Simulation in Undergraduate Nursing:
A Review of an Implementation Project

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Conflict Disclosure Information:

* **Presenters: Nicky Kerr, Liz Ubaldi, Rebecca Piccolo and Andrew Metcalfe**

* **Title of Presentation:** Simulation in Undergraduate Nursing: A Review of an Implementation Project

* **We have no financial or personal relationships to disclose**

Objectives

* Explain the use of simulation as a means to enhance learning on various levels in undergraduate nursing courses.
* Discussing the impact of simulation on student success in the clinical setting
* Identifying scenarios for use through a variety of lenses

Abstract

* This workshop is designed to explore an implementation project used in an undergraduate nursing program. Simulation was integrated in the first three years of the Nursing Program with the intention of applying learned knowledge and skills in a clinical experience furthering students competence and confidence in assessing clients across the lifespan. Simulation scenarios were specifically chosen to be revisited in upper levels with increasing complexity of the client situation as well as viewing the scenarios through different lenses to accommodate different learning objectives. An opportunity will be given to review a created scenario, explore options within that scenario to meet differing course objectives or through a variety of lenses including interprofessional education.

What does the RESEARCH say?

* Simulation is a safe and practical teaching strategy to ensure students develop skills before stepping into the real-world clinical practice environment (Billings & Halstead, 2012; Jeffries, 2007)
* NCSBN National Simulation Study concluded no overall statistically significant difference in competency with those students who have had up to 50% of their pre-licensure clinical experiences replaced with simulation (NCSBN, 2014)

Making the Pieces Fit…
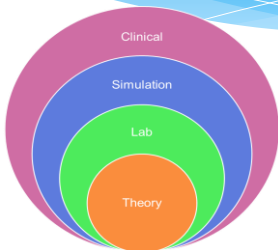
Background

* First year students with no simulation experience
* Utilized Elsevier's Simulation Learning System (SLS) software to guide the simulation experience weekly
* Provide opportunity to practice assessment techniques in a safe environment with immediate feedback
* Opportunity to identify strengths and weaknesses of students and create learning plans for those who struggled

Goals for the Simulation Experience

Implementation

* Utilized SLS software
* Pre-simulation exercises and quiz
* Hybrid simulation learning environment
* Post-simulation SBAR and SOAP charting
* De-briefing
* Plans for remediation
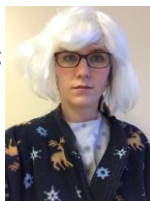
Evaluation Methods

* Formative and summative evaluation
* Individual learners and overall class

What Did the Students Think?

Before	After
"nervous"	"increased confidence"
"anxious"	"develops teamwork"
"waste of time and money"	"real tasks in a safe environment"
"intimidating"	"encourages me to put skills to use and prepare for clinical"
"confusing"	""feel a lot more comfortable in the clinical setting"
"apprehensive"	"great opportunity to learn from mistakes before being in a real clinical experience"

What did the Educators Think?

Course Professors	Clinical Instructors
Improved ability to perform subjective assessment	Students performed well in assessments
Performed more accurately with hands on skills and focused assessments	Increased organization of assessments
Improved ability to identify priority nursing diagnosis for clients	Improved ability to perform SBAR reports
Increased proficiency with verbal report (SBAR) and written documentation (SOAP)	Improved comfort in the clinical setting

As the students move into 2nd year….

* Previous experience with simulation = less nervous
* Ready to focus on learning content immediately
* Familiar with SLS software

Background

* Second year students with previous simulation experience have the opportunity to rotate through 2 Simulation days for Paediatric/OB experience.
* Utilizing Elsevier's Simulation Learning System (SLS) software to guide the simulation experience as well as created scenarios based on experiences needed.
* These scenarios provided give the students opportunity to practice assessments, medication administration, communication with anxious parents etc..
* Students are preparing for the simulations as though it was a clinical day (SLS ~ EHR ~ Data Collection ~ Prep work)

GOALS

Assessments

Critical Thinking

Communication

Peds/OB PRAXIS

Data Collection/Documentation

Implementation

* Utilized SLS software and created scenarios
* Pre-simulation exercises, Quizzes and Data Collection using the EHR chart, Prep assignments include ~ clinical prep work
* Simulators and standardized patients used
* Post-simulation SBAR and documentation
* Structured debriefing / reflections / post simulation exercises/quizzes

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Evaluation

* Preparatory tool for clinical
* Practice, Learning, and Feedback given on the spot.
* Determine areas for improvement

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Student Questionnaire

* "Through each of the simulations, I gain a sense of applicable knowledge, that I will be able to apply in a vast array of scenarios and ultimately increase my confidence level in dealing with more complex situations in clinical"
* "I hope simulations days continue throughout nursing school, as it will prepare me for the NCLEX and make me a more competent and knowledgeable nurse"

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3rd Year Students

* Relational Practice BSCN3206 Course
* Using the same scenarios as the 2nd year BScN students experienced, with different objectives.
* Evaluation ~ Written assignment based on the experience in Simulation.
* Revisiting previous skills as well as managing the complexity of the interaction.

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Group work

* Scenarios will be reviewed.
* Use your individual backgrounds/ expertise / teaching assignments to develop objectives for each scenario.
* Example ~ communication, pharmacology, assessment, interprofessional education (roles)

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Scenario

* Jane Moore, a 30 year old gravida 2, para 1 Caucasian female, is the mother of baby Nevaeh who was born 2 days ago. Jane had no prenatal care, and is addicted to cocaine. This is Jane's second child, the first child is in the care of CAS. The scenario takes place in the hospital Neonatal Unit where baby Nevaeh is being cared for and Jane comes for a visit.

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Scenario

* Kaelyn Renard is a 21-year-old gravida 2 para 0 aborta 1 Caucasian female at 40 weeks' gestation. Her membranes ruptured at noon on Saturday while at home. She was admitted to OB triage on Saturday at 1830 in early labor. The scenario takes place on Sunday at 1430, at which time Kaelyn is beginning to show signs of infection and increasing pain and anxiety. During this scenario, students will have the opportunity to assess and manage a patient in active labor and to detect signs of developing chorioamnionitis

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Scenario

* Malcolm Little is a 70-year-old Asian American male. He presents to the office accompanied by his oldest daughter, Cynthia, who is visiting from out of town. Cynthia made the arrangements for today's appointment, stating that during recent visits and phone conversations with her father, she has noticed that he has seemed confused at times. She is concerned by this change in his behavior. She has brought a bag with her father's medications and Chinese herbs along with them today. During this scenario, students will have the opportunity to collect a medication history and complete a medication reconciliation form for a patient experiencing possible polypharmacy and to document and communicate the findings

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Scenario

* Pedro Gomez, a 5-year-old Hispanic male, was admitted Friday afternoon for an open reduction and internal fixation of a left forearm compound fracture. Following an uneventful surgery, cast placement was planned for the following day. Overnight, Pedro developed early signs and symptoms of varicella that went undetected by the night nurse. The scenario takes place on Saturday at 0730. A postoperative IV antibiotic is due at the start of the scenario. During this scenario, students will have the opportunity to manage care for a postoperative pediatric patient exhibiting early signs and symptoms of varicella by communicating with the health care team, initiating isolation precautions, and administering antipyretics.

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