Telesupervision in General Practice Training: A Case Study

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ABBREVIATIONS
GP – General Practice
DVC – Digital Video Conferencing
CS – Clinical Supervisor
ES – Educational Supervisor

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What this paper adds:

Telesupervision has become an effective training model in some disciplines, but has not been studied in General Practice (GP) training. This Case Study has found that telesupervision could offer an innovative solution to increases in training capacity, and explores issues that would be involved in setting up such a programme.

Abstract

While recruitment to General Practice (GP) is a Government priority (NHS England, 2016), matching trainees to available trainers can be challenging. Remote supervision using Digital Video Conferencing (DVC) technology (telesupervision) has proven to be a workable solution to overcome this problem (Dudding, 2009; Brandoff and Lombardi, 2012) since supervisors can engage in effective supervision even when geographically distant from the supervisee. However, this has not been studied in GP training.

The use of telesupervision in GP training adds an extra dimension, since trainees require clinical supervision in their placement practice as well as educational supervision from a qualified GP trainer. Such a model therefore would depend upon a triad of relationships between the trainee and clinical supervisor in one location, and an educational supervisor operating remotely.

This paper presents a case study of Telesupervision, from the perspective of a GP educational supervisor (ES). It is presented as a real world exploration of the issues that would be encountered in such a model, and explores both the technical aspects of setting up effective telesupervision and the experience of coaching across a DVC platform in the particular context of GP training. Fundamental to the effectiveness of such a model would be the clear demarcation of the roles and responsibilities of the clinical and educational supervisors and their working relationship with the trainee.

Introduction

In April 2016, NHS England (NHS England, 2016) announced the intention to recruit an additional 5,000 full time equivalent General Practitioners (GPs) within the next five years. This ambitious target will be hard to meet,

and one potential limiting factor is likely to be the availability of GP trainers, including the potential mismatch of GP trainer availability and trainee need. It is highly likely that there will be GP trainers with spare capacity for training in one location, and practices willing to accommodate GP trainees, but with no qualified GP trainer to supervise them. Telesupervision offers a potential solution to this mismatch: trainers and trainees could be connected via Digital Video Conferencing (DVC) (Dudding, 2009) even if they live remotely. Such techniques have been used in other disciplines (Dudding and Justice, 2004; Brandoff and Lombardi, 2012), but usually this has involved a single supervisor and supervisee. Since GP trainees require a clinical supervisor within their practice, for day to day clinical supervision as well as tutorials and assessments, any use of telesupervision in a GP context would have to involve a three way interaction between the trainee, GP Clinical Supervisor (CS) within the practice and the GP trainer acting as an Educational Supervisor (ES) remotely. An evaluation project (Diack & Parkin 2017, *in Press)* was conducted regarding the feasibility of such supervisory practice. The project is presented here as a case study, from the perspective of the ES, with analysis of the issues raised in setting up the DVC, as well as the implications for mentoring and coaching of both the trainee and the Clinical Supervisor.

Setting for the Case Study

Fong, Fong and Li (2011) describe how an apparently simple idea - use of technology for remote supervision in healthcare - raises many questions in terms of design and implementation. The emergence of telesupervision in commercial settings such as private music lessons (*Wifi Music School*, 2017), is testimony to the fact that many of these questions can be answered, but this Case Study was an opportunity to explore the technical challenges involved, as well as particular issues pertinent to GP training.

Both the General Medical Council (2006) and the Royal College of General Practitioners (2009) place high value on the apprenticeship model in General Practice, defined as 'education and service blended together for professional growth'. Key to that model are regular tutorials with a trainer, which frequently involve the discussion of cases seen by the trainee - hence bringing educational outcomes from service provision. The scenario chosen for the Case Study fits within this context; the trainee discussed the case of a sixteen-year old woman who wanted to start contraception; the CS helped her analyse the case and its surrounding issues in a tutorial setting, which was observed remotely using DVC technology by the ES, who then gave feedback to the CS.

Explanation of the Setting

The scenario was conducted in GP consulting rooms at both ends of a Skype (*Skype*, 2017) conversation, a form of DVC (Dudding, 2009). Consent from all three participants was obtained before the Skype connection was made, and confirmed again on the day.

Key issues were identified for the setting, in relation to safety and ease of communication:

Safety

Principal safety issues were in relation to privacy and confidentiality. Hebda and Czar (2005, p. 233-4) define privacy as 'a state of mind, a specific place, freedom from intrusion, or control over the exposure of self or of personal information' and confidentiality as 'a situation where a relationship has been established and private information is shared.' Using these definitions, it is clear that privacy concerns would relate primarily to the trainee, while confidentiality issues need to be considered for patients in the host practice.

The mistreatment of medical trainees remains disappointingly frequent, and is linked to burnout (Cook et al., 2014). It was essential that the trainee took part in the exercise freely and without any sense of coercion. While the tutorial itself will have been familiar to the trainee, the intention was to make a recording of the Skype conversation using the recording software SuperTintin (*Super Tintin*, 2017) Use of video can make people self-conscious (Hebda and Czar, 2005), and

privacy concerns arise over the potential use of the recording. Fully informed consent was therefore essential, with the right to withdraw at any time.

Confidentiality issues could arise if there were patient-identifiable information visible on camera, or if the patient being discussed could have a chance of being identified. The former was easily addressed by checking the room prior to setting the Skype (2017) connection, whilst the latter does raise new issues for the tutorial. Trainers and trainees frequently discuss a patient by name in a tutorial, since they are usually in the same practice and both have a duty of care to the patient - but this is not the case for a remote supervisor and so patient-identifiable information should be avoided.

Privacy could also be compromised by an insecure connection to the internet. An intranet is one potential solution (High et al., 2005), but this would be expensive for this setting, but the use of N3 connections at both sites was felt to ensure an adequate level of security.

Ease of communication

Despite concerns about not being able to make eye contact via Skype (Hebda and Czar, 2005), our experience was similar to others (Brandoff and Lombardi, 2012; Nelson and Duncan, 2015) in that this did not prevent good rapport, and in fact was hardly noticeable. The importance of adequate lighting has been stressed when Skype (2017) is being considered for clinical consulting (Atherton and Ziebland, 2016); while lighting was not ideal at one of the DVC sites, due to the participants being backlit by a skylight, again this did not affect the quality of the experience in a significant way. While this could be rectified by bringing extra lighting into the room, the extra expense did not seem justified. Audio quality can also be a limitation with DVC (Dudding, 2009), but again this did not affect the experience - the quality needs to be good enough to be useable, but not excellent.

Explanation of the Technology Used

Skype (2017) is described as synchronous technology (Wood, Miller and Hargrove, 2005) since both participants are engaged live with the transmission. This requires prior co-ordination to make sure both parties are present at the same time. For this reason, an asynchronous, rapid form of communication was required to set up the live interaction. The challenge with asynchronous computer-mediated communication is the risk of online pauses, which can not only hamper the interaction, but also have a negative impact on working relationships due to an expectancy violation (Kalman and Rafaeli, 2011). For this reason, email was felt to be too slow and WhatsApp Messenger (*WhatsApp*, 2017) was chosen, which proved effective and especially valuable when one party was delayed for any reason.

Fong, Fong and Li (2011) describe the advantages and disadvantages of wired verses wireless technology in telehealth concluding that 'wireless communication is a preferred option in most telemedicine applications because of the requirements for mobility' - in the setting of static telesupervision, however, we found the opposite to be true. Our initial attempts to make a connection were met with obstacles:

Inadequate connection speed

In their use of telesupervision in an art therapy context, Brandoff and Lombardi (2012) state that what most detracted from the quality of their sessions was the interruption of communication due to loss of internet connectivity. When we first attempted to set up a wireless connection the internet speed was so poor that only audio transmission was possible, it was clear that anything other than minor interruptions would be deeply frustrating and so we opted for a wired desktop connection for its increased reliability (Dudding, 2009).

Organisational constraints

Hebda and Czar (2005) describe the risks inherent in the use of the internet, especially computer viruses and malicious software. This can make organisations rightly cautious about

use of their network, and installation of software. Attempts to circumvent concerns about software by connecting a personal laptop to the network in one practice was not permitted by the owners of the network. The surgery computer was used instead, which connected well to the webcam, and Skype (2017) was easy to download, but SuperTinTin (2017) recording software was blocked by the organisation's firewall. A camcorder was used instead to record the screen directly, which was adequate, but with some loss in video and audio quality. SuperTinTin (2017) was, however, successfully utilised in the other consulting room, and only needs to be installed on one machine to record the conversation. This would be an issue were the firewall to block installation at both sites, however, recording the conversation is not essential for telesupervision to be successful.

Evaluation of the Effectiveness of the Technology

The value of a real world participatory study is that is can reveal unexpected issues. Several were identified:

Sound recording

Sound levels were adequate across the Skype (2017) connection, but there was a problem with SuperTinTin (2017) in that the volume level was different at each site, meaning half the conversation was too loud and the other half too soft. This could be rectified with a standing microphone at one site with adjustable volume.

Lack of wide angle lens

The webcam was not wide angle, which necessitated the trainer and trainee sitting closer together than they felt comfortable - an expectancy violation that could have a negative impact (Burgoon and Jones, 1976; Burgoon, 1979) and was reported as a distraction by the participants.

The 'invisible' supervisor

The trainer and trainee were less aware of the supervisor's presence than if he had been in the room, a phenomenon described by Dudding and Justice (2004) as the supervisor becoming 'transparent'. This had the advantage that the supervisor was less likely to influence the interaction in the manner of the Hawthorne effect (Sedgwick, 2011), and could take notes without causing distraction. However, it made it more difficult to interject, since it was not possible to give any non-verbal cues to indicate a wish to intervene, such as sitting forward or raising a hand.

Ease of recording

The use of video recordings to enhance reflective practice has been well established (Landor, 2015), and an advantage of telesupervision is the ease with which all supervision can be recorded and watched again with recording software such as SuperTinTin (2017) - since there is no need to set up a camera each time, making the recording easier to undertake and less obtrusive to the supervision.

Critical Reflection on the Content of the Supervision

Hawkins and Shohet (2006) describe three key aspects of supervision as developmental, resourcing and qualitative. The observed supervision concentrated on the first and last of these, focusing mostly on the quality of the care delivered, in particular by reviewing the key issues when prescribing contraception.

The trainer tried to engage in the emotional aspects of prescribing contraception to a teenager, which would be more in keeping with resourcing, but the trainee did not engage well with this aspect to the case. The trainer used the feedback technique of questioning (Russell, 1994), but asking questions cannot guarantee the trainee will get to the right answers straight away, and

since change can be frightening, and the mentor is meant to be a 'protector' or a 'counsellor' (Carruthers, 1993) it was right that the trainer did not force this issue.

The developmental aspect of supervision is concerned with the development of skills. Here, the trainer very effectively taught a new concept - that of 'signposting' (Silverman, Kurtz and Draper, 2016) as a useful navigation tool to facilitate asking personal questions.

Critical Reflection on Feedback Given to Trainees and to Peers

The focus of supervision in this participatory study was the supervision of the trainer as an educator, rather than direct supervision of the trainee, and so feedback was given to the trainer, which is a form of coaching - defined by Parsloe (1999) as 'a process that enables learning and development to occur and thus performance to improve.' Feedback needs to be specific in order to be effective (Russell, 1994) and the ability to take notes meant the supervisor was able to use direct quotes in delivering feedback. Kurtz, Silverman and Draper (1998) describe the importance of sharing the agenda with the learner, which helps to answer the 'How am I Going?' question, essential for effective feedback (Hattie and Timperley, 2007). The supervisor therefore tried to keep the trainer's agenda to the fore by asking how he felt the session went, and asking him to name a highlight, before bringing an observation about the effective teaching of signposting.

The problem with the lack of a wide angle lens was not an issue when giving feedback, since it was a one-to-one conversation. Nor was it was difficult to give feedback to a peer, since the trainer and supervisor knew each other well - although this could be different if the relationship were just beginning. What was more challenging, and left unsaid, was the supervisor's relationship with the trainee - was the ES there to supervise her in any way? This relationship was also hampered by the fact that the ES and trainee had not met previously - Martin et al. (2015) showed that the experience of telesupervision can be improved if there is some face to face contact with a supervisee. Were remote supervision to be on-going it would be essential to arrange a face-to-face meeting and work out the basis for this triangle of working relationships. The feedback was entirely verbal, and there could be a role for computer mediated written feedback, although Shintani (2016) found that delays in written feedback reduced its effectiveness and so any attempt to utilise written feedback would need to be timely.

Conclusion

Once technical issues were overcome, Skype (2017) proved effective for clinical supervision. It was safe, rapidly became familiar, and the set up time was offset by a major advantage of DVC - reduced travel times (Johnston, Macdougall and Mckinstry, 2016). Concerns about poor eye contact or inadequate lighting had little material impact on the quality of supervision, and the advantage of being able to record all sessions could add greatly to their reflective value. A wide-angle lens would be a significant improvement to prevent proximity violations, while standing microphones could improve the audio quality, especially in the SuperTinTin (2017) recording. Some system of rapid, asynchronous communication was essential in order to set up the sessions and deal with last minute hitches.

Many examples of telesupervision in the literature involve only a supervisor and supervisee (Brandoff and Lombardi, 2012; Carlin et al., 2013), yet the model examined here involves a triad of supervisory relationships; a key question, therefore, is the exact role of the remote supervisor: are they there primarily to coach the trainer, directly engage in the supervision of the trainee or monitor the quality of the supervision? Each role is valid, but has very different purposes, and the intended role(s) would need to be clearly defined were this to become a standard working practice.

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