

The Effect of Simulation on the Self-Confidence of Newly Licensed Graduate Nurses

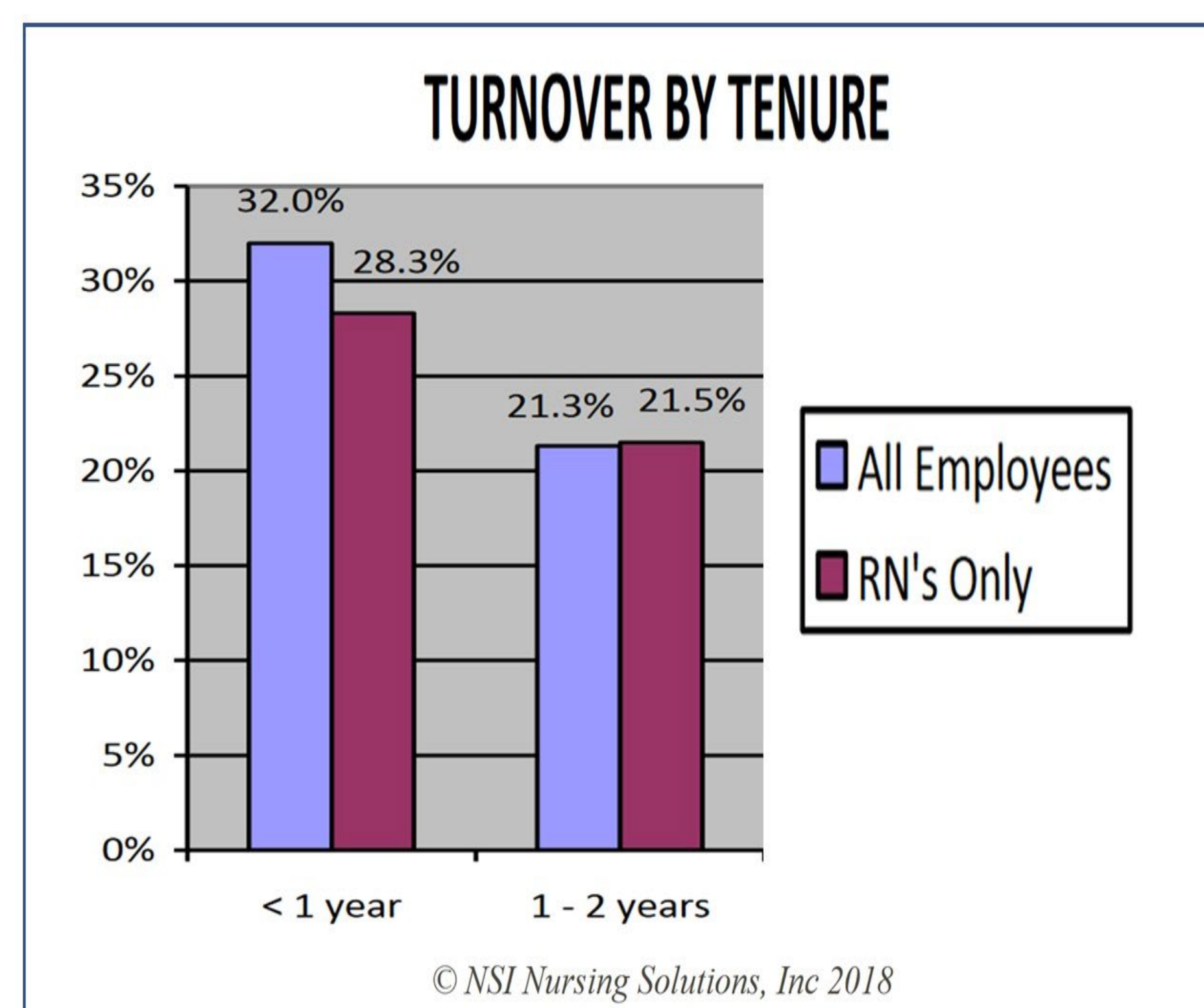
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Abstract

Newly licensed graduate nurses (NLGNs) enter practice with basic critical thinking skills and a large body of foundational knowledge but minimal practical experience. This has been shown to have a negative impact on nurses self-confidence and anxiety as they enter clinical practice. One possible solution is the use of simulation to supplement traditional undergraduate clinical training. This study explores the relationship between simulation in clinical training and the self-confidence and anxiety of NLGN.

Background / Significance

- NLGNs are placed in practice roles that are based on the needs of the facility rather than their expertise or experience.
- New graduates experience transition shock during the first two years.
- NLGNs (91%) feel stressed by their RN jobs, and 33% will leave within 1–2 years.
- NSI solutions study (2018) showed that 28.3% of all new RN hires left within a year, and 49.8% exited in less than two years of service.



- The organizational cost of nurse turnover is as much as \$6.4 million annually for a large hospital.
- An NCSBN simulation study (2014) indicated that up to 50% simulation can effectively supplement traditional clinical learning experiences.
- The Board of Nursing (in several states) recognizes that simulation with traditional skills lab practice and direct patient care experiences can effectively prepare students for independent clinical practice.

Aim of the Study

Primary Aim:

The study will investigate NLGNs' perception of the effect of simulation activity on self-confidence and anxiety when making clinical decisions in their current nursing practice.

Secondary Aim:

The study will determine if the amount and type of simulation completed during nursing undergraduate education correlates with their perception of self-confidence and anxiety when making clinical decisions.



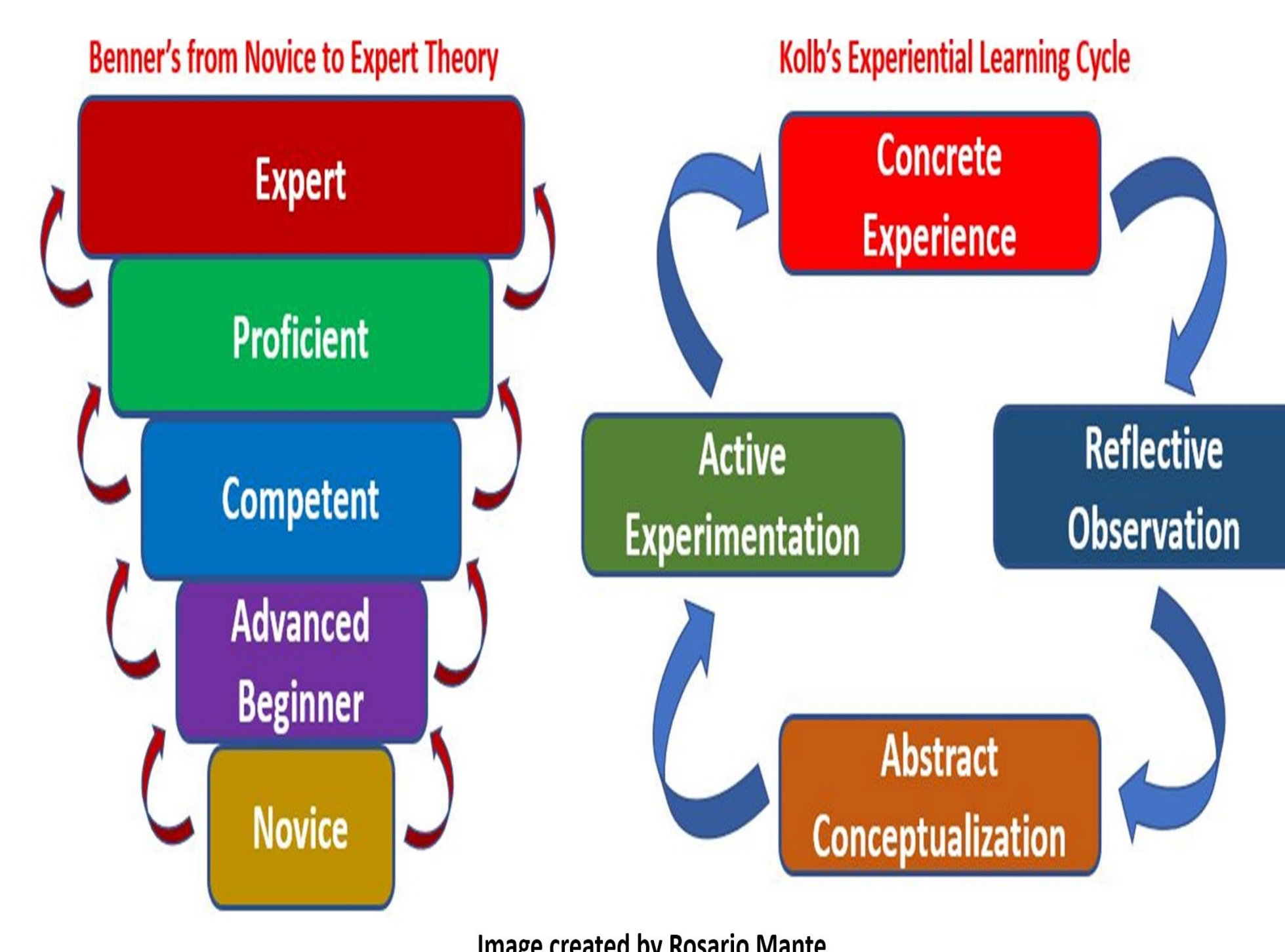
Research Question

Does simulation used in nursing clinical education impact self-confidence and anxiety in making clinical decisions in their current practice?

Hypotheses:

- H_0 : The use of simulation during undergraduate nursing programs is not related to perceived self-confidence and anxiety in making clinical decisions by NLGNs.
- H_a : The use of simulation during undergraduate nursing programs is related to an improvement in perceived self-confidence and a decrease in anxiety to making clinical decisions by NLGNs.

Theoretical Framework



Literature

Several meta-analyses and randomized controlled studies have shown simulation to be an effective educational tool for developing the nursing skills and improving the cognitive recall of undergraduate nursing students.

Types of Simulation Described in the Literature

- Screen-Based / PC-Based Simulation
- Virtual Patients
- Partial Task Trainers
- Human Patient Simulators
- Standardized Patients' Scenarios
- Integrated Models

Benefits of Simulation in Nursing Education

- Improved patient safety
- Supports the transition from novice to expert nurse
- Enhances students critical thinking, and self-confidence

Methods

Design:

- Descriptive non-randomized design

Population:

- Newly licensed graduate nurses who have been employed for less than 24 months at a large, academic medical center (minimum N=42)

Instrument:

- Nursing Anxiety and Self-Confidence with Clinical Decision-Making Scale (NASC-CDM[®]) questionnaire and researcher-designed demographic survey

Data Collection:

- Online electronic survey (Google Forms) or paper copy questionnaire to be distributed by the Nurse Residency Program (NRP) course coordinator to the NLGNs participating in NRP

Statistical Analysis:

- Microsoft Excel for collected data and IBM SPSS version 25 for statistical analysis
- Descriptive analysis - demographic characteristics of the participants
- Descriptive statistics (mean, SD, 95% confidence interval) – analyze scores of the NASC-CDM[®] questionnaire including the three sub-scales
- Other statistical analysis - independent sample t-test or Mann-Whitney U-test, inferential statistical test, and correlation test

NASC-CDM[®] Scale

Nursing Anxiety and Self-Confidence with Clinical Decision-Making (White, 2014)

- 27-item, 6-point Likert-type scale with 2 main subscales (self-confidence and anxiety)
- A stable three-dimensional scale was produced from the construct validity assessment, using exploratory factor analysis.

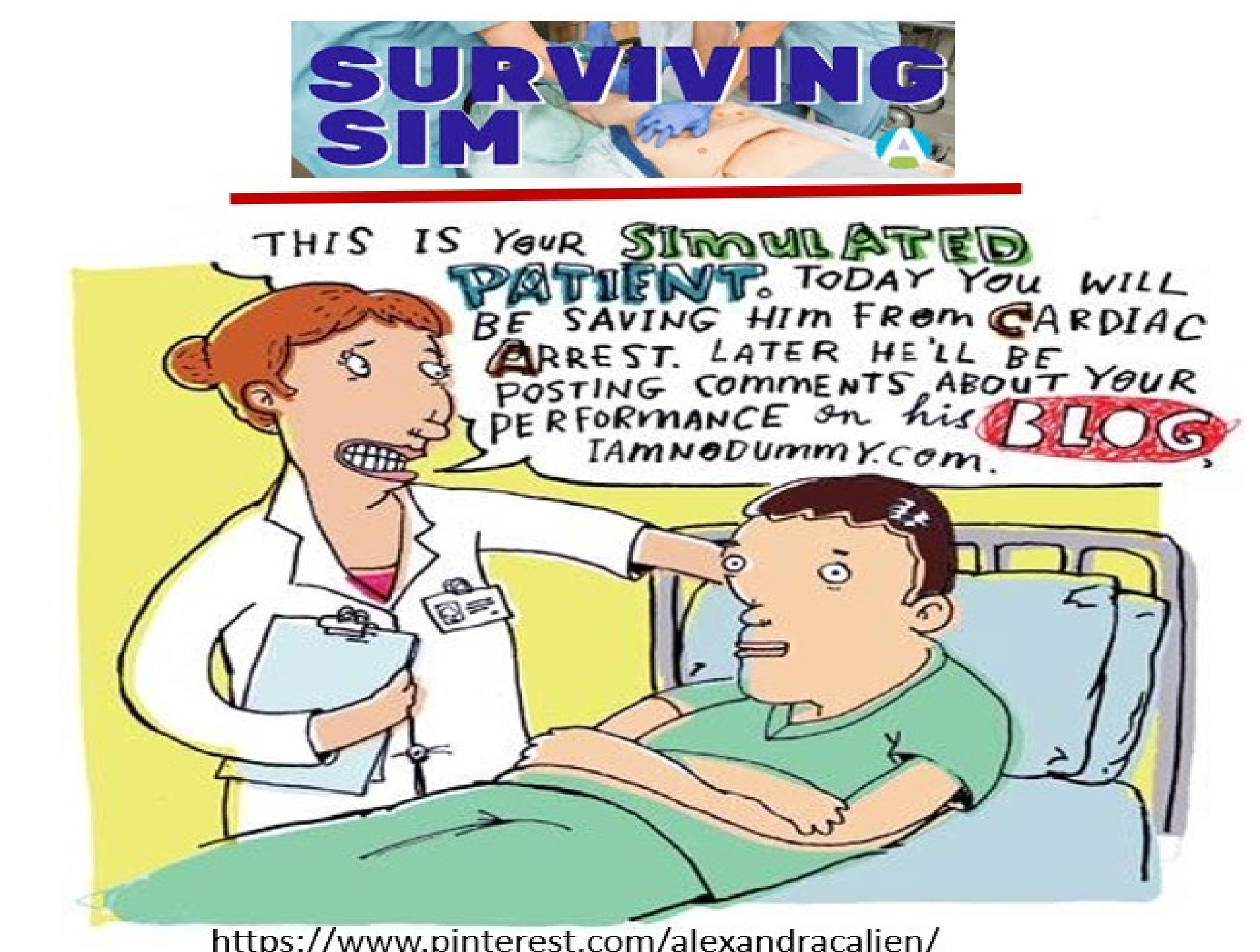
Internal consistency reliability

- Self-confidence: $a = .97$
- Anxiety: $a = .98$

Cronbach's alpha

- Self-Confidence: $a = .98$
- Anxiety: $a = .97$

Discussion



- Professional confidence is an essential trait for new graduate nurses to develop so they can provide quality patient care in today's complex healthcare setting.
- Simulation-based education can improve students' self-confidence and prepare them for clinical practice as independent licensed RNs.

Limitations

- The sample population is limited to newly licensed graduate nurses who have practiced within 1–24 months of employment in one large academic medical center in Houston, Texas.
- The specific population and sample size may limit the generalization of the future findings in this study.

Implications for Practice

This study may add to the evidence on the effectiveness of pre-graduate simulation training for enhancing the self-confidence of newly licensed graduate nurses.