The effect of high-fidelity simulation on knowledge and self-confidence of Saudi Arabian nursing students

**Background:** Simulation is an instructional method that has an imitation or imaginary experience that reflects real-life situations, but without jeopardy. Simulation use in nursing education can be a cost containment advantage requiring less clinical placement, higher quality patient care, and learners ready for patient care with technology. The use of high-fidelity simulation (HFS) as a teaching strategy may help to bridge the gap of clinical settings and faculty shortage in Kingdom of Saudi Arabia.

**Purpose:** The purpose of this study was to evaluate a statistically significant variation of a HFS intervention and lecture versus lecture only on Saudi Arabian senior nursing students' knowledge and self-confidence. Theoretical framework: The selected framework to guide this study was the Experiential Learning Theory (ELT) by David Kolb.

**Methods:** A quasi-experimental pre/posttest quantitative design was utilized in this study to determine the effect of high-fidelity simulation and lecture on knowledge and self-confidence Saudi Arabian senior nursing student. Data was collected from a convenience sample of 120 senior nursing students enrolled in the critical care course from Princess Nourah Bint Abdulrahman University in Saudi Arabia. The data was analyzed using the Independent-samples t-test to measure the mean differences in knowledge (dependent variable) between two groups. A paired t-test test was applied to measure self-confidence. Pearson's r was used to measure the relationship between variables in two different groups.

**Results:** The results indicated that the knowledge acquisition of nursing students who have received high fidelity simulation and lecture scored higher than nursing students who received lecture only. The findings also suggest that the application of high-fidelity simulation and lecture as a teaching strategy have more effect on self-confidence rather than application of lecture only. Additionally, the results showed that there was a positive correlation between the two variables; knowledge acquisition and self-confidence, r = 0.98, n = 60, p = 0.003

**Conclusion:** Providing Saudi Arabia nursing students an opportunity to use high-fidelity simulation supplemental to clinical experiences, students can gain much needed clinical practice experiences. This will improve the quality of healthcare quality while practicing nursing skills in a safe environment.

**Biography**

Master graduated in nursing education from the University of Central Florida, an internship supervisor of undergraduate student's and as a faculty member in The College of Nursing at King Saud University. Currently, she is a PhD alumni from Barry University in nursing administration who is interested in conducting nursing researches and teaching as well to advance nursing science. She certified simulation instructor from Harvard University.

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