

PRINCE EDWARD ISLAND

Building Capacity – The Implementation of a Critical Care/Emergency Program

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Abstract

Like other Canadian provinces, Prince Edward Island has a shortage of experienced nurses, especially in critical and emergency care. To increase the numbers of competent nurses, a PEI-based nursing course in these areas was identified as key to building capacity.

This *Research to Action* pilot program successfully involved nurses in PEI-based emergency and critical care courses developed by the Nova Scotia Registered Nurses Professional Development Centre and funded by Human Resources and Skills Development Canada. The programs were offered on a full-time basis, lasted 14 weeks and included classroom and simulation laboratory time, along with a strong clinical component.

Sixteen RNs graduated from the courses and became Advanced Cardiovascular Life Support (ACLS) certified. An additional 12 RNs were trained as preceptors. Feedback from participants indicates greater job satisfaction and increased confidence in providing patient assessments and care. Based on the program's success, the RTA partners proposed the establishment of an ongoing, PEI-based critical care and emergency nursing program utilizing 80/20 staffing models and mentorship. Their proposal was approved, with courses set to resume in January, 2012.

Background

All jurisdictions in Canada are concerned with how they will address the looming nursing shortage. Each year, many provinces lose both new graduates and experienced nurses to other provinces or countries. In an effort to resolve this

problem, nursing seats in educational programs have been increased, but that approach alone will still not provide sufficient numbers of nurses to meet the projected demand. Furthermore, newly graduated nurses entering the workplace are unprepared for the stress and pressure of today's healthcare environments. In the first year of graduate nurses' employment, the nurse must adjust to a new organization and the environment while learning to function in the staff nurse role (Peterson 2009). Peterson (2009) cites Casey and colleagues (2004), who state that newly graduated nurses often express feelings of being overwhelmed and stressed and report difficulties with role transition. Research has found that 30% of nurses under 30 want to leave nursing, and in fact, many new nurses often leave the profession during the first five years of practice (Park and Jones 2010). At the other end of the continuum, there are a growing number of retirees. The impending loss of large numbers of nurses from the workforce has compelled governments, unions, health employers and regulatory bodies to identify measures that will encourage nurses to remain in nursing. The needs of both the new nursing graduate and of the older, more experienced nurse will have to be addressed (LeBlanc 2008).

Prince Edward Island (PEI), like other jurisdictions in Canada, is facing a shortage of experienced nurses in critical and emergency care. New graduates are being hired to meet basic nursing requirements, resulting in a shortage of qualified nurses with the prerequisite knowledge and skills to work in these areas. Without additional knowledge and skill development, newer nurses cannot perform safely in the specialties. Employers have coped with vacancies over time by using high rates of overtime. However, this practice has resulted in staff stress and burnout, as well as a significant impact on budgets. O'Brien-Pallas and colleagues (2008) have stated that the average turnover rate is close to 20% per year in Canada (and almost 27% in ICU), with an average turnover cost of \$25,000 per nurse. The key drivers of this cost are temporary replacement costs and initial decreased productivity of new hires.

In order to increase the numbers of competent nurses, a PEI-based critical care and emergency nursing course was identified as key to building capacity. The creation of such a course was anticipated to ameliorate the current situation, in which beds have been reduced because of insufficient staff. However, recruitment and retention of nurses in critical care has been particularly difficult in PEI because, before this *Research to Action* project was implemented, there were no critical care or emergency nursing programs delivered in the province. The Registered Nurses Professional Development Centre (RN-PDC) in the nearby province of Nova Scotia offers both a 13-week Critical Care Nursing Program

and a 15-week Emergency Nursing Program, but those are offered in Halifax. PEI nurses find it difficult and unacceptable to move away from home and family to participate in a three-month program. As well, PEI employers do not have the resources or capacity to release nurses to take training in Halifax for up to 15 weeks. Offering critical care and emergency nursing courses in PEI would facilitate an increase in the number of competent nurses and help to address the reduction in critical care beds because of insufficient staff.

The *Research to Action* (RTA) PEI pilot was adapted from a project in the Cape Breton District Health Authority in Nova Scotia, which was led by the Canadian Federation of Nurses Unions (CFNU). The Cape Breton project successfully involved 24 nurses in a site-based critical care course developed by the RN-PDC and funded by Human Resources and Skills Development Canada (HRSDC) through the Workplace Skills Initiative.

Objectives

This project aimed to develop a PEI-based critical care and emergency nursing program (CCENP) that would allow nurses to acquire the skills they need without having to leave the province and provide them with performance-based certification. It was expected that such a program would enhance the work experience of both new and experienced nurses and, based on measured indicators of job satisfaction within the project site, create a positive work environment.

Importantly, it was anticipated that offering these programs in PEI would assist in the standardization of emergency and critical care in the province. Other objectives were to ensure the sustainability of a PEI-based CCENP through the training of PEI-based clinical nurse educators (CNEs) and increase evidence-based research on the delivery of CCENPs in rural areas.

Overview: Design and Planning

The project lasted from March 2009 to August 2010. A full-time project coordinator was hired for 18 months; two CNEs with backgrounds in critical care and emergency nursing were hired for 10 months; and a student assistant provided part-time administrative support for several months.

The project was guided by a provincial steering committee comprising representatives from employers, the Prince Edward Island Nurses Union, the PEI Department of Health and Wellness, the University of Prince Edward Island (UPEI) and nursing associations. The committee was responsible for setting the overall direction of the project, ensuring that it was completed on time and

assisting in outreach and communication activities. The planning phase of the project lasted from March to August 2009.

The RTA project provided funding to purchase equipment to facilitate clinical training, including two ALS (advanced life support) manikins, a defibrillator/ cardioverter, an intravenous infusion pump, a variety of hospital supplies used in practising skills in a laboratory setting, three laptop computers and a projector for classroom use.

Implementation

The two CNEs were oriented to the RN-PDC's education framework as well as to the design and development of the critical care and emergency courses offered in Nova Scotia. A mentoring relationship with the RN-PDC faculty was established, and the CNEs successfully completed Canadian Nurse Association certification in their specialty.

The project coordinator and the RN-PDC worked together to modify the RN-PDC critical care and emergency nursing programs to meet the needs of PEI nurses. The programs were developed for nurses with no prior experience or exposure to these specialty areas and so after completing the course, the graduates are deemed to be advanced beginners.

The PEI programs were offered on a full-time basis, lasted 14 weeks and included classroom and simulation laboratory time, along with a strong clinical component. Learners who participated were selected based on their expression of interest and referrals from their nurse managers. An additional factor for participation was the employers' ability to relieve them from the workplace for three months.

The first sessions offered to nurses lasted from September to December 2009 and were held in Charlottetown. Nine weeks of classroom content was delivered at the University of Prince Edward Island. The UPEI School of Nursing provided office and classroom space, access to the nursing skills lab and online access to students and instructors. The clinical portion took place at three different hospitals. Seven learners participated – three in the critical care program and four in the emergency care program.

The second sessions were delivered from February to May 2010 in the Prince County Hospital in Summerside. The classroom space and clinical portion were offered there and at the Queen Elizabeth Hospital in Charlottetown. The UPEI continued to provide lab spaces for simulation skills education and Objective

Structured Clinical Examinations (OSCEs). Nine learners participated – five in the emergency care program and four in the critical care program.

Of the nurse learners, all but one had graduated from nursing within the past 10 years, and most already had experience in critical or emergency care. Prior learning assessment and recognition (PLAR) was not instituted except for nurses with current Advanced Cardiovascular Life Support (ACLS) certificates. It was decided that because this was a new program, it would be more advantageous to have everyone review the required skills. (In the fall session, two of the seven nurses in the critical care program had already been working in the ICU; all four nurses in the emergency care program worked in the emergency setting, although two were very new to the area. In the spring session, all four nurses in the critical care program had experience in the specialty, and the five nurses in the emergency program already worked in the emergency settings, although three were very new to the specialty.)

As a condition of enrolling in the program, all 16 participants were required to sign a two-year return-to-service agreement with the PEI Department of Health and Wellness, agreeing to continue working in PEI in the specialty area in which they received training after completing the program.

Faculty used a variety of instructional methodologies, including face-to-face classroom sessions, the online e-learning environment Moodle (modular object-oriented dynamic learning environment) and, during the second sessions, team-based learning. Over the course of the project, web-based technologies were implemented to determine whether the programs could be delivered in a distance education format, thereby enabling the sustainability of the programs in PEI and elsewhere.

After the first session was completed and evaluated by the project coordinator and two nurse educators, the material for course delivery was revised to make a better fit for delivery, and use of the simulation labs was expanded. As well, the CNEs visited Halifax to meet with RN-PDC faculty and learn how to implement team-based learning.

During the five-week clinical placement component of the program, all learners were assigned a preceptor. Preceptors play an important role in performance assessment, and they are vital to the sustainability of the critical care and emergency programs.

The RN-PDC delivered preceptor development workshops for registered nurses working in ICUs and ERs in Charlottetown in late fall 2009 (five nurses attended) and in early 2010 (one nurse attended). Workshop topics included socialization of the novice nurse, roles/scopes of practice, leadership in the preceptor role, generational diversity, communication with the inter-professional team and conflict management. The project coordinator worked with the other six nurses who were unable to attend the preceptor workshops and provided them with the relevant materials and support.

Health Canada prohibits applying any funds for replacement salaries for nurses participating in the program. PEI's Department of Health and Wellness was able to fund 13 nurses to attend; however, employers also recognized the program's importance and benefits. After the success of the first program, they willingly funded three extra positions from their existing budget.

Challenges

Because the hiring of the CNEs was delayed until September 2009, their orientation with RN-PDC was sporadic as courses had already started in Halifax. The CNEs had time to spend only one or two days with the RN-PDC in Halifax; they subsequently received support by telephone and e-mail.

The project proposal recommended that, as a way to screen applicants to ensure their interest and suitability for working in the specialty area, nurses who lacked experience should spend one month, in a supernumerary position, in the relevant specialty units. However, the nurse managers of the facilities felt that this was not feasible because of staffing shortages.

Because nurse managers wanted the participants finished before Christmas, the course was streamlined to last 14 weeks instead of the planned 15 weeks. Nurse participants felt there was too much material for the length of the course.

The challenges of delivering the second session in Summerside meant more travel for the CNEs who were based in Charlottetown, and individuals withdrew from the course because of the amount of travel.

Information to the preceptors who were unable to attend the workshops was provided on an individual basis, which was not the ideal way to deliver such information.

Outcomes

All 16 RNs graduated from the course and gained new competencies that they brought back to their workplaces. Students have both verbalized and demonstrated improved knowledge base and skills, resulting in enhanced patient care. All students became Advanced Cardiovascular Life Support (ACLS) certified.

The project provided training for 12 RNs to act as preceptors to the learners. Program infrastructure, including a patient simulator, teaching materials, computers and other equipment, remains in place at the University of Prince Edward Island's Faculty of Nursing.

A PEI critical care network was created to enhance and coordinate education opportunities, clinical practice standards, policy development and mobility within the province. The RN-PDC in Nova Scotia agreed to continue providing the CCENPs to PEI nurses with adjunct appointments for nurse educators. By offering one certified course to island nurses, clinical practice standards will be evidence-based and will be promoted.

Feedback from nurse participants provides evidence of increased job satisfaction. Nurses claimed that they gained confidence in their ability to perform assessments and deliver care, and that they were better able to anticipate and prevent complications. An unexpected outcome from the pilot has been the interest from nurses out of province who are considering moving to PEI to participate in the program.

The project was not able to provide evidence-based research on the delivery of emergency and critical care nursing programs in rural areas. However, the project outcomes, and the reaction of the participants and partners, suggests that the implementation of these programs in rural settings can be very successful. Indeed, the project partners, with the full support of employers, submitted a program proposal to the PEI Department of Health and Wellness to establish an ongoing PEI-based critical care and emergency nursing program utilizing 80/20 staffing models and mentorship. The proposal was approved, and education under one of the instructors trained through the project will begin in January, 2012.

Lessons Learned

- Screening applicants to ensure their interest and suitability by placing them in a supernumerary position in their desired specialty unit was not possible in this project because of staffing shortages, and this would likely be a challenge for other jurisdictions. Therefore, other screening approaches and return-

to-service contracts should be built into program design.

- Clinical placement time was an important component of the program, but nurses who had already worked full-time in the critical care or emergency areas did not need the full five weeks with a preceptor.
- Applicants who were already working in critical care and emergency units were selected by their nurse managers. The other applicants not yet working in critical care or emergency were interviewed by a nurse manager. A more appropriate approach might be to evaluate each learner's baseline knowledge and skill level. A skills assessment day may also be helpful as a component of the admission process.
- Not all learners are suited to the fast pace of a full-time program. Attention must be paid to learning style as well as to the type of learner enrolled in these programs (i.e., previous acute care experience, amount of experience as an RN, desire to work in a critical care/emergency setting, and the necessity for a supportive environment both at work and at home). In the future, prior learning assessment and recognition of previous experience should be implemented and, for nurses working in the area, time worked during the course should be credited. (An 80/20 approach would allow nurses to use their regular shifts as clinical time; nurses who would normally be preceptors could assume a mentoring role.)

Sustainability and Transferability

The UPEI School of Nursing and RN-PDC are committed to providing the critical care and emergency courses. The partnership with RN-PDC could open doors for nurses to take other courses that are available.

The positive outcomes of this project have been recognized by the employers and by the nurse managers, who support such education. However, full-time removal of nurses from the workplace is an issue, and managers would like to see a part-time program with more recognition of past experience. A part-time program may be better suited for nurses working in the critical care area, but a full-time program would be ideal for nurses new to the field and could be incorporated into the orientation.

In September 2010, the PEI Nurses Union (PEINU), the UPEI, Prince County Hospital, Western Hospital, Queen Elizabeth Hospital, Kings County Hospital, the Association of Registered Nurses of Prince Edward Island (ARNPEI) and the RN-PDC presented a proposal to the PEI Department of Health and Wellness to establish an ongoing, PEI-based critical care and emergency nursing program utilizing 80/20 staffing models and mentorship.

Included in the proposal was a three-year commitment from employers to cover the 20% replacement salary of 12 nurses per year for three years from existing facility nursing budgets. The employers also agreed to be responsible for the identification, screening and selection of program participants and facilitation of preceptor participation. The UPEI School of Nursing committed to provide dedicated classroom, laboratory and office space, as well as infrastructure and part-time administrative support. The RN-PDC agreed to partner with a PEI-based CCENP and offer ongoing preceptor training in the province. The PEINU and ARNPEI identified grants and scholarships that students can access. The proposal was approved, with training to resume in January, 2012.

References

- Casey, K., R. Fink, M. Krugman and J. Propst. 2004. "The Graduate Nurse Experience." *Journal of Nursing Administration* 34(6): 303–11.
- LeBlanc, P. 2008. *Workplace Skills Initiative: New Skills for Nurses: A Partnership Approach to Professional Development*. Retrieved November 15, 2011. <<http://www.qwqhc.ca/knowledge-exchange-practices-details.aspx?id=77>>.
- O'Brien-Pallas, L., G. Tomblin Murphy and J. Shamian. 2008. *Understanding the Costs and Outcomes of Nurses' Turnover in Canadian Hospitals*. Nursing Turnover Study FRN#66350. Toronto: Nursing Health Services Research Unit, University of Toronto.
- Park, M. and C.B. Jones. 2010. "A Retention Strategy for Newly Graduated Nurses." *Journal for Nurses in Staff Development* 26(4): 142–49.
- Peterson, J.Z. 2009. *Job Stress, Job Satisfaction and Intention to Leave among New Nurses*. Doctoral dissertation, University of Toronto, Ontario. Retrieved November 15, 2011. <https://tspace.library.utoronto.ca/bitstream/1807/17817/1/Peterson_Jessica_Z_200906_PhD_thesis.pdf>.