



INNOVATION ABSTRACTS

Published by the National Institute for Staff and Organizational Development (NISOD) • College of Education • The University of Texas at Austin

GOING THE DISTANCE: DESIGNING AND DELIVERING A SIMULATED CLINICAL EXPERIENCE

Simulated nursing models historically have been used primarily for the practice and/or testing of skills. It has been a challenge for nurse educators to provide opportunities for students to develop critical-thinking and problem-solving skills in a practice lab environment. Most often these skills are developed in clinical placements. Today, however, nursing schools are dealing with increased competition for clinical placements, greater patient acuity, and technological interventions that require students to be prepared before reaching bedsides. Nursing students in smaller communities encounter fewer clinical opportunities, especially on maternal/infant and surgical units. In addition, higher-acuity cases, once stabilized, are often transferred to larger centers. To help meet the needs of nursing students in today's more complex health care environments, nurse educators are developing clinical scenarios, using a variety of technologies that include human patient simulators. Providing these opportunities for students in regional campuses presents more of a challenge.

Confederation College offers a distance Practical Nursing Program that is delivered from the city of Thunder Bay to smaller campuses in the vast region of Northwestern Ontario. While theory courses are taught by video-conferencing from the Thunder Bay campus to the region, students access lab and clinical placements in their own communities. The advantage of this delivery model allows students to live and learn in their own communities. The challenge of this model is to develop flexible, innovative, and high-quality experiences that can embrace the diverse needs of regional students.

Project and Purpose

A non-experimental pilot project was designed to examine how simulated lab scenarios—incorporating human patient simulators, a web interface, various educational technologies, and clinical equipment—could supplement the learning process for distance students

who face limited lab and clinical opportunities. A workshop was developed to provide simulated obstetrical and surgical clinical experiences to nursing students at one of Confederation College's regional campuses. The project team consisted of four faculty members with expertise in clinical practice, maternal infant care, and distance education.

It was expected that the workshop would:

- increase student knowledge of caring for a mother and baby during labour and the immediate postpartum period (normal delivery and caesarean section)
- improve student critical thinking skills related to maternal infant assessment and care
- provide opportunities for students to practice the application of clinical skills on human patient simulators in a safe, interactive lab environment and
- enhance student preparation for national registration exams.

Setting and Participants

The workshop took place at a campus 400 km from the main campus and within a 200 km radius of three regional campuses. Fifteen nursing students from the regional campuses attended voluntarily. The project team set up four rooms, including a common classroom for discussion, demonstrations and A/V presentations, two labs for scenario practice with simulators, and a computer room for students to complete online evaluations.

Students were enrolled in an online Blackboard™ site where they had access to the agenda, learning materials, and related external links that provided information, documents, videos, and resources to prepare them for the workshop.

Written consents were obtained from students for any future use of workshop data.

Design and Delivery

The workshop was designed to follow the entire maternal child experience. Students were introduced to clinical scenarios through group discussion, demonstration, and audiovisual aids. Following a brief orientation to human patient simulators, students were divided randomly into groups of three or four and progressed



through these mock clinical scenarios. Scenario cases included the antepartum mother, the labouring mother, the delivery process, the newborn, the postpartum mother, and surgical post-caesarean section mother. Faculty members acted as facilitators by guiding, prompting, and debriefing students. Feedback was obtained from students, using an online evaluation survey. This design allowed for experiential learning as students had the opportunity to apply their knowledge and test their critical thinking skills in simulated clinical experiences.

Analysis

Students found that participation in the simulated clinical scenarios enhanced their learning. Survey results regarding workshop design, educational practices, student satisfaction, and self-efficacy were positive:

“I felt that this workshop was well organized and VERY informative. Because of the area I live in, there isn’t a lot of opportunity to experience a birth or postpartum care. This workshop gave me some insight to caring for these patients.”

“Great workshop! I learned a lot that I didn’t get a chance to experience in the clinical setting of the course.”

“Realistic models and scenarios that were conducive to learning.”

“The knowledge that I have gained from this workshop can be applied to future clinical experiences. I most enjoyed practicing my nursing skills.”

“I enjoyed the interaction with other students and feel more confident in my ability to practice with real-life patients.”

The delivery of this innovative educational opportunity required a substantial commitment. The project team committed time to plan and design detailed scenarios and participate in the workshop. Collaboration with regional campuses to establish an appropriate setting and the required resources was critical. Safely transporting the human patient simulators and equipment from the main campus to the regional workshop site required extensive coordination. With enough preparation time and resources it is possible to create an innovative, rewarding, and quality learning experience for the distance nursing students.

Recommendations

The project team reviewed student evaluations, summarized the learning experience, and developed

recommendations for Confederation College’s Practical Nursing program to:

- ensure faculty have adequate preparation time to design and deliver similar workshop models
- limit the number of workshop participants (based on type of content and delivery mode)
- ensure appropriate resources and technology are in place
- incorporate the design and delivery of this project into the nursing curriculum and
- design a portable lab to transport simulators and equipment in a safe and efficient manner.

Implications and Conclusions

Incorporating multiple strategies (discussion, group work, videos, Blackboard™, simulators) in the design of the workshop encouraged students to practice and build their self-confidence in a safe, interactive environment. The use of simulated experiences enhanced student learning where placement was limited. Advanced planning and ensuring the availability of appropriate equipment and resources are necessary to this model. This pilot project lays the foundation for further research in the area of clinical simulated experiences in distance education.

Confederation College is committed to being a leader in technology-enhanced learning as part of its strategic initiatives. The innovative design and delivery of a simulated clinical experience actively engages nursing students to develop critical thinking and problem-solving skills; standardizes the way knowledge is shared and learning is assessed across the campuses; and supports the delivery of the Practical Nursing program through distance education. The results of this project are shared to encourage other health programs involved with or interested in providing learner-centered experiences to use a similar distance model.

Barb Morrison, Lynne Thibeault, and Debra Walker,
Professors, School of Health and Community Services

For further information, contact the authors at Confederation College, P.O. Box 398, 1450 Nakina Drive, Thunder Bay, Ontario, Canada P7C 4W1.
Email: walker@confederationc.on.ca