“Using QUICK RESPONSE (QR) Codes for Healthcare Professional Students in the Clinical Setting to Improve Patient Care”

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Disclosure

I have no conflicts of interest to disclose
Participants will analyze the usefulness and ease of QR Technology with nursing students.

Participants will identify how QR technology can promote patient safety, reduce anxiety, increase knowledge and self efficacy during student/patient interaction.

Participants will learn to create a QR code.
Objectives and Aim of Project

Objectives

- Promote innovative learning opportunities
- Educate nursing students and faculty
- Enhance student nurses’ ability to connect
- Improve students’ perceptions

The Aim of this study was to implement an innovative, educational intervention to undergraduate nursing students in the patient care setting, and evaluate its impact on knowledge, skills, anxiety, and self-efficacy. All of which can impede the ability to practice safe nursing.
Literature Review

**QR CODES**
- Enabled student autonomy by promoting self-directed learning.

**ANXIETY**
- Fear of harm to patients (Sun et al. 2016)

**TECHNOLOGY**
- Decrease in medical errors thus improving patient safety during clinical experiences (Day-Black & Merrill, 2015).

**SELF-EFFICACY**
- Improved knowledge and self-efficacy were seen in the study conducted by Kim & Suh (2018) which used mobile technology linked to nursing skills.

**Knowledge- Theory-Practice Gap**
- Theory-practice gap can negatively impacting student learning, generating conflict. Rajeswaran (2016)

**BEST PRACTICE**
- Recognizes and recommends the utilization of informatics in providing patient center care (AACN, 2010; IOM, 2010; NLN, 2008; QSEN, 2018)
This educational intervention

9 - Week Intervention

Mixed methods design, with a convenience sample size of ~100 undergraduate nursing students and ~8 clinical nursing faculty.

Pre & Post Survey & Faculty Focus Group

Descriptive statistics as well as parametric/nonparametric analyses was conducted for the quantitative data

Qualitative data from faculty focus group was reviewed and summarized for common themes.
TECHNOLOGY USED

ATI (2016)

RCODEMONKEY (n.d)
20 Questions created for this study based on the information provided in the QR code booklet.
Quantitative Results

Knowledge Quiz Pre & Post Survey
General Self-Efficacy (GSE) 10 item survey, (Schwarzer & Jerusalem, 1995) Directions added “When I am participating in patient care nursing clinicals, Likert type scale ranging from 1 to 4

- 1 = Not at all true
- 2 = Hardly true
- 3 = Moderately true
- 4 = Exactly true
Quantitative Results

GRE Pre and Post Survey

[Box plot showing comparison of General Self Efficacy between Pre-Survey and Post-Survey]
STATE TRAIT ANXIETY INVENTORY

State Trait Anxiety Inventory (STAI) (Short Version; Marteau & Bekker, 1992). Directions added “when performing assessment, and psychomotor nursing skills on patients in clinical:

Likert type scale ranging from 1 to 4

- 1 = Not at all
- 2 = Somewhat
- 3 = Moderately
- 4 = Very much
Quantitative Results

Pre & Post State Anxiety Inventory

[Box plot showing the distribution of State Trait Anxiety Inventory scores before and after a survey.]
QR MONKEY STATISTICS

25 Codes
Scanned: n=60
Student:

- 6 Questions put into Qualtrics Post Intervention
- Questions asked on Student Perceptions of Technology Usage in Nursing Education
Post Study Questions to Students

**Does Tech Help or Hurt in Clinicals**
- Pre or Post Survey: Post Survey
  - Limit
  - Enhance
  - No Impact

**Tech Use in Quality of Care**
- Pre or Post Survey: Post Survey
  - Yes
  - No
  - Maybe

**Stress levels using Tech in Clinicals**
- Pre or Post Survey: Post Survey
  - Decrease Stress
  - Increase Stress
  - No Change

**Did App Help Learn Info for Safer Patient Care?**
- Pre or Post Survey: Post Survey
  - Yes
  - No
  - Maybe
Qualitative Results - Faculty

N=4, 5 questions

THEMES:

I LIKE THE CONCEPT

CAN BE HELPFUL IN CLINICAL

CANNOT CONTROL HOW IT'S USED

DID NOT OBSERVE STUDENTS USING

CONCERNS ABOUT CELL PHONE POLICY

LIMITED SPACE ON UNITS FOR TEXTBOOKS
How to Create a Code
References


