Enhancing Clinical Judgment in Nursing Students through Deliberate Practice and Virtual Reality Simulation

Brandon Dominguez, DNP, RN, CHSE, Riverside City College

Topic: Leading & Advancing Improvements in Health, Health Care, & Higher Education

Category: Quality Improvement/Evidence-Based Practice Project

Abstract

Background/Introduction
This study aims to investigate the effect of deliberate practice combined with VR simulation on second-year Registered nursing students' performance in these essential areas.

Purpose
This study seeks to determine if the deliberate practice exercise with an adjunct VR simulation can enhance performance in various competencies, including NCLEX competencies when compared to a control group that only engages in VR simulation.

Methods or Processes/Procedures
Both the intervention and control groups participated in a single VR simulation session that covered core clinical competencies required for second-year nursing students. Following this, the intervention group underwent a series of deliberate practice sessions led by experienced nursing faculty.

Results
The intervention group demonstrated a higher mean clinical judgment score (M = 86.50, SD = 6.34) compared to the control group (M = 77.38, SD = 6.88). Significant differences were also observed in the NCLEX competency areas between the two groups. In Health Promotion and Maintenance, the intervention group (IG) showed a mean score increase of 24.8% compared to the control group (CG). For Physiological Integrity, the IG displayed a mean score increase of 24% compared to CG. In the Psychosocial Integrity domain, IG experienced a mean score increase of 27.6% compared to CG. Lastly, the IG demonstrated a mean score increase of 20.8% in the Safe & Effective Care domain compared to CG.

Limitations
While this sample size may be sufficient for statistical analysis, it may not be large enough to generalize the findings to all nursing students or different educational settings. The use of Oxford Medical Simulation's virtual reality platform may limit the applicability of the results to other VR systems.

Conclusions/Implications for Practice
The findings from this study strongly support the original hypothesis that the integration of deliberate practice with virtual reality (VR) simulation leads to significant improvements in clinical judgment and NCLEX competency scores among second-year Registered Nursing students.

Biography

Brandon Dominguez is a distinguished Registered Nurse specializing in mental health, with an impressive career encompassing clinical, administrative, and research nursing. Beyond his clinical expertise, he is a seasoned educator, teaching mental health nursing concepts at LVN, ADN, and BSN levels of pre-licensure nursing. A thought-leader in his field, Brandon has been invited to share his knowledge and research at numerous local, regional, state, and national conferences. His innovation in healthcare education is further evidenced by his qualifications as a Certified Healthcare Simulation Educator and a certified Apple Learning Coach.

Contact Information

Brandon Dominguez, DNP, RN, CHSE
Associate Professor
Riverside City College
brandon.dominguez@rcc.edu
(951) 318-6396