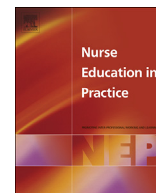
Nurse Education in Practice 23 (2017) 1–7

Contents lists available at ScienceDirect

Nurse Education in Practice

journal homepage: www.elsevier.com/nepr



Clinical education

Nurse manager and student nurse perceptions of the use of personal smartphones or tablets and the adjunct applications, as an educational tool in clinical settings

George McNally [a, b, *], Rosemary Frey [a, b], Michael Crossan [a, b]

[a] School of Nursing, Northtec Raumunga Road, Whangarei, New Zealand
[b] School of Nursing, University of Auckland, Grafton Road, Auckland, New Zealand

A R T I C L E I N F O

Article history:
Received 17 May 2015
Received in revised form
6 October 2016
Accepted 6 December 2016

Keywords:
Nursing education
Undergraduate student nurses information technology
Smartphone
Personally owned handheld referencing technology

A B S T R A C T

Personally owned handheld referencing technology such as smartphones or tablets, and the adjunct applications (apps) that can be used on them, are becoming a part of everyday life for the New Zealand population. In common with the population at large, student nurses have embraced this technology since the advent of the Apple iPhone in 2010. Little is known internationally or in New Zealand about the way student nurses may apply personally owned handheld referencing technology to their education process. The perceptions of New Zealand nurse managers, toward personally owned handheld referencing technology, could not be located. Using a qualitative descriptive methodology, semi structured interviews were conducted with New Zealand student nurses (n = 13), and nurse managers (n = 5) about their perceptions of use of personally owned handheld referencing technology as an educational tool in clinical settings. A thematic analysis was conducted on the resulting text. Student nurses said they wanted to use their own handheld referencing technology to support clinical decisions. Nurse managers perceived the use of personally owned handheld referencing technology as unprofessional, and do not trust younger cohorts of student nurses to act ethically when using this technology. This research supports historical research findings from the student perspective about the usefulness of older hand held referencing devices to augment clinical decisions. However, due to perceptions held by nurse mangers regarding professional behaviour, safety and the perceived institutional costs of managing personally owned handheld referencing technology, the practice may remain problematic in the studied setting.

© 2017 Elsevier Ltd. All rights reserved.

1. Introduction

Mobile phone technology has developed in a relatively short time frame. From the inception of the telephone to the present day, telephones have progressed beyond the recognition of the early stakeholders (John, 2010). Smartphones and the apps that can be used on them have become the modern communication tool of choice for many (White, 2010). Clough et al. (2007) concluded that handheld referencing technology such as smartphones have now become part of everyday life, and learners are using handheld referencing technology to learn in an informal way. Statistics New Zealand (2015) report over 3.9 million mobile phones were connected to the internet in New Zealand, this represents an increase of 7% in one year. Higgins (2013) reports an increasing trend in education, where students are now encouraged to bring, and use personally owned referencing technology to complete school work. Nursing schools, and nursing educators, were early adopters of hand held referencing tools to augment student learning. However, these hand held referencing tools were not traditionally owned by the student (Havelka, 2013). Research has demonstrated that student nurses (undertaking a three year bachelor of nursing degree) feel more confident and safer in practice if they are permitted to use hand held referencing tools in clinical practicum (Altmann and Brady, 2005; George and Davidson, 2005; George et al., 2010; Koeniger-Donohue, 2008; Rowles and Russo, 2009). The practice of using personal smartphones to inform clinical practice is on the increase (Grabowsky, 2015; Cho and Lee, 2016). George and

* Corresponding author. School of Nursing, Northtec Raumunga Road, Whangarei, New Zealand.
E-mail addresses: gmcnally@nothtec.ac.nz (G. McNally), rfrey@auckland.ac.nz (R. Frey), m.crossan@auckland.ac.nz (M. Crossan).

http://dx.doi.org/10.1016/j.nepr.2016.12.004
1471-5953/© 2017 Elsevier Ltd. All rights reserved.

DeCristofaro (2016) discuss the importance of educating student nurses in the use of personal smartphones and apps to inform clinical decisions. However, some student nurses have expressed concerns about using this technology (Beard et al., 2011).

McBride (2015) highlights the lack of research regarding perceptions regarding personal smartphone use in clinical practice. The perceptions held by international or New Zealand nurse managers (a nurse with day to day managerial responsibility for a ward in a hospital) about personally owned handheld referencing technology could not be located in the literature search. However, two studies were located identifying perceptions held by senior nurses and supervisors. The roles of senior nurses and supervisors were not defined in these studies. Wittmann-Price et al. (2012) commented that senior nurses perceived student nurses as better prepared for practice, and student nurses who used smartphones to reference clinical matters, were perceived as more confident at delivering nursing care. Findings from Johansson et al. (2012) indicated that supervisors of student nurses perceived smartphones could be of benefit as a considerable time saving tool, especially if the patient's electronic health record could be accessed. Johansson et al. also uncovered perceptions by the same nursing supervisors that the use of a smartphone in clinical may be viewed as unprofessional by patients.

Many other researchers have commented on the safety of smartphones in clinical settings. Wu et al. (2010) described inappropriate and unprofessional use of smartphones by doctors. For example, continuing to check the smartphone, rather than engaging with the patient or other health care workers. Lindley and Fernando 2013 expressed concerns about the advanced capabilities of smartphones. Specifically, high resolution cameras, video and audio recording features that can instantly, and wirelessly connect with remote storage facilities and social media, may represent a threat to the security of health data. Barton (2012) predicted because of the advanced functionality, and use of personal smartphones in health, breaches of patient confidentiality and ongoing risk to patient data will proliferate. Concern has been raised regarding student nurses becoming distracted when using a smartphone in clinical areas, and the possibility of that distraction causing harm to patients (Cho and Lee, 2016). McBride et al. (2015) supported the view of distraction by smartphones having a detrimental effect on nursing performance.

The use of personal smartphones as a tool in any workplace presents significant security problems if used improperly (Gill et al., 2012; Ready et al., 2014). Deshmukh and Wadhe (2012) describe the main risks to security surrounding personally owned handheld referencing technology use as; the loss of the device, unauthorised access of dedicated Wi Fi networks, apps containing viruses or other malware, remote data storage use and using public access Wi Fi. Strandell-Laine et al. (2015) concluded a gap exists in the research surrounding the use of personally owned handheld referencing technology by student nurses.

I am a lecturer, and clinical tutor of student nurses, who are undertaking a three year Bachelor of Nursing Degree in a regional New Zealand Polytechnic. It is my observation most student nurses own and use a very sophisticated smartphone. I have observed student nurses using these devices for referencing during their clinical placement. I have also witnessed objection from nurse managers because of this practice.

1.1. Aims

This qualitative study aimed to understand the perceptions of the major stakeholders for the application of personal hand held referencing at the bedside. The aims set for this study were to identify the perceived disadvantages and identify positive perceptions of personally owned handheld referencing technology for student nurses in clinical practicum.

2. Methods

2.1. Design and setting

A qualitative descriptive design and interpretive approach were used to meet the stated aims of the research. Semi structured interview schedules were used to conduct focus group and individual interviews. Two settings were used to gather the data from the participants. The first was a New Zealand regional polytechnic offering a Bachelor of Nursing degree. The second setting was the main district hospital contracted by the regional polytechnic to provide student nurses with clinical practicum.

2.2. Sample

Purposeful sampling was used to select the study population of student nurses and nurse managers. Thirteen students and five nurse managers participated in this study. Nurse managers and student nurses were selected for this study because of their ability to comment on their experiences with smartphones in clinical areas. The nursing student sample consisted of thirteen female student nurses representing 6.5 percent of the total possible 200 full time equivalent cohort from the School of Nursing. The students were between 25 and 35 years old. Nurse managers and student nurses were selected for this study because of their ability to comment on their experiences with personally owned handheld referencing technology in clinical areas. All participants declared that they were proficient with personal smartphones at home, work and study. The five nurse manager respondents had control over the day to day management of a ward, or wards in the hospital. The age range for nurse managers was 45–55years.

Any student nurse who was dependent on the researcher for assessments of their academic or clinical performance was excluded from the study. This was to limit the perception of coercion. Student nurses, who had no experience of clinical practicum, were also excluded, because the focus of the investigation was the perceptions of student nurses in clinical practicum. Nurse managers, who did not have day to day managerial control over nursing practice standards were excluded. Fundamental to the research was the perceptions of those nurse managers who determine standards of practice in their area of management.

2.3. Ethical considerations

All research, conducted on humans, that originates from the University of Auckland, must first seek approval from the University of Auckland Human Participants Ethics Committee (UAHPEC). UAHPEC approved this study for three years from December 18th, 2013 (approval number 011330). All participants were volunteers. No data that was collected could be considered as unlawful, and no attempt was made to deceive the participants.

2.4. Data collection

Two focus groups were conducted with the student nurse participants. However, appointment commitments in the diaries of responding nurse managers made collecting group data unfeasible. Appointments were made on a one to one basis with nurse managers, at a time and place convenient to them. The discussions were audio recorded with participant consent using an iPad, and an iPhone. Data saturation was reached by the fourth interview with nurse managers. Although homogeneity of data was seen within

Download English Version:

https://daneshyari.com/en/article/4940521

Download Persian Version:

https://daneshyari.com/article/4940521

Daneshyari.com