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Issues in the development of e-supervision in professional psychology: A review

Abstract

Objective Clinical psychology students and clinicians in regional and remote areas face challenges accessing required supervision and peer consultation. Distance supervision using existing online conferencing tools (e.g., SKYPE) is one option, but limitations of existing platforms require an external method of initiating a supervisory relationship and securely sharing confidential documents and videos. This paper addresses the development of an e-supervision application to overcome these limitations, and examines issues inherent to such a development. **Method** A newly developed e-supervision application provides online access to a database of clinical supervisors and peers for students to search, contact and meet, with additional document sharing and video annotation tools to support standard supervision activities. The authors provide a selected review of clinical, technical, legal and ethical considerations that have arising during the design, development and testing of this application. **Results** Technological barriers exist, both in internet capacity in rural areas, and with institutions allowing access to common meeting platforms. Online interactions necessitate a different communication style, which may deter new users. The highly confidential and sensitive nature of supervision resources (client videos and notes) requires the implementation of best practice security measures, and consideration of Australian Privacy law and informed consent procedures for clients.

Conclusions Issues around online security, confidentiality and verification of users need to be considered and addressed in the development of online supervision services. User perceptions of security and utility will ultimately determine uptake of online supervision services, and further investigation of user perceptions is required.

Keywords

e, supervision, development, professional, issues, psychology, review

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Issues in the development of e-supervision in professional psychology

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Abstract

Clinical psychology students and clinicians in regional and remote areas face challenges when accessing required supervision and peer consultation services which tend to be located in city centres. Advances in digital communication technology have seen changes in education delivery in many fields, including the use of online conferencing tools (such as Skype) to conduct live meetings. An e-supervision application has been produced, providing online access to a database of clinical supervisors and peers for users to search, contact and meet, with additional document sharing and video annotation tools to support standard supervision activities. The online database and meeting application addresses a need for greater access to clinical supervision and peer consultation for regional and remote clinicians, as well as providing clinicians in all locations access to a wider choice of supervisors with appropriate specialisations and rare expertise that would be difficult to access offline. Issues around online security, confidentiality and verification of users need to be considered and addressed in the development of online supervision services. User perceptions of security and utility will ultimately determine uptake of online supervision services, and further investigation of user perceptions is required.

Keywords: Clinical supervision, e-supervision, peer consultation, psychologist training, tele-mental health (5 in alphabetical order)

Introduction

Need for E-supervision

Psychologists constitute the third largest (after nurses and doctors) professional group of health professionals in Australia. With over 29,000 registered members, the number of new psychology registrants has been growing at a rate of about 9% a year (Grenyer, Mathews, David & Crea, 2010). Supervision is an integral and necessary component of clinical psychology training, and is a professional expectation for those practicing. Trainees and practitioners at all levels of career development have extensive supervision requirements. Fully registered psychologists are required by the Psychology Board of Australia to accrue at least 10-hours of peer-consultation per year, and provisional psychologists undertaking board approved 4 + 2 program have a requirement of 176 hours supervision over 2 years (Psychology Board of Australia, 2012). Thus, the demand for supervision is large, and growing with the expansion of the workforce. Currently, the tertiary sector in Australia is unable to meet the country's workforce requirements, particularly in clinical psychology (Grenyer et al., 2010).

The congregation of psychology supervisors/experts in urban settings has resulted in an enduring problem of professional isolation. Rural areas abound in placement opportunities for psychology training and services, but there is a lack of staff and expertise to provide adequate clinical supervision (Health Workforce Australia, 2013). Time, resource and geographical location constraints have been identified as major barriers to supervision for rural allied health professionals (Strong et al., 2003; Wood, Miller & Hargrove, 2005). This has prompted initiatives by Health Workforce Australia (HWA) to significantly increase supervision capacity in the near future, particularly in rural and remote Australia (HWA, 2013).

Provision of training, for example in universities, has been changing with the digital age (e.g. Cook et al., 2010), and we are currently in an era of telehealth, where medical and psychological consultations are routinely conducted via remote technology (e.g. Bouchard, Riva, & Wiederhold, 2011; Myers & Turvey, 2013; Ritterband & Tate, 2009). There is a consensus among many that technology will be an integral component of psychology education, and advancing the fields use of technology in education is key to optimal engagement with teaching services (Millis et al., 2010). It is

common for supervision to be conducted remotely by established supervisor-supervisee pairs (e.g. Abbass et al., 2011; Reese et al., 2009; Rosenfield, 2012), although initiating and developing supervisory relationships and conducting supervision entirely remotely is uncommon.

In this article we evaluate the benefits and potential problems in the use of technology to conduct remote supervision, and describe the development of a web-based supervision platform designed to overcome existing inadequacies. We explore the challenges that arose during development of the e-supervision platform as they highlight a number of important considerations in providing web-based supervision. Many of these considerations warrant further discussion and debate.

Present applications of technology in clinical supervision settings

Supervision provision in various fields of training has progressed with developments in technology. Some of the approaches employed include: one-way mirrors; audiotaped, then videotaped, sessions reviewed in person; real-time video utilising ‘bug in the ear’ (live supervisor feedback through ear phones in trainee’s ear) and ‘bug in the eye’ (live supervisor feedback through computer monitors in view of trainee) methods. Application of existing technology addresses the need for closer monitoring of student competencies and/or for the capacity to provide real-time feedback to the student to facilitate student learning. It is important to note these technologies can be used as tools for traditional face-to-face supervision to meet needs of direct supervision of client sessions.

In contrast, teleconferencing and videoconferencing in a supervision setting represent solutions to a different set of needs; convenience, availability, and physical distance. For instance, tele- and video-conferencing may appeal to supervisory dyads who otherwise need to travel to attend supervision, such as rural clinicians, but is unlikely to appeal to dyads working in the same or proximal physical location. It is important to recognise tele- and video-conferencing as solutions that are used when a traditional face-to-face meeting is not convenient or practical.

Electronically supported supervision (e.g., telephone) has long been available, is reliable and has become relatively inexpensive; however the advent of web-based programs such as Skype, Adobe Connect, Cisco WebEx, Microsoft Lync, etc., have made video-conferencing more accessible, reliable and affordable. Each approach to supervision has its benefits and limitations, and we have summarised these relative comparisons for telephone and videoconferencing in Table 1 below.

Insert Table 1 here.

There are a large number of available videoconferencing applications differing in platform support, communication functions and additional features offered. For effective online supervision, we considered several minimum requirements; support for Microsoft Windows and Mac OS X platforms, simultaneous audio and video support and encrypted communication. Of the 75 products reviewed in an internet search, 8 did not provide appropriate cross-platforms support, 8 did not support simultaneous video and audio communication and a further 10 did not support encrypted communication. The remaining 49 applications differed in many ways including wide-ranging costs, supported video and audio quality, meeting tools, internet speed requirements and document sharing support.

Importantly, no investigated videoconference application supported relationship management; meeting participants need to have already developed a relationship offline and organised an online meeting before utilising these videoconference applications for clinical supervision.

Overview of e-supervision development

In response to limitations of existing online platforms in supporting the initiation and maintenance of a supervisory relationship, an online e-supervision application was developed incorporating tele- and video-conferencing with new online tools to facilitate a more enabled online supervision experience. A brief overview of the e-supervision platform will be given here. For the purposes of this discussion, when referring to “e-supervision” we are generally referring to the use of video-conferencing in conjunction with an online student and supervisor database designed to provide tools to support this process.

The e-supervision platform was developed with funding support from Health Workforce Australia with the goal of enabling students, provisional psychologists and practitioners pursuing professional development to access suitable supervisors who are geographically distant, with particular focus on rural and remote students. The service provides: 1. a database of users seeking, or wishing to provide, supervision; 2. A system for students to search supervisors and negotiate an

agreement to engage in supervision; 3. a system for scheduling and conducting distance supervision meetings via any available mode, with particular emphasis on web-based video conferencing, 4. A secure storage system for confidential files, therapy video recordings, and other resources; 5. a video review and annotation tool and; 6. A payment system for supervision services.

The platform allows supervisees to search a database of supervisor profiles based on relevant information such as clinical and supervisory experience, accreditation and expertise, supervision cost and availability to provide appropriate supervisor results. An internal messaging service provides initial supervisory relationship management, and links to web-based videoconferencing enables real-time supervision. Additional tools support the supervisory environment such as a file and video sharing platform, which provides the capacity to securely upload and store video of any common format with access to only specific named users. A video annotation tool enables users to make notes which are time marked and attached to the video, and can be saved and printed separately. The functionality to access and review therapist-client sessions is critical to effective supervision; important competencies including skills, relationship, and attitude-value competencies require review and feedback on therapist-client interactions (Gonsalvez, Oades & Freestone, 2002), and a video annotation tool provides an excellent mechanism to shape important metacompetencies such as reflective practice (Gonsalvez, 2014).

The platform has been piloted internally and on limited use with existing external supervision groups, with larger scale trials planned. Our experience in developing the e-supervision platform suggests the digital technology involved in such an application is not difficult to implement. The challenge is in transferring standard behaviours and protocols that are well established in face-to-face meetings (e.g., confidentiality) and navigating the implementation of these behaviours and protocols in an online environment. For example, changed behaviours might include differences in the initial development of the supervisory relationship and the need for socialisation to the online environment. This can be due to the variation in conversational flow or slightly reduced visual cues in video

conferencing. Details of how confidentiality is handled in an online environment, particularly when considering psychological assessment reports and client videos shared in supervision, warrant particular focus.

Issues with the use of video conferencing technology in supervision

Access to technology to support online meetings remains a barrier for some users. The initial setup of complex online meeting environments with particular software and hardware demands place burden on new users. Connectivity issues confront those in regional or rural areas where internet speeds may be slow. Further some institutions or services lag behind or do not permit access to the internet for some web meeting applications. There are many issues around the application of appropriate information management and security considering the highly confidential and sensitive nature of many clinical psychology training resources. Finally, there are barriers to acceptance of both the technological and social aspects needed to successfully conduct traditional face to face meetings in an online environment. We now discuss some of these issues in more detail with reference to the developed e-supervision platform.

Technology. With the wide availability of programs such as Skype there is increasing acceptance of videoconferencing as a form of “face-to-face” communication. Despite vast improvements in internet bandwidth and available hardware, the online meeting experience quality can be variable. Most people have come to accept some of the awkwardness in this form of communication that can occur (e.g., delayed voice, freezing, loss of sound). There are differences in the flow of communication to accommodate some of these difficulties, such as increased delays to signal turn-taking, which can make communication somewhat more stilted. With improvements in the reliability of communication technologies these difficulties become less pronounced. Another concern is that depending on the quality of video, access to micro-facial expressions is not available. This may be important for supervisors when attempting to read the emotional or other response of a supervisee. Finally, there is a loss in the nonverbal cues associated with body position and posture. Usually, video conferencing involves a view of only head and upper torso. Together, the loss of this information may have an effect on the development of the supervision alliance. Additionally, in contrast to a traditional

meeting environment, users may be able to multitask by engaging in other computer tasks during supervision meetings, such as email or web browsing; distractions that may present a barrier to live online engagement.

Overall, we would anticipate that the alliance may take longer as both supervisor and supervisee adapt to the new supervision environment. The e-supervision platform allows for introductory training for users new to online meetings to ease the transition into the online supervision environment, and data collection is planned to measure supervisory alliance arising from online interactions.

Confidentiality and the Privacy Act. The Privacy Act 1988 governs the requirements for collection, use, storage and access of confidential client information. The Australian Psychological Society (APS) Code of Ethics (2007) provides guidance to assist clinicians in adhering to the Privacy Act.

“Psychologists safeguard the confidentiality of information obtained during their provision of psychological services. Considering their legal and organisational requirements, psychologists: a) make provisions for maintaining confidentiality in the collection, recording, accessing, storage, dissemination and disposal of information; and b) take reasonable steps to protect the confidentiality of information after they leave a specific work setting, or cease to provide psychological services.” (APS Code of Ethics, 2007, p.15)

The guidelines include provisions for discussing confidential information during supervision or consultation with colleagues, where the clinician either de-identifies the information or obtains client consent and discusses confidentiality with the recipient of the information (APS, 2007). The APS provides additional guidelines for internet-based psychological services (APS, 2011), including professional training and supervision. Briefly, security of confidential information should be increased by the use of passwords and encryption, however all clients and users should be informed of the limitations of security technology to protect confidential information. It is imperative that digital solutions enable a reasonable level of protection of confidentiality and that users are educated in implementing them.

Acceptability and utility. One of the best methods for determining whether a trainee can apply learned skills is to observe him or her in action. However, this often brings up concerns regarding confidentiality for the client and anxiety on the part of the supervisee, and is relatively rarely used in practice (Amerikaner & Rose, 2012). Although there have been criticisms levelled at direct observation, it is widely accepted that supervision should include at least some direct observation of supervisees conducting therapy (Amerikaner & Rose, 2012) and the Psychology Board of Australia has recently mandated observation of trainees for certain competencies (Psychology Board of Australia, 2012). Video review enables the supervisor to observe non-verbal cues and also increases the practitioners' self-awareness (Abbass et al., 2011).

The E-Supervision platform includes a video review and annotation tool allowing users to upload clinical videos for confidential sharing with specified linked users, who can provide feedback in text comments that are time matched to relevant video events. This tool provides supervisors a medium for accessing confidential student clinical videos and provision of text commentary for later review by the student.

Video recordings of client sessions represent highly confidential information that is commonly shared in supervision settings. Typically, students who video record their sessions in a clinic session retain and review these sessions with their supervisor in that setting. The security of video recordings is handled in much the same way as security of clients' files. Part of the informed consent process specifies who will have access to the recordings, how they will be used, and what happens to them at the end of their use. Typically, this involves setting a time limit on retaining the recording and specifies that the recording will be deleted at the end of the designated activities and time.

The notion of uploading a videorecording of a real therapy session onto an internet-based system raises additional concerns about security and confidentiality. Threats to security can be separated into risks from people and risks from technology (Wood et al., 2005). Wood identifies the risks from people as accidental breaches, intentional criminal access and other unauthorised access. The utilisation of the latest technology is necessary for controlling access to, and transmission and storage of clinical information (Czapski, 2004). In the development of the e-supervision platform a model of security was developed that protects against unintentional or accidental distribution of

confidential information and resources, and also reduces the risk of intentional and malicious access to confidential data and files. We sought to maintain at least the same level of privacy and confidentiality for clients that would be afforded in face-to-face supervision.

In the e-supervision application, video material is encrypted during upload, and access is limited to only the supervisor and supervisee. This is protected by low-risk passwords. In contrast to standard filing systems, or those on shared computer networks (e.g. Manring, Greenberg, Gregory & Gallinger, 2012), other users of the system do not have access to the recording. In addition, the supervisor is only able to view the video, with no option to download, limiting opportunities for unauthorised use. Recordings are automatically deleted if they have not been accessed for one month. In this sense the system is potentially more secure than relying on individual supervisees to safeguard copies of recordings and remember to delete or destroy recordings that are held on resources such as DVD, portable memory or computer hard drives.

Data Security. There is risk involved with transmission and storage of electronic data, and confidential client information is of particular concern. APS code of ethics requires clinicians to take “reasonable steps” to protect confidential information, although practical application guidance is lacking. The Health Insurance Portability and Accountability Act (HIPPA) regulations provide helpful guidance that benchmark security mechanisms (Midkiff & Wyatt, 2008). HIPPA requires the use of account password protection and automatic timed log-off for user validation and account protection. Virus, spam and spyware filtering and removal tools are recommended. Secure transmission of data and data encryption (HTTPS, SSL) ensure data is sent and readable only by the intended recipient. The developed e-supervision platform applied these security standards, and was penetration tested to identify and rectify potential weaknesses in digital security.

Despite the implementation of security mechanisms, it is generally accepted that the weakest link in the security of any communication technology is the user (Kline, He & Yaylacicegi, 2011). Users may inadvertently allow security breaches by creating predictable passwords, keeping passwords in accessible places or leaving accounts logged in. They may also intentionally circumvent security procedures by providing their account access information to others. User breaches represent the most likely risk to data security, and are combated most effectively though a combination of a)

automated user security tools (e.g., password rules, detection of account inactivity and auto-log out), and b) user education to reduce both inadvertent and intentional security risks (Kline, et al., 2011). Both of these approaches have been implemented to enhance data security in the developed e-supervision platform.

Unauthorised access. Unauthorised access to an online database essentially amounts to a ‘High Tech Crime’, a criminal act under the Criminal Code Act (Australia, 1995), with linked criminal acts of fraud or identity theft included where warranted. The threat of unauthorised access is twofold. It is possible for individuals to engage in fraud and/or identity theft and assume the role of a supervisor or supervisee. The provision of a Psychologist Board of Australia number provides some protection but these are in the public domain and verification is the responsibility of both supervisor and supervisee. This is considered a higher risk than would occur in regular face-to-face supervision arrangements as misrepresenting oneself online is easier than in person.

With regards to security of the user’s personal information, the data are of a less sensitive nature. Nonetheless, users would need to be confident that their personal data cannot be unlawfully accessed or used for purposes for which they have not consented. This is common to all types of online data (e.g., online banking). Provided up-to-date security technology and systems (i.e., password authentication) are employed, this is unlikely to be a major additional concern for users.

The second major concern regarding unauthorised access relates to hacking. Despite security mechanisms, all systems are vulnerable to digital attack. However, as with other health records there is general acceptance by the public that their information will be stored in electronic form and meet certain security standards. If documents uploaded to the e-supervision platform, these can be de-identified to maintain the confidentiality of client information. Video recordings of sessions are likely to be the most sensitive material that would be held in the database. These too can be provided in such a way that client identity and confidentiality can be protected, for example, by having the client with their back to the camera and muting any material that might identify the client.

However, clarity about the level of security of these resources in the system is likely to be the key issue for users of the system. It is currently unclear what expectations supervisors and supervisees have regarding appropriate levels of security, nor is it clear whether supervisors and supervisees have

a clear understanding of the meaning of various forms of security beyond password protection (e.g., data encryption). Every day understanding of such terms and the practical meaning of these forms of security amongst professionals is lacking. There is a need to assess what professionals consider to be “acceptable” levels of security for such information. We are aware that “free” video conferencing services such as Skype are being used by supervisors offering their services online, and are being advertised by institutions (e.g., UMelbourne InPsych advertisement, August 2013). Thus, there appears to be increasing acceptance of the levels of security provided by such services.

Supervisor matching. Currently, there are no established best practice guidelines regarding variables on which supervisors and supervisees should be matched. The need for the esupervision database to include basic information about supervisor qualifications training and expertise is pertinent because supervisors have to meet different Board requirements to be eligible to supervise different sub-groups of trainees (e.g., 4+2, 5+1, registrars). From a broader perspective, although there has been limited research, it is relevant to determine the effects of matching key supervisor and supervisee variables on supervision process and outcome. Within the existing literature, there is evidence that rural clinicians may prefer to be matched with others from rural areas (Xavier, Shepherd & Goldstein, 2007). Further, weak positive effects (trends that failed to reach statistical significance) on supervisory alliance were observed in one study for supervisor-supervisee dyads that shared the same theoretical orientation, compared to dyads that had dissimilar orientations (Boyes, 2009). Some attention has been paid to the effects of racial differences between supervisor and supervisee and potential influences on perceptions, expectations, and differential perspectives on both therapy and supervisory process (Allen, 2007; Ruskin, 1994; Ladany, Brittan-Powell, & Pannu, 1997). The lack of rigour and the inconsistency of results within the research make definitive conclusions premature, although there is consensus that cultural competencies among supervisors and supervisees are important, with poor cultural competencies likely to affect supervisory alliance. The esupervision platform allows students to seek supervisors (and peers seek other peers) based on a list of criteria, creating an environment for students to match themselves with supervisors of their choice.

Verifying Supervisory Accreditation. In standard settings, supervisors are often identified by reputation or word of mouth. Generally, the level of verification is informal in that the supervisor is known to others in the profession or is identified as working in a specific service. In an online environment the potential number of supervisors increases dramatically and these informal forms of verification can become more difficult. Whilst the e-supervision application requires users to accept an End User Agreement and declare their entries as true and accurate, the project team determined the focus should be on educating users such that they show due diligence and conduct some verification of the background of potential supervisors before engaging in a supervisory relationship. This might include obtaining a form of reference check from prior supervisees or verification of employment. Users who query the validity of a user may report them to the e-supervision platform administrator for follow-up. The e-supervision platform administrator has the capacity to suspend or delete accounts deemed fraudulent.

Any user can create a profile on the e-supervision application as either a supervisee or supervisor and making this process more restrictive (i.e. validation) may reduce (but not eliminate) the risk of illegitimate user accounts, but would negatively impact usability. Some background information is requested from supervisors to allow students to check the expertise match (e.g., theoretical orientation) and also validity of a listed supervisor. Specifically, the system requires entry of a Psychologist Board Registration number and specifies levels of supervisor accreditation. The application does not endorse specific supervisors or users as legitimate, but provides links and information to assist in external checking. It is up to the supervisor to provide evidence of supervisory accreditation and the supervisee to determine the accuracy of the information.

Impact of distance communication on the supervisory relationship. Research into the supervisory relationship when using videoconferencing is limited. Supervisees in case discussion intentionally withhold disclosure of clinically relevant material from their supervisors with some frequency (Ladany, Hill, Corbett, & Nutt, 1996; Yourman, 2003). Ladany and colleagues (1997) found that 44% of supervisees intentionally withheld discussion of what they considered “clinical mistakes”. It has yet to be determined whether the additional “distance” that might be expected through e-supervision interactions impacts such withholding.

Amongst the studies into the supervisory relationship, we were unable to identify any which compared entirely face-to-face relationships with those conducted entirely remotely. Sorlie, Gammon, Bergvik and Sexton (1999) found that alliance ratings were the same when participants alternated between face-to-face and videoconference, when the pairs had previously established good relationships. Although there were higher ratings of 'disturbance' factors (e.g., sound delays, dropouts, etc.), some of these may be reduced by improved technology since that early study. Reese and colleagues (2009) also used alternating formats for supervision; they found that videoconferencing did not appear to affect the supervisory relationship, and students were satisfied with their supervision. Participants in that study had also met face-to-face for one session before using videoconferencing.

Although the evidence suggests that videoconferencing is not a barrier to developing a good supervisory relationship, there is also an implication that a face-to-face meeting early in the process may serve to facilitate the supervisory relationship. In a panel discussion on telephone supervision, it was agreed that establishment of a face-to-face relationship is important, and that the fit between participants was more important than modality (Manosevitz, 2006). This is supported by the research that found participants voiced concerns with the idea of a completely videoconference-based supervisory relationship (Reese et al., 2009). Although it is important that supervisors bear in mind any limitations to non-verbal communication created by the technology used (Manosevitz, 2006; Reese, 2009), on the whole it seems that effective supervisory relationships can be developed in remote supervision contexts.

Clients' acceptance of e-supervision. The need for informed consent for observation or recording of therapy sessions is essential. However, there are a number of new issues that need to be clarified with the advent of e-supervision and recording of sessions. Manring and colleagues (2012) stressed the need for policies requiring written informed consent with the case of digital technologies. It is imperative that clients understand the full implications and, conversely, the security measures in place to protect their privacy (Manring et al., 2012). Written consent should clearly set out the purpose for which the recording will be used, by whom, and what will happen to the recording when no longer required. If video recordings are to be stored on a secure database, it is reasonable to inform

clients of this and to specify the processes for deleting such files. The e-supervision platform provides a generic outline for an informed consent process.

Conclusions

Psychology supervision demands are growing, and pose particular challenges for geographically isolated rural and remote professionals. Continuing advancement in online communications is enabling supervision to be conducted online, and this medium has the potential to link regional and rural clinicians to available supervisors and peer consultants in urban areas, and to augment existing face to face supervision for urban clinicians. Any solution for online supervision needs to recognise the sensitive and confidential nature of the issues discussed in clinical supervision, and address digital security, privacy and client confidentiality issues appropriately. It is also important to recognise that users are a primary weakness in any digital system, and user education is imperative in combatting this. For successful uptake of online supervision, potential users will need to be confident their data have adequate protection from unintentional or intentional breaches of security.

The developed e-supervision platform provides a medium for locating and accessing supervision services online, with online document sharing and video review tools to support the online supervision experience. The development leverages existing industry standard security protocols to prevent intentional data theft, and attempts to guide and educate users to prevent unintentional data distribution. Further, users are educated to encourage verification of supervisory and peer users before engaging in services.

Supporting rural and remote clinicians was a focus of the e-supervision application, and features may be considered that specifically address this user group. For instance, rural and remote clinicians seeking supervision reportedly favour the experience of other remote clinicians over clinical expertise (Xavier, Shepherd, & Goldstein, 2007), and the e-supervision platform does not presently include geographical location type as a search function. Careful consideration was taken to ensure the e-supervision platform could also offer services to a wide audience of clinicians, including in urban settings, group and peer consultation users. Although the scope of the esupervision project to date has required a contained focus on supervision for clinical psychology, there is also potential future scope

for use of the esupervision platform with other groups, with simple modifications to the user database to accommodate other allied health professionals. The utility of online supervision services coupled with user perceptions of security will ultimately determine uptake of any online supervision and peer consultation services, and future research into these issues is warranted.

Key Points

What is already known about this topic

1. The demand for clinical supervision is growing, and presents challenges in rural and remote contexts with limited supervision opportunities coupled with distance constraints.
2. Supervision conducted online ('e-supervision') is becoming common and has the potential to support distance supervision in rural contexts, and to augment supervision in metropolitan areas.
3. Clinicians usually develop a supervisory relationship face-to-face before commencing online communication.

What this topic adds

1. A recently developed e-supervision platform allows the establishment and maintenance of a supervisory relationship to occur entirely online.
2. Supporting supervision activities online requires consideration of privacy and confidentiality obligations, addressed by implementing appropriate security mechanisms and policies, and educating users in their implementation.
3. Addressing barriers to user and client acceptance will ultimately determine the uptake of online supervision services, and future e-supervision endeavours should consider these factors at the application design level.

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Table 1. Comparison of strengths and limitations of tele-conference versus video-conference technologies

	Tele-conference	Video-Conference
Access	Readily available	Readily available
Cost/Convenience	Inexpensive	Inexpensive
User Friendly	Commonly used	Initial setup and learning curve
Security and Perceptions	Secure with wide acceptance of security	Secure but with some user uncertainty regarding security
Audio Quality	Generally good to excellent quality	Variable quality. Determined by internet connection and hardware (microphone, speakers, webcam)
Reliability	Reliable	Variable reliability. Depends on internet connection and computer hardware
Information shared	Audio information only.	Audio and visual information. Nonverbal cues from supervisee available. Ability to review documents. Ability to review video.