Nursing Education Research Conference 2020
Does Quick Response Technology (QR) Used by Student Nurses in Clinical Impact Learning?
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Purpose:
The purpose of this research study is to implement an innovative, educational intervention to undergraduate nursing students in the patient care setting, and then evaluate its impact on knowledge, skills, anxiety, and self-efficacy. The use of mobile technology for teaching and learning is transforming academia (Day Black 2015). However, the use of smartphone and tablet technology in nursing education is variable and controversial, even though healthcare is considered a highly technical environment. Mather (2018) supports the use of mobile technology in undergraduate nursing curriculum as well as the importance of modeling digital professionalism to help students develop the knowledge, skills, and attitudes to become competent users of mobile technology in the patient care setting. Nursing informatics experts have endorsed the use of smartphones by undergraduate nursing students to better support competent nursing care (TIGER, 2009). The overarching goal is to continuously improve and advance our teaching methods, while pursuing innovative educational ideas. The nursing students from a study by Patterson, et al. (2013, p. 417) stated that the use of mobile technology "lowered my stress about getting necessary information during clinical practice and increased my ability to independently get information without asking my clinical instructor." This study is a mixed methods design, with a convenience sample size of ~100 undergraduate nursing students and ~20 clinical nursing faculty. The educational intervention will include the use of a mobile scanning application, as well as a smartphone or electronic tablet device. Newly created Quick Response (QR) Codes will be linked to essential educational materials taught in didactic class and put into a pocket guide and given to students to use in clinical as a resource. Tracey, et al. (2013) engaged their nursing students in an innovative learning activity linking QR codes to a step-by-step demonstration of nursing skills and found that the use of QR codes enabled student autonomy by promoting self-directed learning.

Methods:
A variety of data will be collected pre and post the educational mobile application intervention. Descriptive statistics as well as parametric/non-parametric analyses will be conducted for the quantitative data; while the qualitative data from a post-intervention faculty focus group will be reviewed and summarized for common themes

Results: Data will be collected in November and analyzed in December.

Conclusion:
By integrating technology-based education at the point of patient care, this may have the potential to better connect the knowledge and theory learned in the classroom setting to the actual patient care performed at the bedside thereby closing the theory-practice gap which according to Rajeswaran (2016), can have negative impact on a student's learning. If nursing students can improve their knowledge, skills, anxiety levels, and self-efficacy, this may better support their successful transition to professional practicing nurses in the healthcare environment.

Title:
Does Quick Response Technology (QR) Used by Student Nurses in Clinical Impact Learning?

Keywords:
Clinical nursing student anxiety, Mobile technology and Quick response Technology

Abstract Summary:
Using QR technology with nursing students in clinical will provide useful resources at point of care, learned in didactic or skills lab and helping to bridge the theory practice gap. This technology can also help decrease student anxiety, improved self-efficacy and knowledge, can improve patient safety, and student learning outcomes.

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Author Summary: Dr. Kenny's research interests center around improving student outcomes in clinic by decreasing anxiety and improving self-efficacy. Lee-Ann loves to integrate technology and innovative teaching strategies with students. She has done several poster presentations, and a Podium presentation at the 2019 QSEN conference

in Ohio. Incorporating QR technology into student's clinical experience brings valuable resources from skills lab and the classroom to bedside. This decreases student's anxiety, improves self-efficacy and student overall learning outcomes.