Findings of a Knowledge Synthesis Project of Simulation Use in Pre-Licensure Nursing Education

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Research Objectives

This study aimed to:

➢ Conduct a systematized review of the literature on the use of simulation in pre-licensure nursing education

➢ Use a realist approach to map the literature and synthesize what is known about: What simulation experience is most effective for which pre-licensure students, in what circumstance, and how?

➢ Identify directions for future research regarding when and how best to use simulation in pre-licensure nursing education (evidence-informed teaching)
Simulation in Pre-Licensure Nursing Education

- **History**
  - Anatomical models
  - Human skeletons
  - Mrs. Chase

- **Advancement**
  - CPR mannequins
  - Computer-controlled human patient simulator

- **Significance**
  - Safe learning environment
  - Opportunities for ‘deliberate practice’
  - Deconstruction of complex tasks into simpler elements
Knowledge Gap

- Most educators agree that simulation facilitates learning and patient care, but some are concerned that technology rather than andragogy is driving the use of simulation in healthcare education.

- Others are concerned about the quality and character of the evidence re: effectiveness of simulation-based learning.

- There is limited information concerning transferability of learning to patient care.
Research Project Overview

- Systematic review
- Mapping
- Realist approach - ‘what simulation experiences, are most effective for which pre-licensure nursing students, in what circumstances, and how’
- Identify directions for future research
Research Project Overview

Initial Search (N=1217)

Title and abstract review

Independent review and appraisal (N=849)

Secondary review in Progress
Preliminary Findings: Secondary Review

- 552 of the 849 (65%) articles have undergone the secondary review by two independent team members.
- 109 (20%) articles will be kept in the project for the final analysis.
- 443 (80%) articles were excluded through the secondary review process.
Preliminary Findings: Reasons for Excluding

Main Reasons for Excluding Articles from the Final Summary:

- Quality of the evidence
  - Weak methodology (both qualitative and quantitative)
  - Small sample size
- Theoretical articles (not primary research)
- Not on Topic
- Instrument Development and Validation
Preliminary Findings: Emerging Themes

The research studies that will remain in the study focus on:

- Clinical judgment/thinking
- Communication skills
- CPR/Resuscitation
- Clinical skills/performance
- Knowledge acquisition
- Medication, administration, dosage calculation
- Psychomotor skills
- Student/faculty perceptions of simulated learning
- Interprofessional communication
Possible reasons for state of knowledge re: evidence to guide decisions about when, where and how to best incorporate simulation into pre-licensure nursing education

The way forward … future research needed in this area
THANK YOU