

The Effect of a Simulation Lab Experience on Clinical Reasoning Confidence In Doctoral Physical Therapy Students

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Background: Assessment of clinical reasoning skills is a fundamental skill to physical therapy practice. Quantifying clinical reasoning skill acquisition in entry-level physical therapy education is difficult. One indirect measure of clinical reasoning improvement is student confidence and anxiety level, during clinical decision-making. High-fidelity human simulation training has been used to enhance clinical reasoning in acute care settings in doctoral of physical therapy (DPT) education. The purpose of this study was to introduce a live simulation experience (LHS) to DPT students at California State University, Fresno.

Methods: Subjects included 31 third year DPT students that participated in a LHS experience in the beginning of the semester, or at the end of the semester. Students were randomly assigned to different lab groups. The Nursing Anxiety and Self-Confidence with Clinical Decision Making Scale ((NASC-CDM) was assessed at the beginning and end of the semester.

Results: The Mann-Whitney U compared NASC-CDM scores from Lab B (early semester simulation) and Lab A (late semester simulation). The Mann-Whitney was not significant ($Z = -0.8103$, $p = 0.42$). There were no significant differences in NASC-CDM scores between lab groups.

Discussion: Addition of a LHS experience did not result in significant NASC-CDM differences when introduced early in the semester compared to late in the semester. Mean trends support the notion that early introduction created a greater change in decreasing anxiety and increasing confidence (Pre-LHS: Lab B=32.46, Lab A = 37.90). The late introduction group (Lab A) may have been skewed by a group of students who started with higher NASC-CDM scores and therefore a significant difference was not noted because of the pre-LHS heterogeneity between groups.