Observers Learn the Same as Participants Throughout Simulation, Debriefing, and Over Time: The Evidence

Brandon Kyle Johnson PhD, RN, CHSE
Acknowledgments

NLN Mary Anne Rizzolo Doctoral Research Award, 2018
AACN Jonas Nurse Leader Program, 2016-2018 Cohort
Increased use of simulation in prelicensure nursing education

Most learners are observing in simulation/multiple participants in a room (Hayden et al., 2014)

Simulation lacks support of theories that incorporate observational learning principles

Current research has numerous confounding variables in the exploration of observer roles
Purpose

To explore the relationship between prelicensure baccalaureate nursing students’ roles in simulation (active participant or observer) and cognitive knowledge demonstration, retention, and application (assimilation/accommodation) to a similar clinical situation using simulation with Debriefing for Meaningful Learning©.
Theoretical Framework
Observational Experiential Learning © (Johnson, 2020)
Research Questions

Is there a difference in knowledge demonstrated and knowledge retained by nursing students in active participant versus observer roles after a simulation about the care of a patient with respiratory distress (opioid-induced respiratory depression) at baseline, before and after debriefing with DML, and four weeks later? (Concrete Experience (CE))

Is there a difference in knowledge demonstrated and knowledge retained by nursing students in active participant versus observer roles when applied (assimilated/accommodated) to a parallel case about a patient with a different kind of respiratory distress (anaphylaxis) after DML and four weeks later? (Active Experimentation (AE))
Methods

Design: Experimental, pretest-multiple posttest, repeated measures study

Setting: Multi-campus health sciences university school of nursing with an accredited simulation center

Sample: 121 invited, 119 agreed
59 Participant Role/60 Observer Role

Instruments: CE Instrument and AE Instrument
Piloted over 3 semesters with psychometric testing specific to the simulation.
Procedure & Instruments
Research Question 1

Concrete Experience Results

- CE Pretest
- After Sim
- After DML
- Four Weeks

Participant (Green Line) vs. Observer (Blue Line)
Research Question 2

Active Experimentation Results (Anaphylaxis Case-DML)
Implications & Recommendations

Observer Roles and the INACSL Standards of Best Practice: Simulation SM

Knowledge decay
- Sequencing simulations should be conceptually linked
- New nurse orientation and competencies

Instrumentation—Teaching Assimilation and Accommodation

Observation and technology in teaching/learning
Limitations

One facilitator for the simulation and debriefing
Facilitator was familiar with knowledge questions on instrumentation
Instruments were extremely similar
Familiarity with investigator
Groups of 6 students


References


For a Full Report of the Study and Theoretical Framework
