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Promoting Participatory Health: Connecting Nurses and Consumers at Point of Care to Enhance Safety and Quality in Australia

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Abstract. Recent research involving representatives from nursing professional organisations found a lack of governance regarding access and use of mobile technology has led to the maintenance of outdated safety and quality strategies. Current organisational policies and guidelines preclude nurses from aligning with the Australian National Safety and Quality in Health Service Standards. Continuance of the mobile technology paradox, where there is the inability of nurses to access and use mobile technology at point of care, hinders the promotion of positive two-way communication between consumers and nurses as the lack of connectivity impedes opportunities for nurses to partner with consumers to promote participation in their own healthcare, develop mutuality of understanding, and improve health and ehealth literacy. Legitimisation of the use of mobile technology at point of care is necessary to support meeting consumer expectations, improve the consumer experience and promote participatory health, while contributing to delivery of contemporary healthcare.

Keywords. Consumers, health literacy, mobile technology, nurses, participatory health, quality, safety.

Introduction

The evolution of mobile and ubiquitous computing has outpaced governance of health technology and informatics within healthcare environments. In healthcare there continues to be an inability of nurses to use mobile technology at point of care, despite the current evidence [1] and support [2] in favour of enabling access to, and use of, mobile technology at the bedside for the benefit of consumers and their carers [3, 4]. It is acknowledged that health professionals, especially nurses, need workforce development opportunities to become capable and competent end users of mobile technology for the purpose of providing effective, safe and high quality two-way communication between nurses and consumers [2].

The Australian Digital Health Agency Digital Health Strategy (ADHA Strategy) [2] supports the development of ehealth literacy through Strategic Priority 6, which states Australia needs a "workforce confidently using digital health technologies to deliver

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health and care" [2 p.44]. However, current organisational policies and guidelines frequently do not enable nurses to align with the Australian National Safety and Quality Health Service (NSQHS) Standards [5]. Clinical Governance (Standard 1) and Partnering with Consumers (Standard 2) are unable to be fulfilled due to the mobile technology paradox, whereby nurses are unable to access and use mobile technology at point of care, although the benefits of its use are now widely accepted [1, 4, 6]. Within NSQHS Standard 1 - Patient Safety and Quality Systems (1.10) details risk management within health service organisations and mandates that risks to the workforce and consumers are identified and documented; acted on; and reported. Standard 1 is intended to protect organisations and consumers, however, organisational policies frequently inhibit the advancement of mobile technology use as a legitimate nursing function [7]. The credentialing and scope of clinical practice item (1.23c) has also been ignored in recent updates of standards or guidelines [7]. This item seeks review of the scope of clinical practice "whenever a new clinical service, procedure or technology is introduced" [5 p.10]. Additionally, the mobile technology paradox is maintained within Standard 1 through the evidence-based care item (1.27) indicating health service organisations have processes that "provide clinicians with ready access to best practice guidelines…and decision-support tools…" [5 p.11], such as mobile technology, which currently nurses cannot legitimately access and use.

The criteria of Partnering with Consumers (Standard 2) [5] provides guidance to organisations regarding patients as partners, including supporting health literacy through effective communication. The item integrating clinical governance (2.1) indicates that clinicians act to implement policies and procedures for partnering with consumers, manage risks and identify training requirements to enable effective partnerships. Current national and organisational governance arrangements promulgate the continuance of a lack of connectivity between nurses and patients that impedes opportunities for partnering with consumers to promote participation in their own healthcare [7]. This paper presents the results of recent research undertaken with representatives from nursing professional organisations to understand current policy and understanding about the use of mobile technology at point of care.

1. Methods

This interpretive description research undertaken during December 2016 and January 2017 used purposive sampling of representatives from Australian nursing professional organisations. Seven national organisations and 52 Coalition of National Nursing and Midwifery Organisations members were invited to participate. Recruitment was by email and telephone invitation. An information sheet was provided prior to interview and consent was recorded using Skype for Business before commencement of each individual semi-structured interview. The interview schedule of ten questions was informed by previous research [8] and included prompts and potential probing questions to maintain congruency of questioning.

A systematic approach consisting of trial coding with member checking and development of a codebook provided the framework for analysis [9]. Familiarisation with the data was undertaken by listening to the interviews. This process minimised potential for error and ensured accuracy of the data collected. To ensure rigour, constant comparison was undertaken by the authors [9]. Analysis was conducted to identify key

themes latent in the transcribed data (Figure 1). Risk management was found to be a main theme.

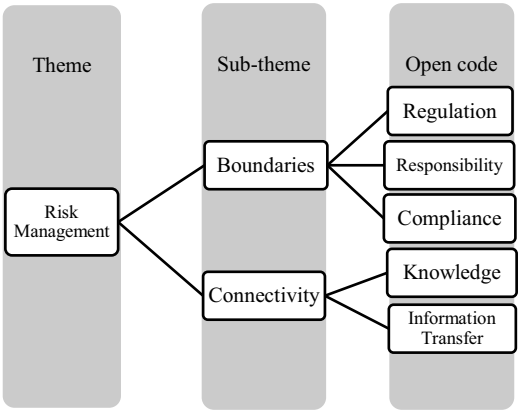

Figure 1. Coding process.

Prior to commencement of the study ethics approval was gained from The University of Tasmania Social Sciences Human Research Ethics Committee (H0016097).

2. Results

There were four female and two male participants who identified themselves as senior members of the nursing profession. They were paid employees or volunteers within the Coalition of National Nursing and Midwifery Organisations. Each interview lasted between 17 and 54 minutes and was related to time available of participants and knowledge regarding the topic of between nurses and consumers The theme of risk management was comprised of two sub-themes coded as *boundaries* and *connectivity*.

2.1. Boundaries

Participants indicated the capacity for contributing to positive two-way communication with consumers was hindered by a range of *boundaries* that included governance structures at a professional or organisational level, that impeded advancement of nursing practice. Standards and guidelines regulate nursing practice and it is the responsibility of every nurse to observe professional and organisational requirements. Ensuring compliance with their scope of practice impacted on how participants understood mobile technology was risk managed within healthcare. Participants noted there were different *boundaries* that shaped how they practised. Each sub-theme within the theme of risk management is explained in detail below.

Current risk management strategies prevent nurses learning or promoting health literacy or ehealth literacy with consumers. One participant demonstrated their frustration and concern regarding lack of direction regarding regulation by stating:

"I found it confusing because it is contradictory. So, they do say you can't have your device on you and at the same time they say that you should be using your device for - you know, there's all these great things available to you to help your learning and to look up information. So, as far as safety goes, I don't know that they - safety has only

been really discussed in terms of patient privacy and confidentiality and I guess, patient satisfaction and perception is part of the issue as well. So, they don't see it as an unsafe or maybe see it as an infection control or anything like that that would impact on patient safety. They see it as patient perception, that nurses in particular aren't working, they're using their mobile devices for personal use in the workplace rather than using it for work purposes" (Participant 4).

Participants acknowledged there were challenges to patient safety and quality of healthcare delivery regarding responsible use of mobile technology. They understood the need to only access and use mobile technology when it appropriate and safe to do so. However, interviewees viewed inappropriate use or distraction as a lesser concern to positive health outcomes or meeting consumer expectations than privacy and security issues:

"So there is risk to actual patient safety, never mind by being distracted and an adverse event happening to a patient and then at risk to privacy of the patient and confidentiality of the patient" (Participant 2).

Compliance with practising within their scope of practice was paramount for participants. They recognised mobile technology was a decision-support tool, however, they understood there were perceived risks by allowing its use. Participants also acknowledged access and use of mobile technology at point of care could be beneficial for contributing to positive health outcomes:

"patient safety is going to be paramount so that would always be the position. I think it was also be our position that this increases the ability of nurses to actually provide good healthcare. So you would have to logically say it's a positive thing. Like anything though, it's around the implementation of the user and we'd have to have natural protections in terms of privacy or appropriateness. And clinicians would have to still be quite conscious of the importance of them actually acting within their scope of practice and their professional responsibilities. So to me it's just a technology" (Participant 6).

2.2. Connectivity

Participants perceived using mobile technology at point of care was a decision-support tool that contributed to knowledge development enabling delivery of safe, efficient and effective healthcare. Interviewees understood the utility of incorporating mobile technology in nursing practice:

"So to me it's just a technology. It's not actually any different to if you had a textbook or if you had something else, really in that sense" (Participant 6*).*

Utilisation of mobile technology at point of care in real-time was reported to be of benefit as an educational tool that could support safety and quality of healthcare delivery from the perspective of carers and consumers. The two-way transfer of information between nurses and consumers enabled the development of positive participatory health learning moments:

"I can see a lot of points in time where I could have benefited from further information and knowledge about things. Would certainly have improved the safety of clients and the outcomes for them even if it wasn't actually – yeah, huge safety issue. It would still have impacted on the outcomes for them in that regard" (Participant 3).

3. Discussion

Findings of this research demonstrate that nurses within the peak nursing professional organisations believe safety and quality in health service delivery could be improved by the implementation of mobile technology at point of care. Participants acknowledged there was a need for employing risk management strategies to support safe, effective and efficient healthcare when using mobile technology to promote participatory health. Nurses indicated that the sub-themes of *boundaries* and *connectivity* were intertwined, especially when access or use was denied or hindered. The lack of acknowledgement of the value of utilising mobile technology at point of care indicated that organisations have an opportunity to support the implementation of the ADHA Strategy Priority 6, [2] and the NSQHS Standards [5] to avoid missing opportunities to promote a mutuality of understanding [3] and support consumers in developing health and ehealth literacy (1.27 and 2.1) [10-12].

Cultivation of collective wisdom is foundational to participatory health [13]. Participants suggested timely access for seeking or retrieving evidence-based information in real-time at point of care was beneficial for supporting positive participatory health learning moments. Real-time access also had the potential to support decision making and reduce the risk of error, which are embedded in the NSQHS Standards (1.10, 1.23, 2.4-2.7). The research demonstrates implementing the access and use of mobile technology as a legitimate nursing function has support from nursing professional organisations. The introduction of this 'new' technology (1.23) will be governed by Patient Safety and Quality Systems (Standard 1) and Partnering with Consumers (Standard 2) standards within Australian healthcare environments [5]. By organisations committing to the ADHA Strategy [2] and supporting the full implementation of the NSQH Standards [5] will promote connecting nurses and consumers to develop two-way communication. This improved *connectivity* will contribute to advancing nursing practice, while promoting safe quality healthcare.

4. Limitations

A limitation of this study was the complexity of gaining access to National representatives within large organisations and the poor response from members of voluntary organisations which impacted on recruitment of participants. The release of the Australian College of Nursing, Health Informatics Society of Australia and Nursing Informatics Australia joint draft position statement [14] in February 2017 prompted cessation of recruitment because the researchers believed it could influence the responses of future participants. However, this action contributed to a low recruitment of participants that has reduced the generalisability of the findings.

5. Conclusions

Organisations now have a mandated opportunity to reorientate safety and quality strategies to enable connection of nurses and consumers at point of care. Implementation of the ADHA Strategy and the NSQHS Standards in collaboration with the Australian College of Nursing, Health Informatics Society of Australia and Nursing Informatics Australia will advance nursing practice and promote participatory health. By enabling

mobile technology to become a legitimate nursing function will ensure nurses can connect with consumers to deliver contemporary healthcare and contribute to improving health outcomes.

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