Usability of a virtual community of practice for workforce development of clinical supervisors

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Abstract. Workplaces are being transformed by technological change. There is great potential for innovation at educational institutions and in the workplace. Creative and effective use of information communication technology in learning and teaching and for continuing professional development of health professionals is imperative. To determine the usability of a virtual community of practice for clinical supervisors, an online survey was administered prior to attendance at professional development workshops. Clinical supervisors were targeted because they were senior nurse leaders and could promote and model the use of the virtual network within their organisations. Survey findings indicated that a community of practice would be useful for communication about clinical supervision and obtaining information from the University. However, respondents were less certain they would share information by actively contributing to the public mobile learning resources. This study indicates there is considerable potential to build capacity of healthcare professionals through workforce development. Support for clinical supervisors to understand and use mobile learning strategies for continuing professional development and promote life-long learning can assist with realising the vision of the National Workforce Development Strategy.

Keywords. Community of practice, mobile learning, clinical supervision, digital technology, work integrated learning

Introduction

The emergence and growth of digital technology in healthcare and education is well documented [1-4]. Technological change has created innovative opportunities for learning and teaching (L&T) [5]. In 2008 the Australian National E-Health Strategy identified that information communication technology (ICT) skills were an essential part of developing and maintaining a skilled health workforce [6]. However, the development and understanding of ICT literacy among health professionals, and more specifically nurses, is mixed [1, 3, 4, 7-9]. Recently the Nursing and Midwifery Accreditation Council [10] has mandated ICT competency as a core component to be included in all undergraduate nursing programs.

Research was undertaken to increase understanding and explore the knowledge, skills, behaviour and attitudes of supervising nurses' use of social media with the aim of developing a virtual community of practice (CoP) about clinical supervision. The development of CoP and the emergence of digital habitats to support and guide participants in their area of interest has been discussed by researchers such as Wenger et al [5] and Webb et al [11]. These authors identified the importance and value of

professional learning initiatives to progress the transfer of professional learning into in-class practices. The work integrated learning (WIL) environment is similar to those described in the literature [5, 11] where there is a need to ensure that supervising clinicians are prepared for using the mobile learning opportunities available in the workplace for professional development and L&T. This paper describes the preparedness of a group of nurses to develop and engage with a CoP to support their supervision of student nurses during their work integrated practice in a range of healthcare environments.

1. Methods

A cohort of nurses, who clinically supervise undergraduate nursing students in practice, were administered an online survey prior to, or at one of seven workshops. These professional development sessions were conducted as part of a University funded project to facilitate the development of a CoP for clinical supervisors. Minimum risk ethics approval for this research was approved (H12527). Descriptive analysis was conducted using Microsoft Excel (Version 14).

2. Results

Twenty-seven complete responses were received from clinical supervisors who were employed in a variety of healthcare settings of which 72% were from rural and regional areas. More than one-third (38%) of respondents were employed at tertiary hospitals and almost half (48%) indicated their workplace was an out-of-hospital environment. More than half (59%) indicated they had mentored, preceptored or supervised Bachelor of Nursing students for more than five years; 21% for three to five years, 10% for one or two years and 10% for less than one year.

Table 1 indicates the beliefs of clinical supervisors about using digital technology as a mobile learning strategy for communication and continuing professional development at the workplace. The majority of supervisors believed they could learn to use digital technology (85%) so they could share information in a CoP. Respondents indicated that a virtual CoP would always or usually be useful for communicating effectively (74%) about clinical supervision; University information (71%) and for sharing information (70%) with colleagues in the network. Seventy-four per cent of respondents indicated they would join a CoP so they could communicate with the University and other clinical facilitators or supervisors. Almost three-quarters (70%) of this cohort indicated they would share using the micro blog. Respondents were less certain (41%) they would always or usually share information by actively contributing to the blog.

Table 2 shows the frequency of information desired about clinical facilitation and from the University. One-third of respondents indicated they would like to receive weekly information about clinical facilitation; while approximately 60% preferred to receive University information only as required.

Table 1. Beliefs about use of digital technology as a mobile learning strategy

N=27	Always	Usually	Some-times	Never	No answer*
I believe that a clinical facilitator network or community or practice could enable me to communicate effectively with the University about University related information	30%	41%	11%	4%	15%
I believe that a clinical facilitator network or community of practice could enable me to communicate effectively with other clinical facilitators	37%	37%	11%	0%	15%
I believe that I can learn to use the digital technology to enable me to share information with my colleagues in the community of practice and network with them about clinical facilitation issues.	44%	41%	0%	0%	15%
I believe that I will join the clinical facilitator network or community of practice so that I can communicate effectively with the University about University related information	37%	37%	11%	0%	15%
I believe that I will join the clinical facilitator network or community or practice so that I can communicate effectively with other clinical facilitators	44%	30%	11%	4%	11%
I believe that I will use digital technology to share information with my colleagues in the community of practice	37%	33%	15%	0%	15%
I believe I will share by using the SNM PEPCommunity blog comments section	15%	26%	33%	11%	15%
I believe I will share by using the @PEPCommunity community of practice site (Twitter) #PEPCommunity	11%	59%	37%	15%	15%

*May not equal 100% due to rounding.

Table 2. Frequency of information

N=27	At least once per week	At least once per fortnight	At least once per month	Ad hoc, as necessary	No answer*
How often would you like to receive information regarding clinical facilitation?	30%	19%	19%	19%	15%
How often would you like to receive information regarding the University and student information?	19%	15%	30%	59%	15%

*May not equal 100% due to rounding.

Respondents were asked a series of questions regarding their understanding of Web 2.0 terminology. Eighty-five per cent of respondents provided a brief description of what is meant by the term blogging. Twenty-six per cent indicated they had tried blogging themselves. Of those who responded to the question asking to briefly describe what is meant by the term wiki (85%), one respondent indicated "No idea (but will google it immediately!)", however only 16% had previously contributed to a wiki project. Ninety-three per cent of respondents that completed the digital use section of the survey indicated they had been using a computer and the Internet for more than five years. One respondent indicated they had used a computer or the Internet less than two years and one respondent did not answer.

Qualitative information supported the Likert scale responses. Responses indicated there was recognition for the need to learn about mobile learning opportunities for L&T; the ease of access mobile technology afforded in the workplace; and the availability of appropriate mobile learning resources by using Web 2.0 platforms. Supervisors recognised the need to up-skill, commenting:

> "Internet, University website, typing speed and proficiency, medical
> and legal databases, education specific resource and materials"

were required, to be an effective member of the network. When asked about their perception of using digital technology as part of the CoP responses included:

> "I strongly believe that using information technology to enhance our
> communicative channels would be great";
> "I would like to be able to 'tap in' to a site where I could learn from
> other facilitators experiences"; and
> "Being able to keep in touch with students for the duration of the
> placement, keep in touch with UTAS colleagues, access information
> about the placement and acting as a facilitator".

When asked what information they hoped a network would make available to them. Respondents indicated:

> "Pertinent and succinct information that is easy to use and relevant to
> my needs";
> "communication with other facilitators and 24hr, 7day access to
> resources; and "peer support".

3. Discussion

The findings of this study have implications for the usability of a virtual CoP as a strategy for workforce development of clinical supervisors in healthcare environments.

Although the number of respondents was low, the feedback about the cohort initially involved with the implementation of the digital communication strategy indicated the age and gender profile of respondents was similar to the National average [12]. This finding suggests there could be a generational differences that could negatively impact on the usability of a CoP [13, 14]. However, respondents indicated they were aware of the need be digitally literate, so they could build capacity by enhancing the student experience. Comments also indicated they could understand the value of being connected with their colleagues. Almost three quarters of respondents were from regional or rural areas, and a quarter indicated the main focus of their workplace was a primary health environment. The virtuality of the CoP meant that practitioners who are geographically dispersed or isolated could remain connected with

their peers. Approximately half of this cohort identified as nurse educators and more than half had preceptored students for more than five years. Their L&T expertise could increase the usability of the CoP as these senior nurse leaders could guide and mentor less experience clinical supervisors.

More than three-quarters of respondents were enthusiastic in their support of the development of a virtual CoP. Respondents indicated they would always or usually use the digital network for receiving University or clinical supervision information. They also believed they would join the virtual CoP to enable effective communication and sharing of information among colleagues. When asked about using the dedicated blog and micro blog for communication within the CoP respondents were less certain. Approximately 70% of supervisors indicated they would use the micro blog, only 11% indicated they were committed to sharing via this method. Similarly, only 15% of respondents reported they would always use the blog. Conversely, respondents indicated they would be three times more likely to usually use the micro blog for sharing information than the blog. Questions related to seeking understanding about Web 2.0 terminology revealed that clinical supervisors were familiar with these, or were willing to learn. Approximately one quarter of respondents had contributed to wiki projects, which supports the belief that only some supervisors would consider contributing to the blog through the comments option. Additionally, the majority of clinical supervisors indicated they had used computers and the Internet for more than five years. The high level of engagement to share best practice through innovation of a virtual CoP indicates large scope for usability and building capacity within this group of clinicians. Conversely, there is potential for limiting the growth and sharing if supervisors continue or prefer to connect using other private electronic methods, such as email, which may exclude some members of the group and limit conversation.

Respondents indicated a preference to receive weekly information about clinical supervision and updates from the University as required. The desire for frequent and topical information demonstrated these senior clinicians were keen to remain updated and contemporary in their role. It increases the likelihood of their use of the CoP. The limitations of this study include the low number of complete responses; self-selection; and respondents were part of a targeted group of clinical leaders interested in L&T at the workplace.

Technology drives change and these senior clinicians have demonstrated they are keen to engage in effective L&T communication strategies including joining a virtual CoP. Additionally, their beliefs about learning how to use digital technology to connect and share with their peers could build capacity to support their productive potential in the workplace. Further exploration of how clinical supervisors use information they receive via the CoP is warranted. Moreover, evaluation of this communication strategy as a method to build capacity of clinical supervisors that translates into improved quality of L&T of students in the workplace is necessary for informing design of workforce development opportunities. To support the promotion of a thriving virtual CoP within healthcare environments there will need to be the development of a code of conduct. The usability of mobile learning networks will only be effective when appropriate and robust policy is developed to guide and support clinicians to learn how to use digital technology in situ.

4. Conclusion

Clinical supervisors believed that a virtual CoP could improve communication and enable access to relevant and contemporary information about clinical supervision. Policy development regarding digital communication within healthcare organisations needs to be mindful of the benefits of information sharing within and between groups of clinicians that are employed within their facilities. The opportunity to develop sustainable support and guidance of clinical supervisors needs to be encouraged. It will enhance opportunities for building capacity and provide a safe, high quality clinical experience for students. Further research into developing and evaluating workforce development opportunities is required to guide policy direction about safe and appropriate use of mobile learning strategies. Over time, a supportive environment could facilitate cultural change and enable clinical supervisors to model appropriate behaviour to ensure improved outcomes for patients and learners in the workplace.

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