AMCIS 2019 Cancun: A Mobile Nursing Solution
TREO Talk Paper

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Abstract

In recent years, the serious consequences of medical errors are being realized by both healthcare practitioners and the public because of the critical direct injury towards the involved patients and the high indirect costs subsequently. The utilization of information and communication technology (ICT) in this field is recognized to have the potential of improving the quality of clinical treatment and reduction of such medical errors (Pandey & Bhatt, 2014). To achieve safe and high-quality healthcare service, a closed-loop medication administration is an efficient solution since all the processes are monitored and recorded by the system. Among all the clinical staff, nurses play the most integral role in the whole patient care process in hospitals, including medication administration process with the potential of the medical errors to be recognized, handled and prohibited by nursing staff (Gaffney et al., 2016). Mobile nursing systems may have the possibility to improve the efficiency and patient safety through the achievement of closed-loop medication administration.

This study aims to explore the following major question:

How can a mobile nursing system be used to achieve closed-loop medication administration to deliver high quality and safe nursing care?

In order to answer this key question, the following questions are also investigated:

i. What are the key issues in designing and using mobile nursing system in the implementation of the closed-loop medication administration?

ii. What are the benefits and problems when utilizing mobile nursing system to achieve closed-loop medication administration?

Using a Design Science Research Methodology coupled with user centred design principles and co-creation, an exemplar case study of a large hospital in China is selected. The prototype solution is developed by incorporating a mixed method approach. The developed solution now has to be tested to assess fidelity, user acceptance and satisfaction. Key clinical and technical outcomes as well as patient and clinician perspectives form an integral part of this assessment.

The developed solution has both practical implications; namely, the potential to significantly reduce the impact of medication errors and theoretical implications including advancing the theory on the application of design Science Research Methodology coupled with co-creation and user centred design in healthcare contexts.

References
