The Effects of High-Fidelity Simulators on Nursing Students' Critical Thinking and Self-Confidence
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Abstract

Nursing graduates must possess self-confidence and critical thinking abilities to solve complex patient care problems. The use of human patient simulators to augment teaching in schools of nursing is increasing; however, further research is needed to substantiate the assertion that learning via simulation improves critical thinking and self-confidence. This quantitative research study used a pretest–posttest design to investigate the effects of high-fidelity simulator use on nursing students' critical thinking skills and feelings of self-confidence. One group of students (experimental group) learned about stabilizing newborn babies using a human patient simulator while the other group (control group) did not use the simulator. A multiple-choice test was constructed to determine if nursing student critical thinking improved after participating in a simulation experience. The National League for Nursing (NLN, 2005) *Student Satisfaction and Self-Confidence in Learning Scale*, designed to examine nursing students' feelings of self-confidence after engaging in a simulation learning experience, was administered to determine if there is a difference in nursing students' self-confidence levels. Study participants included junior-level nursing students (N = 49) enrolled in a maternity and pediatric nursing course. A Wilcoxon signed rank test was conducted to analyze the results of the pre and posttests to determine if there was a significant difference in critical thinking scores between the groups. Results indicated a significant difference (p <.05). Students' feelings of self-confidence were not significantly higher when the experimental and control group survey results were compared (p >.05) using the Mann-Whitney U test to analyze data. Study findings suggested that human patient simulators do increase student critical thinking abilities but not self-confidence.

Further research is needed with a larger sample size. Conducting in-depth interviews and a longitudinal study to better understand self-confidence development and retention of knowledge over time after learning with a simulator is also recommended.