Effects of Psychological Safety and Clinical Similarity on Learning Satisfaction in Nursing Simulation Practice

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Introduction

Simulation-based education has become an essential component of nursing curricula, offering students a safe environment to develop clinical competencies. Particularly in contexts where clinical placements are limited, simulation serves as a vital alternative. Among various outcome measures, student satisfaction is often used to evaluate the effectiveness of simulation learning.

One factor that may influence satisfaction is the perceived similarity between simulation and real clinical experiences. When learners perceive simulations as realistic, their engagement and learning outcomes tend to improve. However, there is limited empirical evidence on how this perceived similarity directly affects satisfaction.

In addition, factors such as the number of simulation experiences, psychological safety, and team efficacy are also known to shape students' learning experiences. These elements can influence how comfortable students feel during simulation and how effectively they collaborate with peers.

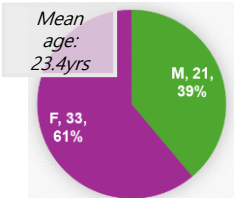
This study aims to examine whether the perceived similarity between simulation and clinical practice affects nursing students' satisfaction with simulation-based learning. It also considers related variables such as simulation frequency, psychological safety, and team efficacy to provide insight into effective simulation design.

Methods

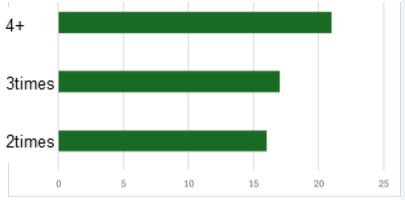
- ✓ **Design**: Descriptive survey study
- ✓ **Participants**: 54 senior nursing students after pediatric clinical practicum
- ✓ **Procedure**: Voluntary simulation (non-graded), Informed consent obtained
- ✓ **Measures**: Structured questionnaire assessing
  - ① Simulation experience
  - ② Perceived similarity to clinical practice
  - ③ Psychological safety
  - ④ Team efficacy
  - ⑤ Satisfaction
- ✓ **Analysis:** Descriptive statistics and multiple regression
  - ① Dependent variable: Simulation satisfaction
  - ② Independent variables:
    - ➢ Number of simulation experiences
    - ➢ Perceived similarity with clinical practice
    - ➢ Psychological safety
    - ➢ Team efficacy

Results

Gender Distribution



Previous simulation experience



Simulation Satisfaction: M±SD = 3.92 ±0.36(5-point Likert scale)

Consideration: Nursing students from one university participated in simulations on gastroenteritis and pneumonia after completing pediatric practicum, with most having prior experience with pneumonia cases.

Table 1. Cross-tabulation: Psychological Safety & Clinical Similarity

Variable	Clinical Similarity: Pneumonia	Clinical Similarity: Gastroenteritis
High Psychological Safety	More likely to report realism	No significant trend observed
Simulation Satisfaction (mean)	Slightly higher when pneumonia scenario was perceived as clinically realistic	No clear association for gastroenteritis

Table 2. Regression Analyses: Predictors of Satisfaction

Model	Significant Predictor(s)	Co-efficient	P	Interpretation
Linear regression	**Psychological Safety**	0.800	<.001	Higher safety → higher satisfaction
Logistic regression (DV: Pneumonia Similarity)	Satisfaction	–0.371	0.626	Not significant
Logistic regression (DV: Gastroenteritis Similarity)	Satisfaction	–0.263	0.711	Not significant

Summary of Findings

Psychological safety was the **strongest predictor** of simulation satisfaction.

Clinical similarity (pneumonia) showed a **positive but nonsignificant** trend.

Satisfaction did not predict perceived realism of the scenarios.

Conclusion

This study suggests that incorporating realistic scenarios that mirror clinical settings can enhance student satisfaction and engagement in nursing simulations, particularly when supported by a psychologically safe environment. These findings highlight the importance of clinical similarity and psychological support in nursing simulation design, which can inform future curriculum development and potentially improve learning outcomes in pediatric nursing education.