ensure distance supervision is conducted with the use of secure and encrypted delivery methods; (j) inform supervisees of appropriate emergency procedures for contacting their supervisor; (k) discuss cultural and language differences that could impact distance supervision; (1) inform supervisees about the risk of technology failures and backup plans when technology failures cannot be remedied during supervision. For supervisors conducting distance supervision to adhere to their ethical responsibilities, it is essential that ethical guidelines are developed to specifically address the use of technology in supervision (Vaccaro & Lambie, 2007).

# **Benefits of Distance-Learning Supervision**

Although distance supervision poses a number of ethical and legal issues to navigate, it also offers numerous benefits. Watson (2003) suggests that distance supervision might lead to more productive sessions as a result of the convenience and flexibility of scheduling and highlights the fact that supervisees have a larger range and a more diverse selection of placement sites from which to choose. With a larger selection, supervisees seeking service learning and internship placements have greater opportunities to seek placement locations best fitting their interests and needs. Furthermore, higher education in human services is not always available in a face-to-face format; therefore, with the use of technology more students from remote areas could pursue education and professional development opportunities (Kincaid, 2004). Olson, Russell, and White (2001) also indicate that distance supervision could save supervisors, supervisees, and students money and time that would have been otherwise spent on traveling.

Specifically concerning record keeping, distance supervision provides supervisees and supervisors a digital record or audit trail of communications (Hara, Bonk, & Angeli, 2000). When utilizing synchronous web conferencing platforms such as Adobe Connect or WebEx, entire supervision sessions can be digitally recorded with a simple click of a button. Similarly, when utilizing asynchronous delivery methods such as e-mail or chat to supplement synchronous delivery methods, a record of communications is maintained unless e-mails are purposefully deleted. In situations when gatekeeping might be an issue, having a full record of all communications and sessions between the supervisor and supervisee can be very useful for later review when making a determination. However, when adopting a distance supervision delivery format, it is important to consider some of the disadvantages and challenges of conducting supervision from a distance.

### **Challenges of Distance Learning Supervision**

As discussed by Watson (2003), some of the disadvantages specific to distance supervision most often cited in the literature (Chapman, 2008; Dubi et al., 2010; Sindlinger, 2011) include the following: technology can be expensive and distance supervision may not be an economically feasible option for some supervisors and supervisees. Additionally, distance supervision requires specialized knowledge of various asynchronous and synchronous methods used to

deliver supervision. Also, failures in technology can occur (Watson, 2003) which can disrupt the process or flow of sessions. Finally, the lack of in-person contact between the supervisor and supervisee can be a potential drawback (Vaccaro & Lambie, 2007). As described by Stenbnicki & Glover (2001), some challenges specific to asynchronous supervision methods (e.g., e-mail) include misunderstandings between communicators as a result of the absence of nonverbal cues as well as the risk of communicators leaving out important or contextual information due to the time required to type a communication.

On a final note, one of the most pertinent challenges of distance supervision is navigating questions surrounding the issue of confidentiality (Vaccaro & Lambie, 2007; Watson, 2003). As previously discussed, it is important for human service professionals to take precautions when sharing confidential files. Even when operating within a secure delivery method, it is sometimes unclear who does and does not have access (Watson, 2003), (e.g., third party system administrators, agency or university system administrators, or family members). Therefore, it is essential that supervisors receive training (Vaccaro & Lambie, 2007) and fully understand the supervision technology used in order to protect confidentiality.

# **Implications for CSHSE Training Standards**

Considering the many challenges associated with providing distance supervision, accrediting bodies such as CSHSE should provide guidelines and standards for online human service programs to assure they are appropriately employing technology and meeting current standards. Although CSHSE already developed standards for accrediting online human service programs in 2011, those standards addressed the logistics of the accreditation process, including experts in distance education on the accreditation team (Hill et al., 2012). Thus, the following section provides recommendations for key standards to be included for online human service programs.

When providing supervision to human service professionals using technology as a delivery method, competency standards would benefit from being transtheoretical. This means any supervision approach, theory, and intervention is used effectively throughout the computer-mediated delivery process. Additionally, supervisors would benefit from having "considerable experience" with the specific technology utilized in supervision (Chapman, Baker, Nassar-McMillan, & Gerler, 2011, p. 311). Regarding training, human service programs could develop a system for training both supervisors and supervisees prior to beginning a distance supervision relationship. Trainings could be offered to on-site supervisors, university supervisors, and supervisees via a face-to-face option, an online option, or both(e.g., video conferencing,

recorded training videos, or interactive webinars). Both supervisors and supervisees would benefit from being trained in video conferencing and computer mediated systems that will be used in the process, such as the use of cloud storage, in order to increase technical competence (Vaccaro & Lambie, 2007). Supervisors and supervisees can be taught a vocabulary of relevant terms related to the technology medium so they will be capable of resolving technological and logistical issues during supervision seminars. In the absence of clear ethical guidelines on distance supervision in the NOHS *Code of Ethics*, trainings should consider the above ethical recommendations for human service professionals as well as information from ethical codes in related helping professions.

Furthermore, when developing training standards for distance supervision the level of acclimation to technology of the supervisor and supervisee is an important consideration. Human service professionals come from many backgrounds and their exposure to and comfort with the use of technology can vary greatly. Therefore, trainings would benefit from considering participants' varying levels of experience with technology, being adaptable to those participants who may have limited knowledge of technology, and being responsive to how the use of technology in supervision might interact with supervisors' and supervisees' cultural backgrounds. Distance supervision standards should also include a provision for access to a helpdesk in the event of technical failures and troubleshooting (Vaccaro & Lambie, 2007). As a final recommendation, programs can make available equipment and software for distance supervision, such as small handheld or static cameras, access to recording seminars, and cloud storage options (Gruehagen, McCracken, & True, 1999).

# **Implications for Distance Learning Human Service Supervisors**

In order to avoid compromising trust, quality of communication, and openness in the supervisory relationship, supervisors must learn and understand the limitations, standards, and ethical and legal policies of the technology they are implementing (Dubi et al., 2010). Katz (2001) recommended that supervisors consider the following factors before entering a distance supervisory relationship (a) how to interact ethically when formal standards have not yet been defined; (b) developing a professional relationship prior to engaging in distance supervision; (c) the unique aspects of informed consent regarding the use of technology; (d) communicating with the client's privacy and confidentiality as a priority; (e) regular evaluation of the distance supervision process for emerging issues related to the use of technology. As a final note, when providing distance supervision the procedures used are carefully

documented and reviewed periodically for effectiveness and comprehensiveness by all parties involved.

### Conclusion

As technology continues its integration into the daily work of human service professionals, students, and supervisors, there are numerous possibilities in the field to participate in distance supervision. Successfully navigating these possibilities requires understanding the benefits and challenges of using technology in supervision as well as applying relevant laws and current ethical codes in the helping professions to this practice. Overall, as human service professionals and education programs continue to adopt the use of technology in supervision and student preparation, accreditation bodies such as CSHSE are recommended to develop standards that address the changing landscape of education and the increasing use of technology.

#### References

- Allen, I. E., & Seaman, J. (2011). *Going the distance: Online education in the United States*. Babson Survey Research Group and Quahog Research Group. Retrieved from http://www.onlinelearningsurvey.com/reports/goingthedistance.pdf
- Adobe. (2013). *Adobe Connect features*. Retrieved from http://www.adobe.com/products/adobeconnect/features.\_sl\_idcon tentfilter sl solution sl web+meetings.html
- American Counseling Association. (2005). *ACA code of ethics*. Retrieved from http://www.counseling.org/Resources/aca-code-of-ethics.pdf
- American Distance Counseling Association. (2013). *Welcome*. Retrieved from http://www.adca-online.org/
- American School Counselor Association. (2010). *Ethical standards for school counselors*. Retrieved from
  - http://www.schoolcounselor.org/files/EthicalStandards2010.pdf
- American Psychological Association (2010). *Ethical principles of psychologists and code of conduct*. Retrieved from http://www.apa.org/ethics/code/principles.pdf
- BlackBoard. (2013). *Blackboard*. Retrieved from www.blackboard.com Chan, C. C., Ming-Sum, T., Chan, M. C., & Hong, J. H. (2008). A virtual learning environment for part-time MASW students: An evaluation of the WebCT. *Journal of Teaching in Social Work*, 28, 87-100. doi:10.1080/08841230802179027
- Chapman, R. A. (2008). Cybersupervision of entry level practicum supervisees: The effect on acquisition of counselor competence and confidence. *Journal of Technology in Counseling*, 5, 3.

- Chapman, R. A., Baker, S. B., Nassar-McMillan, S. C. & Gerler, E. R. (2011). Cybersupervision: Further examination of synchronous and asynchronous modalities in counseling practicum supervision. *Counselor Education and Supervision*, *50*, 298-313.
- Cisco. (2013). *Cisco Webex*. Retrieved from https://signup.webex.com/webexmeetings/US/sem\_signup\_tomor row.html?CPM=KNC-sem&TrackID=1021381&psearchID=webex%20cisco
- Clinical Social Worker Association (1997) Clinical social work association code of ethics. Retrieved from http://www.clinicalsocialworkassociation.org/about-us/ethics-code
- Clingerman, T. L., & Bernard, J. M. (2004). An investigation of the use of e-mail as a supplemental modality for clinical supervision. *Counselor Education and Supervision*, 44, 82-95.
- Council for Standards for Human Service Education. (2010). *National* standards for human service education. Retrieved from http://www.cshse.org/standards.html
- Dubi, M., Raggi, M., Reynolds, J. (2012, March). Distance supervision the PIDIB model. Paper presented at the American Counseling Association Conference, San Francisco, CA. Retrieved from http://www.counselingoutfitters.com/vistas/vistas12/Article\_82.p df
- Google. (2013). G-mail. Retrieved from https://mail.google.com
  Gruehagen, K., & Mccracken, T., & True, J. (1999). Using distance education technologies for the supervision of student teachers in remote rural schools. Rural Special Education Quarterly, 18, 58-65.
- Fujikura, Y., & Kobayashi, M. (2013). Reaching across continents to prepare counseling's next generation. *Counseling Today*, 55, 74-77
- Hara, N., Bonk, C. J., & Angeli, C. (2000). Content analysis of online discussion in an applied educational psychology course. *Instructional Science*, 28, 115-152. doi:10.1023/A:1003764722829
- Hayden, E., Navedo, D., & Gordon, J. (2012). Web-conferenced simulation sessions: A satisfaction survey of clinical simulation encounters via remote supervision. *Telemedicine Journal and E-Health: The Official Journal of the American Telemedicine* Association, 18, 525-529. doi:10.1089/tmj.2011.0217
- Hill, T. M., Pusateri, C., Braun, E., & Maweu, M. (2012). Technological innovations for the human service profession. *Journal of Human Services*, *32*, 21-40.

- Kanz, J. E. (2001). Clinical-supervision.com: Issues in the provision of online supervision. *Professional Psychology: Research and Practice*, *32*, 415-420. doi:10.1037/0735-7028.32.4.415
- Kincaid, S. (Ed.). (2004). *Technology in human services: Using technology to improve quality of life* [Monograph]. Council for Standards in Human Service Education.
- National Organization for Human Services. (1996). *Ethical standards for human service professionals*. Retrieved from http://www.nationalhumanservices.org/ethical-standards-for-hs-professionals#section 2
- National Association of Social Workers. (2008). Code of ethics of the National Association of Social Workers. Retrieved from http://www.socialworkers.org/pubs/code/default.asp
- Nelson, J. A., Nichter, M., & Henriksen, R. (2010). On-line supervision and face-to-face supervision in the counseling internship: An exploratory study of similarities and differences. Retrieved from http://counselingoutfitters.com
- Neukrug, E. (2013). *Theory, practice, and trends in human services* (5<sup>th</sup> ed.). Belmont, CA: Brooks& Cole.
- Olson, M. M., Russell, C. S., & White, M. B. (2001). Technological implications for clinical supervision and practice, *The Clinical Supervisor*, 20 (2), 201-215
- PCMag.com. (2011) Video conferencing. Retrieved from http://www.pcmag.com/category2/0,2806,4836,00.asp
- Peña, C. M. (2007). Asking the right questions: Online mentoring of student teachers. *International Journal of Instructional Media*, 34, 105-113.
- Pfanner E. & Kanter, J. (2013). U.S. internet spying draws anger, and envy. *The New York Times*. Retrieved from http://www.nytimes.com/2013/06/08/business/global/us-internet-spying-draws-anger-and-envy.html?pagewanted=all& r=0
- Rautenbach, J., & Black-Hughes, C. (2012). Bridging the hemispheres through the use of technology: International collaboration in social work training. *Journal of Social Work Education*, 48, 797-815. doi:10.5175/JSWE.2012.201100114
- Sindlinger, J. (2011). Doctoral students' experience with using the reflecting team model of supervision online. Retrieved from ProQuest Digital Dissertations.
- Skype. (2013). Skype features. Retrieved from http://www.skype.com/en/features/
- Stebnicki, M. A., & Glover, N. M. (2001). E-supervision as a complementary approach to traditional face-to-face clinical supervision in rehabilitation counseling: Problems and solutions. *Rehabilitation Education*, *15*, 283-293.

- Trolley, B., & Silliker, A. (2005). The use of WebCT in the supervision of counseling interns. *Journal of Technology in Counseling*, 4, 23-31
- US Department of Education, National Center for Educational Statistics. (2011). The condition of education 2011. (NCES 2011-033). Retrieved from http://nces.ed.gov/fastfacts/display.asp?id=80
- Vaccaro, N. & Lambie, G. W. (2007). Computer-based counselor-intraining supervision: Ethical and practical implications for counselor educators and supervisors. *Counselor Education and Supervision*, 47, 46-57.
- Watson, J. C. (2003). Computer-based supervision: Implementing computer technology into the delivery of counseling supervision. *Journal of Technology in Counseling*, *3*, 1.