The Baby is Coming! Exploring the value of Simulation in Maternity, Child and Family Nursing Education: A Mixed-Methods Action Research Study

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Abstract

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Background:
Simulation technology may offer a solution to one of the most pressing challenges facing health professional education; a shortage of clinical placement opportunities. Simultaneous exposure to practice and theoretical nursing education is a foundational pedagogical strategy; however, barriers to placement experiences challenge educators to implement new strategies to promote knowledge acquisition and skill development. The integration of simulation based learning into the undergraduate curriculum has the potential to address this growing crisis.

Research Questions:
This research explored the value of simulation as a pedagogical strategy in undergraduate maternity, child and family nursing education. The study evaluated the effectiveness of simulation technology, while facilitating an understanding of the lived experience of the student.
1. Does simulation result in acquisition of knowledge?
2. What is the experience of students with simulation?
3. What is the influence of simulation on student confidence?

Method:
Utilizing a concurrent mixed methods design, participants received classroom instruction, a simulation session and “home visits” with a virtual family. The comparison group received standard strategies, including traditional family visiting. Knowledge acquisition assessment occurred at the beginning and end of the course and focus groups explored the students’ lived experience.

Results:
An increase in mean test scores was noted in the simulation group. (pre-test mean: 60.3 SD 11.8; post-test mean 70.8, SD 13.2). A statistically significant difference in knowledge acquisition was identified through a paired sample t test (t = 4.8988, p value < 0.0001). Emerging themes from focus group transcripts included accessibility, comfort, safety, engagement, and anticipatory loss. Students described simulation as an ‘informative,
memorable and realistic” learning experience, but expressed concern about ‘missing out on the real thing’.

Conclusions:
This research supports the integration of simulation as an alternative to traditional pedagogical methods. Simulation improves knowledge retention and confidence. Students experience simulation as meaningful, but not as a replacement for clinical experience; however, as simulation use increases and as realism improves, students may embrace this strategy as the new “normal” method of learning. The researchers believe the findings demonstrate simulation is positioned to become an increasingly important tool in the education of future nurses in Canada.