

Nursing Students' Opinion on the Use of Smartphone Applications (Apps) in Clinical Education and Training: A Study Protocol

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Abstract. Nurse educators are exploring different mobile technologies to provide additional support to nursing students in clinical practice. However, the view of nursing students on the use of smartphone applications (apps) to enhance clinical education has not been explored. This proposed study will use a self-reported questionnaire to examine the opinions of nursing students on the current and potential use of smartphone apps when training in clinical settings. Descriptive and inferential statistics will be performed on the quantitative data. Qualitative data from open ended questions will be thematically analysed using the framework approach. This will be the first study to examine the use of smartphone apps as a support in clinical teaching from a students' perspective. Their opinion is vital if the right mobile technology is to be designed and implemented.

Keywords. Nursing student; Education; Clinical practice; Mobile technology; Smartphone; Mobile application; App

1. Introduction

Nursing students encounter many challenges when learning in clinical practice as they apply theoretical knowledge and practical skills gained in academic settings in real-world complex healthcare settings [1]. Nurse educators are exploring the use of mobile technologies to support nursing students in clinical training as they provide easy access to quality educational material at the point of care [2]. The perspective of all stakeholders needs to be taken into account to ensure that mobile devices and applications are designed, developed and implemented appropriately [3].

2. Methods

The aim of this study is to understand the perspectives of nursing students in relation to using mobile technology, in particular smartphone apps, to enhance their education and training in clinical environments. It was informed by an extensive literature review

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undertaken on the use of mobile technology in clinical nursing education [2]. The study will adopt a descriptive cross-sectional design and use a self-reported questionnaire that will be distributed to undergraduate nursing students. Ethical approval has been sought and granted from the appropriate institutional ethics committees.

2.1. Recruitment & Data Collection

Convenience sampling will be used to reach groups of students from a Bachelor of Science (B.Sc.) Nursing programme. Paper-based surveys will be distributed at the end of well-attended teaching sessions to gain the maximum number of respondents.

2.2. Data Analysis

The quantitative results will be analysed using 1) descriptive statistics, to describe the number and type of students and the kinds of mobile platforms and apps they currently use, and 2) inferential statistics, to derive meaningful interpretations between different student groups for example the educational content they would like included in future smartphone apps. Qualitative data from open ended questions will be thematically analysed using the framework approach [4].

3. Discussion

As mobile technology advances and its use continues to proliferate, the boundaries are beginning to blur between traditional approaches to learning and those emerging through electronic learning (eLearning) and mobile learning (mLearning). This study will lead to a more in-depth understanding of what mobile technologies and applications nursing students currently employ during clinical placements to support their learning needs. It will also reveal students' opinions about what educational resources would be useful in a smartphone app, and the factors that affect how they use mobile devices in clinical settings. The findings of this study could be used to improve how mobile applications are designed and delivered in future nursing education.

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