

Published by the *Canadian Journal of Nursing Leadership* on behalf of the
Canadian Federation of Nurses Unions (CFNU) and partner organizations

March 2012

Applied Workplace Solutions for Nurses

THE RESEARCH TO ACTION PROJECT

“It is unacceptable to fund, govern, manage, work in, or receive care in an unhealthy healthcare workplace.”

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United Nurses of Alberta
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MANITOBA

Manitoba Nurses Union
Manitoba Health
Winnipeg Regional Health Authority

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Ontario Nurses' Association
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Nova Scotia Nurses' Union
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Newfoundland and Labrador Nurses' Union
Newfoundland and Labrador Department of
Health and Community
Central Health

NUNAVUT

The Nunavut Employees Union
The Nunavut Department of Health
and Social Services
Nunavut Arctic College

* Note: the views expressed herein do not necessarily represent the views of Health Canada.

Message from the Office of Nursing Policy

Sandra MacDonald-Rencz, RN, MEd
Executive Director, Office of Nursing Policy
Health Canada

One could easily argue that nurses are the backbone of the healthcare system. We take care of our aging parents when they can no longer live at home, we are in the community vaccinating our kids in school and we make a stay in the hospital more comfortable with our knowledge, care and support 24/7. Governments know how important this critical human resource is to sustain a high-quality Canadian healthcare system. One way that we have been doing this is with investments in the workplace – to improve and strengthen the health of the healthcare work environment. Research has shown that healthy workplaces have positive impacts not only on health professionals, but also on the effectiveness of healthcare organizations and outcomes for patients. Therefore, it is logical to invest in strategies to improve the healthcare workplace.

For this reason, Health Canada provided \$4.7 million to the Canadian Federation of Nurses Unions (CFNU) over three years to support the *Research to Action: Applied Workplace Solutions for Nurses* (RTA) initiative, which chose evidence-based strategies to improve the work life of nurses and applied them to the practice environment.

The Office of Nursing Policy (ONP) is responsible for advising Health Canada on the nursing perspective on various policy issues and programs including health human resources, representing that perspective in various venues, contributing to health policy formulation and program development, and working closely with the nursing community in developing advice to the federal minister of health and the department. It is in that latter capacity that the ONP was pleased to be involved as an ex-officio member of the advisory committee for CFNU's multi-year initiative.

The most unique and largely challenging feature of this undertaking was the collaborative approach employed by CFNU. Each sub-project was a joint effort among the unions, employers and governments in each jurisdiction, led by a national partnership with the CFNU, the Canadian Nurses Association, the Canadian Healthcare Association and the Dietitians of Canada. I am confident that we will witness the positive impacts from the RTA on the relationships and cooperation among the various stakeholder groups for years to come.

The results of the RTA initiative are equally impressive: improved morale; decreased absenteeism, overtime and turnover; and improved job satisfaction and commitment to the profession. Also notable is the increased capacity of healthcare workplaces and the newly acquired skills and competencies of nurses across the country. All these factors are crucial to the overall objective of improving the retention and recruitment of nurses.

I offer my congratulations to CFNU and its partners on their efforts to optimize the contributions of nurses in improving the health of Canadians.

The Research to Action Project: Applied Workplace Solutions for Nurses

Linda Silas RN, BScN

President, Canadian Federation of Nurses Unions

Abstract

The number of new nurses entering the profession has increased, but the need to retain nurses in the profession continues to be a critical priority. The consequences of the nursing shortage are reflected in continued high levels of overtime, absenteeism and turnover.

The Canadian Federation of Nurses Unions (CFNU), in partnership with the Canadian Nurses Association, the Canadian Healthcare Association and the Dietitians of Canada, initiated the project *Research to Action: Applied Workplace Solutions for Nurses* (RTA). The RTA initiative comprised research-based pilot projects, implemented in 10 jurisdictions across the country, that aimed to improve workplaces and increase the retention and recruitment of nurses. Unions, employers, governments, universities and professional associations came together in an unprecedented show of collaboration. Lessons and knowledge were shared among the projects, which were evaluated for their viability in other jurisdictions and professions. The pilots led to increased leadership, engagement and professional development, and decreased overtime, absenteeism and turnover.

Background

Although nurses constitute one-third of the Canadian healthcare workforce, there continues to be a pervasive shortage of nursing human resources. The Canadian Nurses Association predicts a shortfall of 60,000 full-time equivalents (FTEs) by 2022 (Tomblin Murphy et al. 2009). Governments and health organizations have implemented a number of strategies to increase the supply of nurses, with varying degrees of success. Nursing research shows that working conditions and the workplace environment are significant factors in the struggle to retain nurses. Registered nurses and nurse supervisors who were publicly employed in

the Health Care and Social Assistance sector worked a total of 20,627,800 hours of overtime in 2010 – the equivalent of 11,400 full-time jobs, at a cost of \$891 million annually. That same year, an average of 19,200 publicly employed nurses were absent from work each week because of illness or disability (CFNU 2011). Research shows that nurses have one of the highest rates of absence due to illness or disability compared with other occupations (Lasota 2009).

Nurse burnout and job dissatisfaction, precursors of voluntary turnover, also increase significantly as workload increases (Aiken et al. 2002). The turnover of nurses is a major problem in Canadian hospitals. A 2008 study on the costs and outcomes of nurse turnover in Canadian hospitals found that the average nursing turnover rate is close to 20% per year, at an average cost of \$25,000 per nurse (O'Brien-Pallas et al. 2008).

The Canadian nursing shortage, its underlying causes and its potential to become dramatically worse have been documented by a wealth of studies over the past number of years. Several innovative suggestions to address these issues have surfaced in the academic literature, but little has been done to bridge the gap between research and practice. We continue to witness high levels of nurse overtime, sick time and a frustrated profession, all of which have a negative impact on patient care. Clearly, workplace culture needs to be reformed, and this reform must involve front-line nurses.

The CFNU wanted to begin this process of culture change by applying some of the innovative approaches advocated in research. In 2006, with funding from Human Resources and Skills Development Canada, the CFNU successfully implemented two pilot projects: Critical Care and Emergency Nursing Programs in Cape Breton, Nova Scotia and a mentorship program in the Regina Qu'Appelle Health Region in Saskatchewan. The success of these projects encouraged the CFNU to plan a more ambitious undertaking.

Early in 2008, the CFNU worked with its nine provincial nurses' unions, local employers and provincial/territorial governments to develop workplace projects that would promote positive healthcare workplaces. The proposals were premised on the conviction that workplace reform requires the collaboration of employers, governments, unions and other key stakeholders. These partners were required to provide concrete support, either financially or in kind. The objective was to bring research into action – to take research off the shelf and bring it to life in nursing workplaces across the country.

The project proposals were completed by mid-July 2008. They identified potential partners, the type of project and methodology (e.g., mentoring program, nurse-to-patient ratios, 80/20 model for staffing), the scope, objectives and deliverables, the proposed timeframe, an evaluation plan and a preliminary budget, including the proposed contributions from each partner. All draft proposals were reviewed and approved by the identified partners in each jurisdiction.

Overview

In October 2008, Health Canada approved a proposal by the CFNU to implement pilot projects aimed at improving nurse retention and recruitment through various workplace improvement strategies. The four core objectives of the projects were to

1. implement innovative, research-based strategies (pilot projects) and evaluate their impact on the retention and recruitment of nurses;
2. engage nurses' unions, employers, governments, educators and other health-care stakeholders in collaborative partnerships;
3. develop resources that build capacity within the workplace; and
4. share and transfer knowledge within and across jurisdictions and professions.

Collectively, the 10 pilots were known as *Research to Action: Applied Workplace Solutions for Nurses* (RTA). Each pilot focused on an aspect of nursing practice that had been identified as particularly relevant to the jurisdiction.

The pilots involved the implementation of innovative, research-based strategies to enhance the quality of patient care by addressing staffing issues, to offer support to new nursing graduates and newly hired nurses, and to provide opportunities for education and professional development. All projects were workplace based and developed in partnership with employers, unions, governments and other healthcare stakeholders in each jurisdiction. Each pilot was led by its own provincial/territorial steering committee that included the provincial/territorial department of health, the provincial nurses' union, the employer (usually a hospital or regional health authority) and, in some cases, representation from an academic institution, professional association or both. Each steering committee hired its own project coordinator and additional support staff as required.

A national steering committee with membership from the CFNU, its national partners (the Canadian Nurses Association, the Canadian Healthcare Association and the Dietitians of Canada) and two representatives from each pilot project helped oversee the implementation of the project. The Fédération interprofes-

sionnelle de la santé du Québec and Health Canada participated on the national steering committee on an ex-officio basis. A national management team (NMT), guided by the president of the CFNU, provided day-to-day management of the RTA projects. The members of the NMT offered training, guidance, advice and support to the 10 project coordinators on an ongoing basis by means of monthly conference calls, the use of common project management software to help keep track of the projects (progress reports, conference planning and so on) and four in-person meetings over the course of the projects. The two leads of the NMT and the president of the CFNU made a total of 38 site visits to the pilots. This contact enabled a first-hand understanding of each project and provided the opportunity to offer guidance and contribute to knowledge transfer.

The projects

With an eye to the four objectives mentioned above, the pilots considered ways to

- infuse workplaces with improved morale;
- create sustainable, ongoing programs supported by specific tools and resources;
- help nurses develop new skills and expertise; and
- create strategies and programs that could be transferable to different jurisdictions and health professions.

The following list offers a snapshot of the 10 pilot projects, each of which is discussed in greater detail in the papers that follow:

- *British Columbia*: An 80/20 staffing model was implemented for nurses working on a unit of an acute care facility in a smaller interior city.
- *Alberta*: The project evaluated the impact of seven nurse retention and recruitment initiatives implemented in the province in recent years.
- *Saskatchewan*: The Synergy staffing tool (Curley 2007) was applied on an acute care unit at St. Paul's Hospital in Saskatoon. The tool is designed to facilitate nurse staffing decisions based on the needs of patients (nurse-to-patient ratios).
- *Manitoba*: An enhanced orientation and mentorship program for nurses new to long-term care was implemented at three facilities in Winnipeg.
- *Ontario*: A dashboard staffing tool was implemented on eight acute care units across Hamilton Health Sciences. The dashboard is meant to encourage nurses to become more engaged in staffing decisions based on the needs of patients and available resources.
- *New Brunswick*: The project included a French-language, online orientation program for newly hired nurses as well as a mentoring program linking senior nurses with new recruits.

- *Nova Scotia*: The project made use of an 80/20 staffing model to provide mentorship workshops and to implement a mentorship program linking senior nurses with new hires. The project also enhanced a web-based program called HSPnet that will help new nursing graduates find jobs in the province.
- *Prince Edward Island*: Critical care and emergency nursing programs were introduced in the province so that nurses no longer needed to travel to Halifax to take the 13- to 15-week courses offered there.
- *Newfoundland and Labrador*: The project implemented an 80/20 staffing model for nurses in a small long-term care facility in a rural setting.
- *Nunavut*: The project provided professional development in emergency and critical care as well as mentorship opportunities to nurses working at the largest acute care facility in the territory.

Evaluation

Tomblin Murphy Consulting was contracted to conduct a national evaluation of the RTA pilot projects. The evaluation used an Outcome Mapping (OM) methodology with a mixed-methods, repeat survey (before/after) study design. In two jurisdictions, Alberta and Nunavut, project evaluations were coordinated by the RTA national management team but conducted apart from the national evaluation. The Alberta project consisted of a large-scale evaluation of retention and recruitment initiatives contained in the collective agreement; the scope and depth of that project made it expedient to conduct a separate evaluation. The Nunavut project started 11 months after the other projects, at which point the national evaluation was well underway. It was thus necessary to conduct a separate evaluation.

The projects in British Columbia, Saskatchewan and Ontario chose to conduct supplementary provincial evaluation reports to gather additional information. The national evaluation consultants worked with these jurisdictions to coordinate activities to minimize duplication.

Summary of RTA Results

The overall goal of the *Research to Action* initiative was to test innovative strategies that would improve retention and recruitment of nurses, promote high-quality work environments, develop collaborative partnerships and facilitate knowledge transfer.

1. Innovative strategies implemented to improve the retention and recruitment of nurses

The 10 projects utilized existing nursing research that was adapted to respond to local needs and conditions. The RTA initiative provided a multitude of different

training and professional development opportunities. For example, 42 nurses participated in the 80/20 professional development staffing model, 28 upgraded skills through courses in such areas as critical care training, 91 used and evaluated staffing tools, more than 140 benefited from a mentorship or preceptorship relationship and over 500 participated in workshops. In total, nurses were engaged on 1,737 occasions. Other health professionals also participated in and benefited from specific project activities.

Participating nurses and project partners reported that they were engaged by the projects and motivated by a shared vision for the nursing workplace. They recognized the importance of a healthy workplace for the retention and recruitment of nurses and the value of the collaborative model for achieving these ends.

2. New collaborative partnerships

The entire RTA initiative involved more than 60 partners at the national, provincial/territorial and local levels and demonstrated that nurses' unions, employers, governments, academics and others can successfully engage in collaborative partnerships to address specific nursing workforce issues. The structure of the projects helped partners to better understand other stakeholders. Partners came to understand that if they really wished to make changes, all stakeholders had to assume joint responsibility. In the end, project partners provided \$26.74 million in financial and in-kind support on top of the \$4.7 million in funding provided by Health Canada.

The evaluation found that project partners benefited from the collaborative relationships and indicated a desire to continue with these partnerships. The improved working relationships among different stakeholder groups form a basis of mutual trust and goodwill that will benefit future projects. Workplace culture change can be achieved only over the long term, and thus the continuation of collaborative efforts is essential.

3. Increased capacity within the workplace

Building capacity was a key component of the *Research to Action* initiative. For example, it

- supported the addition of valuable infrastructure, such as the patient simulators purchased for Nunavut and PEI (tools and equipment purchased for the projects will remain in the jurisdictions to support the continuation of the programs);

- developed workshop materials in both French and English that are now being shared across jurisdictions and provinces/territories;
- provided mentorship programs in four jurisdictions and trained more than 140 mentors and protégés;
- provided workshops and other training for more than 500 nurses;
- provided opportunities for nurses to upgrade their skills and acquire new competencies (for example, 26 nurses in Nunavut received critical care training, and 16 nurses in PEI received certification after completing emergency and critical care training programs);
- increased the capacity of jurisdictions to deliver training programs on site, such as the PEI critical care and emergency nursing courses;
- increased capacity for project management and research (individual project coordinators developed new skills that have benefited their employers);
- supported the development of policy and guidance documents, as well as materials for workshops and new tools; and
- produced significant data on retention and recruitment initiatives, via the Alberta project and the overall RTA initiative.

4. Knowledge transfer within and across jurisdictions and professions

One of the four primary goals of the RTA initiative was to facilitate knowledge transfer (KT) within and across jurisdictions and professions. KT activities included

- 15 project coordinator and steering committee member visits to RTA project sites;
- six presentations and three poster presentations at national conferences;
- presentations at the International Council of Nurses convention in South Africa (2009) and Malta (2011);
- 14 presentations at provincial/territorial conferences;
- 103 meetings/presentations to provincial/territorial organizations, groups and media;
- 24 monthly teleconferences with project coordinators;
- the production of one national and 10 provincial/territorial videos on the RTA initiative (available online);
- a project management site that acted as a portal for information sharing; and
- a website hosted on the CFNU's Think Nursing website (www.thinknursing.ca/rta) that includes unique pages for each project with overviews, documents and videos.

A Knowledge Transfer Conference held in March 2011 presented the results of the 10 initiatives to a broader audience. More than 100 participants attended, representing front-line nurses, employers, unions, academics and provincial, territorial and federal governments.

Evaluation Summary

The overall goal of the *Research to Action* initiative was to test innovative strategies that would improve retention and recruitment of nurses, promote high-quality work environments, develop collaborative partnerships and facilitate knowledge transfer.

The results far exceeded initial expectations:

- Nurses were engaged on at least 1,737 occasions.
- Over 500 nurses participated in orientation and mentorship workshops, and more than 140 nurses were involved in mentorship relationships.
- Job satisfaction improved and nurses reported greater empowerment and occupational commitment.
- The number of nurses reporting a high level of leadership and support rose 147%.
- There was a 10% decrease in turnover, overtime and absenteeism from baseline to follow-up.
- There was a 66.7% increase in time dedicated to professional development.
- More than 60 stakeholders, including employers, governments and unions, developed new working relationships at the national, provincial and local levels.
- There were more than 140 unique events to promote knowledge transfer within and across jurisdictions and professions.
- Nursing capacity in workplaces and regions increased, with new infrastructure, resources, tools and skills.

Lessons Learned

1. Focus on the workplace

In order to improve retention and recruitment of nurses, the workplace culture has to change. Real change has to come from the bottom up. *The Research to Action* initiative focused on the front-line nurses who can make this happen. Involving staff nurses in research, policy and the overall project oversight has in no small way contributed to the success of the RTA initiative.

2. Ongoing commitment to professional development and skill acquisition is an essential component in improving retention and recruitment

The RTA initiative offered nurses an opportunity to acquire new skills and competencies and to share what they learned with their colleagues. This commitment to professional development has led to improved morale and renewed professional commitment. Nurses know that resources are scarce, but it is essential that they see there is a commitment to support this high-priority area.

3. Sharing of knowledge

The RTA initiative demonstrated the importance of sharing knowledge and lessons from the individual projects with a broad audience. There are several examples of programs developed in one jurisdiction and then modified and adapted for use in another region. By involving members of the academic community in several projects, the RTA initiative also helped to increase communication and understanding between educators and health professionals.

4. Partnerships are critical to success and sustainability

The RTA initiative has demonstrated that fixing the workplace is a joint responsibility. Partners need to contribute resources to implementing solutions. The collaborative approach involving all key stakeholders can be time-consuming. However, engagement of all partners means there will be ongoing support and a willingness to find solutions when challenges arise.

5. Planning and transparency are important

If real change is to occur, there has to be time to plan realistically and to include all the relevant individuals, including front-line staff. Project costs must be realistically estimated to avoid surprises.

6. Provide necessary support and resources

The RTA initiative provided a local project coordinator for each of the 10 projects. These individuals were hired by the local steering committees and were based in the project workplace. They provided support to participants, were able to troubleshoot when difficulties arose and ensured that the pilot project was successfully completed. These project coordinators were, in turn, supported by the national management team and were given opportunities to communicate and share experiences among themselves. This system of support proved to be very effective at both the local and national levels.

7. Flexibility

The ability to respond to a changing environment and to make appropriate adjustments is critical to the success of any project. Timetables needed to be adjusted and resources reallocated to respond to unanticipated demands.

8. Sustainability

For participants, the value of the project was reinforced by the knowledge that there was a commitment to see individual projects continue beyond the life of the RTA initiative.

The RTA Legacy

In 2009, the CNA argued that reversing the nursing shortage required the implementation of several “tested solutions,” including increasing nurse productivity, improving retention, reducing the attrition of new nurses and reducing absenteeism (Tomblin Murphy et al. 2009). The RTA projects have begun to put these solutions to work, with the hope of contributing to a robust nursing workforce that meets the needs of Canadians. The RTA initiative was designed to involve staff nurses in the research, policy and oversight of these projects. Their insights helped the projects reflect the realities of the workplace and propose appropriate responses.

The *Research to Action* initiative concluded in March 2011, but the innovative workplace strategies implemented through the individual projects have continued, although in some cases they have been modified:

- Newfoundland and Labrador has modified the 80/20 model to a possible 85/15 or 90/10 model of professional development, and plans to implement the model in other facilities in the health region.
- A partnership between employers and the Faculty of Nursing at the University of Prince Edward Island developed a proposal to establish an ongoing PEI-based critical care and emergency nursing program utilizing 80/20 staffing models and mentorship. The program was approved to begin in January 2012.
- Nova Scotia now has a province-wide electronic employment placement system for its graduating nurses. The project also enabled the development of new tools and resources to support mentorship workshops.
- Mentorship guides and an electronic orientation program are now available in French. The mentorship program is being expanded to all four zones of the Vitalité Health Network in New Brunswick.
- Staffing tools developed in Ontario and Saskatchewan continue to be refined and used within their respective health regions. Another facility in Saskatchewan will begin using the staffing tool on a unit in 2012.
- The Manitoba government has provided funding to implement the enhanced orientation to long-term care program across the province.

- The Prince Edward Island Department of Health and Wellness is now using the Manitoba orientation program in all of the province's public and private long-term care facilities.
- Several protocols developed through the 80/20 project in Kamloops, British Columbia have been adopted throughout the Interior Health Region.
- Critical care training for nurses at Qikiqtani General Hospital (QGH) in Iqaluit, Nunavut enhanced the leadership and training skills for front-line nurses. Critical care policies and procedures similar to those of the Ottawa Hospital (which receives patients from QGH) have been developed and adopted. These enhancements will result in improved patient care for northern patients at both hospitals.
- The mentorship program developed in Iqaluit will serve as the model for future work in Nunavut.
- The results of the Alberta evaluation have been used to inform decision-making in ongoing collective bargaining retention and recruitment initiatives.
- The RTA evaluations have contributed to the national body of evidence-based research on retention and recruitment approaches.
- National partners continue to work together on nursing issues.

Conclusion

A positive work environment is crucial to the retention and recruitment of nurses. It takes more than 24 months to change a workplace culture. Nevertheless, the evaluations have shown that the *Research to Action* initiative has made a difference. Nurses who participated in the 10 projects feel they can bring about change in their workplaces. They have greater confidence, an increased commitment to their profession and a renewed sense of purpose.

The RTA initiative offered nurses an opportunity to acquire new skills and new competencies and to share what they learned with their colleagues. This visible commitment to professional development has led to improved morale. It has helped to renew professional commitment and has kept nurses from leaving the profession.

The RTA initiative demonstrated that change in the workplace is possible if the resolve, resources and partnerships needed to improve circumstances are in place. However, change on a larger scale is needed, and more areas of nursing need attention, including rural and remote nursing, community nursing and mental health. With buy-in from key stakeholders, and the will to effect change, we can improve nursing at the systemic level for the benefit of employers, nurses and patients.

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Research to Action: An Evaluation

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Abstract

The evaluation of the Research to Action project was conducted using an Outcome Mapping (OM) methodology (Earl et al. 2001) with a mixed-methods, repeat survey (before/after) study design. This design uses concurrent measurement of process and outcome indicators at baseline and follow-up.

The RTA project proved effective at improving work environments and thereby promoting the retention and recruitment of nurses. Nurses involved in the RTA initiatives had a higher perception of leadership and support in their units, improved job satisfaction, increased empowerment and occupational commitment, and a greater intention to stay on the job.

The pilot projects were most successful when there were clearly stated objectives, buy-in from nurses, support from the steering committee and management, and adequate communication among stakeholders. Committed coordination and leadership, both locally and nationally, were central to success.

Considerable evidence has documented the challenges facing Canada's nursing human resources and their workplaces, such as high levels of turnover, excessive use of overtime and persistent shortages. There is a growing imperative to translate this research into action, and much of the available evidence presents viable policy alternatives for consideration. For example, a recent national synthesis report (Maddalena and Crupi 2008) recommended that, in consultation with stakeholders, processes should be put in place to share knowledge and best practices in nursing management, practice, staffing models and innovations in workplace health and well-being.

Nurses across the country report a desire to be more involved in decisions affecting them and their patients (Wortsman and Janowitz 2006). A recent study on the shortage of registered nurses in Canada (Tomblin Murphy et al. 2009) highlighted the need for collaboration among governments, employers, unions and other stakeholders to improve working conditions for nurses. Another report notes the potential benefits of reduced turnover among nurses, the cost of which has been identified as a major burden on the Canadian healthcare system (O'Brien-Pallas et al. 2010). One of the goals of the pan-Canadian framework for health human resources (HHR) planning adopted by the Federal/Provincial/Territorial Advisory Committee on Health Delivery and Human Resources is to enhance all jurisdictions' capacity to build and maintain a sustainable workforce in healthy, safe work environments (ACHDHR 2005).

Within this context, Health Canada's Office of Nursing Policy provided funding to the Canadian Federation of Nurses Unions (CFNU) and partner agencies in October 2008 to develop pilot projects across the country aimed at improving nurse retention and recruitment through various workplace improvement schemes. Each of the provincial partners contributed funds, in-kind support or both to the projects. The initiative was entitled *Research to Action: Applied*

Workplace Solutions for Nurses (RTA). A national steering committee including representation from unions, governments and employers, each pilot project, CFNU and its national partners – the Canadian Nurses Association, the Canadian Healthcare Association and the Dietitians of Canada – was formed to oversee the development of 10 pilot projects. There was one project in each of Newfoundland and Labrador, Nova Scotia, New Brunswick, Prince Edward Island, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia and Nunavut. The pilot projects, led by their own steering committees, focused on various aspects of nursing practice identified as particularly relevant to each jurisdiction, with a specific emphasis on improving the work life of nurses and transforming research knowledge into practice. The goals of the RTA initiative were to promote high-quality workplace environments, improve the retention and recruitment of nurses (RNs and LPNs), enhance the quality of patient care and engage stakeholders in collaborative partnerships. The first project began in May 2009 and the last project was completed in March 2011.

Objectives

Specific objectives of this evaluation were to examine the effectiveness of various strategies to achieve these goals in the provincial pilot projects and understand the factors associated with the goals. The major evaluation question was, “How effective was the national project and each of the pilot projects?” Other specific objectives of the national evaluation were to understand the factors associated with the sustainability of the strategies and the transfer of knowledge from the pilot projects to regions across Canada and to professions beyond nursing. The evaluation also examined the effectiveness of partnerships and collaboration among unions, employers and governments at the national, provincial and local levels, and the factors associated with the sustainability of these partnerships. Because of their particularly unique context and make-up, the projects conducted in Alberta and Nunavut were evaluated separately. This study is specific to the remaining eight provinces.¹

Methods

The evaluation was conducted using an Outcome Mapping (OM) methodology (Earl et al. 2001) with a mixed-methods, repeat survey (before/after) study design. This design involved concurrent measurement of process and outcome indicators at baseline (as early as possible in 2009) and follow-up (in 2010) at the pilot sites. The timing of the respective activities was different for each of the projects, based on the implementation date and other factors affecting project start dates. The evaluation timing was varied accordingly for each project.

Informed by input from the steering committees of each pilot project, the RTA national and provincial project leads, the national evaluation subcommittee and the national steering committee, the evaluation team developed a set of evaluation instruments to measure, for each project, a set of process and outcome indicators. These are variables that measure, respectively, the degree to which the activities for each pilot project have been implemented and the effects of that implementation. The instruments were designed to capture the perspectives of relevant sources – the nurses (RNs and, for some projects, LPNs) and managers participating in each pilot project, as well as the individual project coordinators and their respective steering committees – on each of the indicators. Five instruments were developed:

- a Strategies Journal for the project coordinators;
- a web-based Nurses' Outcomes Journal (NOJ) for the nurses participating in the project;
- an electronic Employers' Outcomes Journal (EOJ) to capture administrative data;
- a Performance Journal for capturing information from focus groups conducted separately for nurses and the project steering committees; and
- a web-based survey for members of the national steering committee to capture their levels of engagement and assessments of the project's outcomes.

Where appropriate, the instruments were developed using established measurement tools. Questions on the NOJ pertaining to perceived leadership were adapted from Shortell and colleagues (1991). Occupational commitment was measured using the same statements and scale used by Meyer and colleagues (1993). Psychological empowerment was measured using all the statements included in the instrument developed and psychometrically assessed by Spreitzer (1995). Categories used to measure levels of collaboration among stakeholders were adapted from those used by Hogue (1993).

Each instrument was reviewed by the respective pilot project steering committees as well as the national steering committee in a content validation process. Once finalized, the instruments were submitted to research ethics boards for approval. Acceptable response rates to the questionnaires were obtained, and the focus groups were well attended. During the first set of data collection, the subscales used in the Nurses' Outcomes Journal were examined for construct validity and internal consistency using Cronbach's alpha (Bland and Altman 1997).

Results

Project implementation

Implementation of the projects' activities generally met or exceeded expectations. The goal of introducing an 80/20 staffing model (Bournes and Ferguson-Paré 2007) to a smaller rural setting in British Columbia was clearly achieved. The observations in Saskatchewan indicate that the activities related to developing, validating and employing a patient scoring tool (Curley 2007) to adjust staffing ratios had indeed been carried out. It is clear from the uptake of the mentoring program and attendance at the clinical workshops in Manitoba that project implementation there met or exceeded expectations. On the whole, the Ontario project achieved its implementation goals but was challenged in doing so because of a wide array of both internal and external factors. By closing date for the national evaluation, New Brunswick had launched over 90% of its web-based orientation modules and had exceeded its expectations in mentorship training. The Nova Scotia project experienced some delays with regard to the initial project planning, and by the end of the national evaluation period (December 2010) two of the three main activities (HSPnet and enhanced orientation) had not been implemented to the point of engaging new graduates as planned.² The implementation of emergency and critical care training programs in PEI clearly met expectations. And finally, in Newfoundland and Labrador the project activities unfolded as expected, with no significant issues in implementation.

Although most projects were implemented more or less as planned, each project faced a variety of challenges as it developed, such as staffing shortages, the H1N1 pandemic and other external complications.

Project effectiveness

If the national CFNU project was effective, one would expect to see a shift in outcomes from baseline to follow-up – up for some (such as job satisfaction and occupational commitment) and down for others (such as turnover and absenteeism). To ascertain whether or not such a pattern existed for the nurse outcomes (the administrative data will be presented next), the mean outcomes at baseline and follow-up were compared independently. Because the outcomes were continuous variables with skewed distributions, they were dichotomized at the median and logistic regression was used to determine the odds of nurses' reporting a high outcome (i.e., above the median) at follow-up compared to baseline.

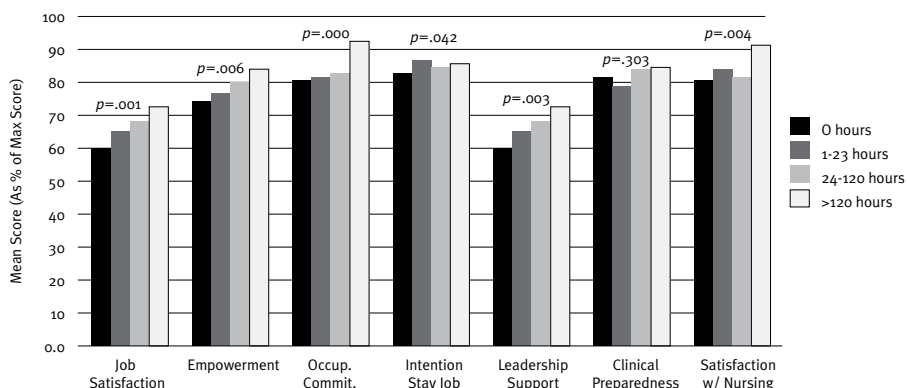
The odds of nurses' reporting a higher-than-median outcome were greater at follow-up than baseline for all measures – perceived leadership and support, job satisfaction, empowerment, occupational commitment, satisfaction with nursing,

intention to stay in the job and self-assessed clinical preparedness. One can rule out chance as an explanatory factor in two of these outcomes: the odds of nurses' reporting a high level of leadership and support in their units were 147% greater at follow-up than at baseline ($p=.005$), and the odds of reporting high job satisfaction were 97% greater ($p=.032$). The odds of reporting high empowerment, occupational commitment and intention to stay in their job were also greater at follow-up (38%, 37% and 28%, respectively). While chance cannot be ruled out for these latter three observations, the fact that all variables showed greater odds of high scores at follow-up relative to baseline suggests that chance is an unlikely explanation. Such a view is strengthened by further analysis of the same variables.

To determine whether these changes can be attributed to the RTA initiative, the association between nurse-level outcomes and nurses' time spent participating in the RTA projects (separated into quartiles) were measured. Figure 1 presents the mean nurse outcomes at follow-up by total hours of involvement in CFNU initiatives (controls were included in the zero hours of involvement group). The more time nurses put into the CFNU initiatives, the higher their mean outcome scores. Those nurses who put in the greatest number of hours had a 29% more positive perception of the leadership and support in their units than did those nurses who put no time into the CFNU initiatives, and this association was highly statistically significant ($p=.003$).

Figure 1.

Mean nurse outcomes at follow-up by total hours involved

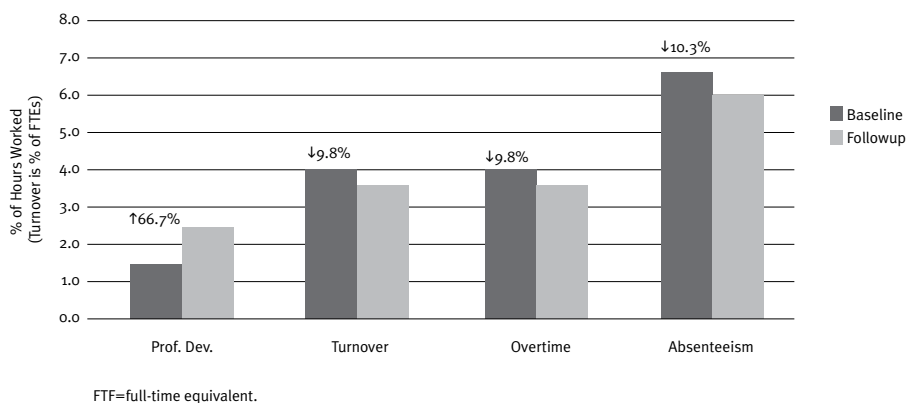


The corresponding effect size for job satisfaction was 22% ($p=.001$); for empowerment, 12% ($p=.006$); for occupational commitment, 15% ($p=.000$); for satisfaction with nursing, 14% ($p=.004$); and for intention to stay in their job, 4% ($p=.042$). It is important to note that this analysis used general linear models incorporating the nurses' province, age and level of education as covariates, meaning that the effects shown above are not due to differences in these variables between nurses.

Figure 2 depicts the rates for professional development, turnover, overtime and absenteeism at baseline and follow-up. The data from all participating units (excluding control units) across the country at baseline and follow-up were both aggregated in order to yield the most stable baseline rates. Professional development (PD), a key element of many of the CFNU initiatives, went up 66.7% from baseline to follow-up from about 1.5 hours of PD per 100 worked hours to about 2.5. Concomitantly, turnover, overtime and absenteeism went down about 10%. Note that these administrative data were drawn from all units that participated, and there is no intent to generalize to other units. Thus, they are not a sample of units; there is no sampling error to rule out, and therefore no statistical testing was required.

Figure 2.

Aggregate administrative outcomes at baseline and follow-up



To determine whether or not these changes in the administrative data are attributable to the RTA projects, the participating units were separated into two groups according to the proportion of all their nurses that were involved in the RTA initiative; units were classified either as having a lower- or higher-than-median proportion of nurses participating. Though not shown graphically, the two groups were then compared in terms of their levels of professional development, turnover, overtime and absenteeism at baseline and follow-up.

In those units with a lower proportion of their nurses being involved in the RTA initiative, the proportion of total hours worked taken as professional development went down 0.6 of a percentage point from baseline to follow-up. In those units with a higher participation proportion, professional development went up 2.0%. In the lower participating units, turnover went up about 1.0%, while in the higher participating units it went down about 3.5%. While overtime barely changed in the low participation units, it went down 1.5% in the higher participation units. Absenteeism did not follow this pattern of more positive changes in the higher participation units; the opposite was apparent.³ In summary, improvements in most of these administrative outcomes are associated with a higher level of participation in the RTA initiative.

The quantitative findings are consistent with the findings of the focus groups, where it was reported that at the level of the staff nurse, the impact of the pilot projects exceeded initial expectations. In general, nurses were pleased (some said they felt “privileged”) to participate in the projects. Nurses expressed many opinions that support the view that the projects enhanced the nursing experience, including, for example, increased autonomy in decision-making, enhanced collegial relationships with nurses and other health professionals, enhanced “incidental learning” from colleagues, increased confidence, a renewal of their interest in and commitment to nursing as a profession and enhanced understanding of issues faced by nurses, management and policy makers, among others. Barriers to successful implementation were reported as being exacerbated by other confounding factors, such as short staffing on the unit, perceptions of excessive paperwork and heavy workloads.

Collaboration

Members of the national steering committee were asked, through an online survey, to assess the level of collaboration with various groups during the project as being one of five categories, ranging from relatively low to relatively high levels of collaboration. The level of collaboration with employers, the provincial leads and the project coordinators were each assessed as being very high. Although not

assessed as highly, the level of union and government collaboration was rated at least “cooperative” by the vast majority of respondents. The assessments of the level of collaboration with educational partners were quite diverse, an outcome that is to be expected given the variation in levels of involvement of educational partners across different projects.

Respondents to the national steering committee survey were also asked to rate their satisfaction with the overall level of collaboration among national partners on a scale from 1 (meaning very dissatisfied) to 7 (very satisfied). More than two-thirds of respondents rated their satisfaction as 6 or 7 out of 7, and the average level of reported satisfaction was 5.75 out of 7, or 82%. Along these same lines, 83% of respondents reported that partnerships between key stakeholders had been strengthened as a result of the RTA initiative, and 83% reported they had gained new insights into the different perspectives of project partners. These findings are consistent with those from focus groups with the provincial steering committees, where it was repeatedly reported that the project had improved the level of collaboration among key stakeholders by bringing them together to work towards a common goal.

Sustainability

Sustainability of the pilot projects was an ongoing topic of discussion at provincial steering committee meetings, in particular nearing the end-of-project implementation as reported within the provincial strategy journals. Some pilot projects reported some success in sustaining at least some components of their projects. For example, the PEI program is continuing, and the mentorship program in Nova Scotia will be sustained long term. In those provinces where the probability for sustainability was reported as being relatively low, some efforts have been directed at sustaining components of the projects in one way or another. For example, in Newfoundland and Labrador there has been some discussion of the possibility of offering a modified version of the 80/20 staffing model – that is, implementing an 85/15 or a 90/10 model.

Participants in nurse focus groups and the provincial steering committees identified a number of factors that were required to ensure the success of new models or strategies. These included, in no particular order, collaborative design and agreement on common objectives, joint ownership in the process and outcomes of the proposed initiative, adequate funding, government and organizational buy-in, and adequate input from staff nurses and unions. Participants strongly suggested that the projects’ successes are sustainable if the necessary supports are present, specifically, financial and organizational

support. In addition, members of the project steering committees cited the commitment and desire of front-line nurses to engage in innovation, ongoing learning and quality improvement as central to the success of the projects.

These comments are consistent with responses to the survey of national steering committee members, who identified the availability of funding or other resources, buy-in from and partnership with relevant stakeholders, and evidence of the projects' effectiveness as the three most important determinants of their sustainability. When asked whether the RTA initiative was sustainable without Health Canada funding, 26% indicated that it was, 30% indicated it was not and 44% were undecided.

Transfer of knowledge

On scales of 1 (not at all transferable) to 7 (very transferable), respondents to the national steering committee survey were asked to assess the transferability of the RTA projects to other similar healthcare facilities and other healthcare professions. The average ratings were 6.2 and 5.6, respectively, suggesting that the RTA initiative is very transferable. The three most important determinants of the transferability of projects were identified as the availability of funding or other resources, evidence of the projects' effectiveness and on-site leadership.

Participant nurses and the provincial steering committees identified several other factors as essential to the transferability of the projects. These included a persistence or willingness to proceed and overcome challenges, strong leadership in the form of a project coordinator and oversight by a steering committee, and the need to establish effective lines of communication and processes to resolve problems as they arise.

The importance of sharing knowledge across the pilot projects was repeatedly cited by members of the national steering committee. They reported that "[we] believe the sharing of information between the RTA pilot projects was very useful for project implementation because it allowed us to share information and obtain valuable feedback from other members. Sharing information gave greater insight to the projects and allowed us a chance [to] express thoughts and ask questions." Sharing of information between projects "was absolutely huge."

Most respondents to the national survey reported discussing the RTA initiative with colleagues not involved in it at least once per month; most also reported that they had discussed the project with colleagues outside nursing.

There was some evidence that additional communication and knowledge exchange about the RTA projects was necessary, including with nurses who were not directly involved with the initiatives but who may have been indirectly affected by them. For example, some nurses involved in Nova Scotia's 80/20 project reported being resented and looked down upon by other nurses who felt the participating nurses were receiving special treatment or "slacking off." Other nurses involved in Nova Scotia's 80/20 project reported substantial differences in how the project was implemented in different districts: very satisfactorily in some, not at all satisfactorily in others. Improved communication was also credited with overcoming challenges that some projects had with uptake and recruiting participants in the early stages; for example, in British Columbia and Prince Edward Island, it was reported that once non-participating nurses learned about the benefits of the projects, they became interested in participating themselves. The importance of knowledge exchange was further highlighted by the desire of some respondents for even more of it.

Lessons Learned

- *Keep the scope of initiatives such as RTA manageable.* The success of a project will be contingent on the development of a realistic proposal with a manageable scope, and adherence to that scope is important for its implementation. Underestimation of the time requirements and resource needs – both human and non-human – of a project due to deviation from the initial plan led to delays and limitations in the implementation of several provincial projects.
- *Build contingency plans into the project* in order to manage unforeseen external factors that can have an impact on project implementation. For projects that include front-line staff, success is contingent on their engagement; therefore, opportunities to ensure their full participation must be made available. Thus, when planning for such projects, it is important to consider contextual factors such as bed closures and organizational restructuring, which may affect nurses' ability to participate.
- *Consider integrating capacity to sustain change into project plans.* For example, a longer project timeline with a larger number of participants would have provided an opportunity for quantitative evaluation data at the provincial level that would assist in sustainability. Further, new projects should align with existing provincial priorities and initiatives – or at least consider these in their planning – to ensure optimal uptake and sustainability.

Conclusion

On the basis of the consistency of quantitative and qualitative findings, it is concluded that the RTA initiative as a whole has been successful.

More specifically, it was effective at improving work environments in support of the retention and recruitment of nurses, and it has significantly strengthened the level of collaboration between key stakeholders at the national, provincial and local levels. Further, the RTA projects are viewed as being sustainable and transferable with the appropriate resources and buy-in from key stakeholders needed to maintain them.

Overall, the RTA projects were successful when there were clearly stated project objectives, sufficient buy-in from nurses, support from the steering committee and management – aligned with common priorities – as well as adequate communication among stakeholders. If one of these factors was weak, then project implementation was affected. Committed coordination and leadership – locally and nationally – have been essential to the initiative's success.

The RTA initiative has allowed a number of potential means of improving working conditions for nurses to be identified and tested, thereby contributing substantially to the available evidence base in this field. Critical determinants of the sustainability and transferability of such interventions have been established. Significant challenges to implementing these various initiatives have been identified and largely overcome by those involved in the project through committed leadership, mutual respect and collaboration among key stakeholders based on shared goals and dedicated coordination.

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Notes

1. The evaluation of the Alberta RTA project was conducted by Intergage Consulting Group (formerly JLS Management Consulting). The evaluation of the Nunavut RTA project was conducted by Karen Fingas Consulting.
2. For this reason, the quantitative analyses of the national evaluation focused on involvement in the 80/20 mentorship program in Nova Scotia.
3. It does not seem plausible that participation in the CFNU initiatives would increase absenteeism. It is more plausible that turnover, overtime and absenteeism would co-vary such that a decrease in turnover and overtime use would reduce absenteeism, or that a decrease in turnover together with a decrease in absenteeism would reduce overtime use. It is also noteworthy that the changes in absenteeism are the smallest – less than 1% in both participation groups – and therefore more likely to be due to chance (caused by random occurrence of rare events). In other words, this observation may be an artefact.

RESEARCH TO ACTION

80/20 Projects

Introduction

Nurses work a disproportionate amount of paid and unpaid overtime, are threatened by assault and injury, are overworked and have high rates of illness and injury (see, for example, Lasota 2009; Shields and Wilkins 2006; O'Brien-Pallas et al. 2004; Aiken et al. 2002). These factors hamper retention and recruitment efforts, adding to Canada's growing nursing shortage, which could reach as high as 60,000 full-time equivalents by 2022 (Tomblin Murphy et al. 2009). The lack of available nurses and the poor working conditions are mutually reinforcing. What is more, these conditions impede nurses from providing patient-centred care (Curtin 2003; Aiken et al. 2002; Baumann et al. 2001).

In an effort to address nursing work life issues and reverse this cycle, the University Health Network in Toronto implemented an 80/20 professional development model on an orthopaedic surgery and rheumatology unit (Bournes and Ferguson-Paré 2007). The model allowed nurses to spend 80% of salaried time in direct patient care and 20% of salaried time on professional development. Project nurses participated in a variety of professional development opportunities, including structured group learning on patient-centred care, as well as courses and projects developed from individualized learning plans. Findings from this study show a significant decrease in overtime, an increase in workload hours per patient-day, increased patient satisfaction and a significant increase in staff satisfaction.

Professional development in the University Health Network project was guided by "human becoming" theory, which asks nurses to focus practice on what patients believe is important for their own quality of life (Parse 1998). However, given the established link between work life satisfaction and professional development opportunities in general (Ingersoll et al. 2002; Lowe 2002; O'Brien-Pallas et al. 2001), there is good reason to believe the 80/20 model would be effective with other forms of professional development.

The 80/20 model proved effective on an acute care unit in a large urban hospital, but its effectiveness in other settings had not been evaluated. The model was also successfully implemented in Regina Qu'Appelle Health Region's Regina General Hospital, the largest acute care hospital in Saskatchewan. The 80/20

model has generated considerable interest in smaller jurisdictions, where hospital administrators wondered whether it might be applied within their facilities.

Three of the *Research to Action* (RTA) pilot projects involved implementation of an 80/20 professional development staffing model with the goal of improving work life satisfaction and thus improving nurse retention and recruitment.

- The BC project implemented the 80/20 model on a paediatric unit at Royal Inland Hospital, the primary acute care facility in Kamloops, BC, a city of approximately 85,000 residents;
- The Newfoundland and Labrador project implemented the 80/20 model on a 64-bed long-term care facility in Grand Falls–Windsor, a town of about 15,000 in the Newfoundland interior;
- The Nova Scotia project implemented the 80/20 model provincewide as per the province's most recent collective bargaining agreement.

Each of these projects had its challenges. The next three papers describe the approach, outcomes and legacy in each of these three very different settings.

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BRITISH COLUMBIA

Improving Retention and Recruitment in Smaller Communities

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Abstract

This pilot project involved the application, in Canada, of the innovative 80/20 staffing model to a hospital in a small rural setting. The model provides the voluntary participants with 20% of their salaried time off from direct patient care in order to pursue various types of professional development activities. The project, overseen by a steering committee, lasted from June 2009 to February 2010 and involved 14 nurses on the pediatric unit of Royal Inland Hospital in Kamloops, British Columbia. It entailed a collaborative partnership of the British Columbia Nurses' Union, Interior Health Authority, Thompson Rivers University and the British Columbia Ministry of Health, and aimed to demonstrate how professional development opportunities can improve recruitment and retention of nurses, quality of work life and quality of patient care.

Background

This project was based in the pediatric unit of the Royal Inland Hospital (RIH), which is part of the Interior Health Authority, one of five geographically based health authorities in British Columbia. The RIH is a 216-bed tertiary referral

hospital in Kamloops, a city in the interior of the province, with a population of about 85,000. The RIH had been finding it increasingly difficult to recruit needed healthcare providers, including nurses. As in other parts of the country, the nursing workforce is aging, and many junior nurses feel inadequately equipped to deal with workplace stresses.

The 80/20 staffing model was introduced as a pilot project to improve recruitment and retention of nurses and hence help to address the current issues with nursing shortages. This model had previously been implemented in Canada in units in two larger urban settings (the University Health Network in Toronto, Ontario and the Regina General Hospital in Regina, Saskatchewan), but not in a smaller institution such as the RIH. Under the model, nurses spend 80% of their salaried time in direct patient care and 20% in various professional development pursuits such as education, mentoring and work-related activities to enhance patient-centred care. When it was introduced in other hospitals, the model led to a number of positive outcomes, such as enhanced nurses' satisfaction with their practice, a decrease in sick time and overtime, and enhanced patient satisfaction scores.

Objectives

This project set out to demonstrate how a model that promotes professional development opportunities for both new and experienced nurses in one unit will enhance their work experience and leadership capacity, create a positive work environment and lead to better recruitment and retention of nurses.

The local-level objectives were numerous and included the following: (a) to improve the retention of existing staff and enhance the profile of the RIH as a desired workplace in order to attract staff; (b) to provide time for nurses to develop leadership and clinical skills and to engage in work-related professional development and mentoring outside of time spent directly on clinical care; (c) to introduce staff to research and allow time for engaging in relevant research; (d) to have a positive impact on measured indicators of job satisfaction and staff engagement within the project site; (e) to identify effective practices for collaboration among different sectors/partners; (f) to have a positive impact on work environment indicators such as decreased overtime, absenteeism and sick leave; and (g) to identify the elements of a program that are suited to other health professionals.

Overview: Design and Planning

In addition to senior management of the Interior Health Authority and Royal Inland Hospital, interested provincial partners were secured – the BC Ministry of Health, the BC Nurses' Union and Thompson Rivers University (TRU).

To launch the project, a project charter and budget were developed, and ethics approval was obtained from the Interior Health Authority and TRU. A hospital unit, which had leadership and nursing staff interested in participating on a voluntary basis, was selected. Eleven registered nurses (RNs) and four licensed practical nurses (LPNs) participated.

A project coordinator (0.5 FTE) was hired to coordinate communications between the national and local steering committees as well as to complete a needs assessment and reports and to work with the RIH program leader and participants to arrange work schedules. Other hires were a clinical educator (0.4 FTE) and clinical support staff (0.2 FTE). The project had three phases – planning, implementation and evaluation – undertaken over a period of 24 months (November 2008 to October 2010). Duration of the implementation phase of the project was originally to be 12 months. However, a delay in starting the project – it began in June 2009 instead of March 2009 – led to a loss of funding from one partner (see “Challenges,” below), and the implementation phase was shortened to nine months.

Two backfill (temporary) RN positions and one LPN position were created in order to accommodate the 20% time off from regular clinical duties accorded to participating staff nurses. The backfill positions were quickly filled – a contrast from the pre-project challenges to fill vacant positions – and the nurses who were hired for these positions were given, and accepted, the opportunity to participate in the 80/20 project.

Implementation

A kick-off event was held, and group events during the project included team development activities and discussion of project activities.

The nurse participants worked with the TRU School of Nursing assistant professor, who was on the provincial steering committee, to create individual learning plans. The clinical nurse educator assisted the nurses in carrying out their learning plans, revising them as needed and locating specific professional development activities.

Participating nurses received 20% of their paid time to engage in professional development activities and were also able to access up to \$2,500 each to pay for some or all of their activities. This additional funding provided reimbursement for actual expenses that nurses incurred related to their activities, including tuition, supplies and travel expenses.

Participants applied for their 20% professional development time based on the available backfill. Restrictions on leaves were relaxed in order to facilitate the additional leave requirements created by this project. The nurses completed leave request forms for their time off, the program leader approved the leaves and the scheduling office at Royal Inland Hospital ensured that the appropriate backfill relief was entered in the work schedule. Occasionally, there was a mismatch in required 20% release time and available relief. In these situations, the participants often cooperated to facilitate one another's release time.

Participants had scheduled professional development time during the summer, but most had difficulty finding formal educational opportunities during summer months because the bulk of professional development activities did not begin until September 2009. As a result, professional development time and the availability of backfill staff did not always match when the time off was required. However, participants were flexible and willing to support colleagues to overcome scheduling challenges.

Even in the fall, there were limited formal education opportunities available in the local, mostly rural, area, especially for the LPNs in the project. However, this circumstance led participants to be creative in their activities and also to explore online and distance education opportunities of which they had not previously been aware.

There were three site visits to the project from representatives of other *Research to Action* projects. In response to participant concerns, reporting requirements were reduced and certain activities (such as meeting site visitors) were deemed optional. The project ended with a wrap-up group event for participants.

Challenges

There were three main categories of challenges – resource challenges, staffing challenges and challenges for participating nurses.

Owing to a delay in starting the national program delivery phase until after the government's fiscal year-end (March 31, 2009), \$100,000 from the BC Ministry of Health that was earmarked for the project in the 2009–2010 fiscal year was unusable. The duration of the project was scaled back to accommodate this financial change, and nurses were given nine months instead of 12 months to complete their learning activities.

A staffing challenge arose when the original project coordinator, who was hired in fall 2008, resigned in May 2009. The new project coordinator required time to familiarize herself with the project participants, program leader, clinical educator, principal investigator and the provincial steering committee. The transition occurred smoothly, although it caused some continuity concerns for participants.

The shortening of the project from 12 months to nine months meant that some of the nurses had to complete their learning activities in a condensed timeframe or complete their learning activities after the project came to a close. Many said they were just getting immersed in their project/professional activities when the project ended.

The project took place in a relatively small community in which formal educational opportunities, particularly for LPNs, were limited. Because of Kamloops's geographic location, nurses often have to travel to other cities, such as Kelowna or Vancouver, for educational opportunities, necessitating the use of professional development funds for travel costs. As well, nurses had difficulty coordinating their work schedules with course start dates and with course demands. Nurses had the freedom to choose professional development activities that fit their learning needs. Although most of the participants viewed this flexibility as a very positive aspect of the project, a few experienced this freedom as challenging and would have preferred to choose from a pre-established list of activities that would be available or possible to undertake. The original requirement for participants to report every two weeks proved onerous for them; therefore, reporting time was reduced to once a month.

Evaluation

In addition to participating in the *Research to Action* initiative's national evaluation, this project was also evaluated provincially. The design of the national research followed action research principles, and the local research continued with this approach.

The local research team, led by principal investigator Marion Healey-Ogden, was composed of five members of the project's provincial steering committee. The local research team collected and analyzed qualitative data from individual phone interviews with 14 of the 15 participating nurses.

All the interviews followed a semi-structured interview guide and were typed during the interview process. The data were immediately read back to the

participants to ensure that what was recorded was an accurate reflection of their comments. The participants' names were replaced with codes before the interviews were analyzed by the local research team.

The interviews gave the nurses an opportunity to describe the experience of participating in the 80/20 pilot project. In order to provide a breadth of data, the program leader and clinical educator were also interviewed about their experiences of working with the nurses who were participating in the project.

Outcomes

In total, participants spent about 4,000 hours in professional development/learning activities. The majority of that time (approximately 2,414 hours) was spent in the pursuit of specialty certification – in chemotherapy, Canadian Vascular Access Association (CVAA) and pediatric – and in obtaining academic credentials towards BSN degrees. The balance included time spent in acquiring technical skills (computer skills and a photography course to aid in creation of a brochure for patients), individual (self) study, mentoring, providing and attending workshops and other project-related activities.

The research showed that nurses' learning experiences positively affected their personal growth as well as the work environment on the unit and their working relationship with all staff on the unit.

Many of the nurses discovered that a variety of different career possibilities exist for them, within the RIH and within nursing. Job satisfaction and staff engagement improved, and many of the nurses indicated that because of the project they intended to remain employed at the RIH. As well, there was a significant increase in interest from candidates seeking to work at the hospital: "I am asking people not to apply anymore because [despite the nursing shortage] people want to work here," the unit manager told the project's Knowledge Transfer Conference, held March 9–10, 2011 in Ottawa.

Specific outcomes included:

- *Pre-op teaching brochure for pediatric patients and their families:* It is anticipated that this brochure, developed by some participating nurses, will be made available throughout the Interior Health Authority.
- *Staff retention:* Of the 14 nurses who were interviewed for the provincial evaluation, seven stated that because of their experiences in the 80/20 project, they would definitely remain working at the RIH. Prior to the project, some

of those nurses were seriously considering leaving the RIH or leaving nursing altogether. Three of the 14 nurses gave neutral responses regarding the impact that the project had on their decisions to stay or leave their nursing positions, mainly because they were settled in Kamloops. They indicated, however, that the project itself could positively influence their future employment decisions. Four of the 14 nurses stated the project did not have an impact on their decisions to remain working at RIH or in nursing because they had already made specific plans regarding their career.

- *Increased quality of care:* As the nurses gained knowledge and skills from their professional development activities, they recognized that the quality of their nursing care improved. In turn, they readily shared their new knowledge with the other staff on the unit whether or not they were participating in the 80/20 project. The entire unit benefited from the participating nurses' experiences.
- *Intersectoral collaboration:* The participating nurses and the leaders on the unit commented favourably about the collaborative partnership between academia and practice that contributed to cohesive and positive working relationships with the staff on the unit and with other staff and departments at Royal Inland Hospital. The nurses highlighted the value of including both registered nurses and licensed practical nurses in this project because this collaboration gave the message that the two groups were being treated equally.
- *Profile of Royal Inland Hospital:* The 80/20 project itself, and the support the nurses received throughout their nine months of professional development, raised the profile of the hospital in the eyes of the participating nurses. They talked about feeling valued, and they expressed their gratitude for being part of the project.
- *Engaging as a team:* The nurses' individual professional development activities had a positive influence on the entire team. Over the nine months of the project, the staff coalesced as a team. The high level of staff engagement arose from a foundation of collegial caring, a positive work environment, increased staff morale and a special bonding relationship that developed over the life of the project.
- *Personal growth and rewards:* The nurses' professional development and related learning journeys involved leaving their comfort zones. The nurses described this experience in positive terms. They gained increased self-esteem, self-worth and self-confidence and, in turn, they experienced a new excitement about nursing. Their personal growth led to experiencing personal rewards such as feeling enriched, respected and satisfied. Specifically, the nurses experienced a work–life balance that had a positive impact on their personal lives and their work environment.

Lessons Learned

- It would have been better if the implementation phase of the project – when nurses became free to pursue professional development activities – corresponded with academic schedules.
- The introduction of the 80/20 model provided opportunities for nurses to experience professional renewal, resulting in a more engaged and informed workforce.
- The opportunity to participate in employer-supported professional development led directly to the retention of nurses. The RIH benefits from the new competencies and skills of these nurses and adds to the capacity of the health authority.
- The collaborative design of the national model was reflected in the provincial working relationships, financial contributions and overall implementation of the BC project. Collaboration can have a positive impact on organizational culture (Ferguson-Paré et al. 2010), and this impact can potentially promote the retention and recruitment of a range of healthcare professionals.

Sustainability and Transferability

The current 80/20 format is not sustainable within the Interior Health Authority at this time. On the pilot unit, the program leader and the new clinical educator are currently exploring opportunities to maintain the momentum generated by the 80/20 project, within existing resources. Opportunities exist to utilize work that came out of the project. For example, a pre-operative brochure that one nurse developed for children and their families is being utilized throughout the Interior Health Authority. The participants valued the professional development time so highly that they would welcome any amount of formal paid PD time, and they suggested building in such time within regular workloads.

Although the primary focus of this project was nurse retention and recruitment, the overall focus was to improve retention and recruitment of all healthcare professionals. This research set the stage to communicate the value of the 80/20 project to government and management. It also set the stage for future implementation of such a model with healthcare professionals other than nurses. Further, it demonstrated the value of nurse unions, employers, governments and academia engaging in new collaborative partnerships.

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NEWFOUNDLAND AND LABRADOR

80/20 Staffing Model Pilot in a Long-Term Care Facility

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Abstract

This project, based in Newfoundland and Labrador's Central Regional Health Authority, is the first application of an 80/20 staffing model to a long-term care facility in Canada. The model allows nurse participants to spend 20% of their paid time pursuing a professional development activity instead of providing direct patient care. Newfoundland and Labrador has the highest aging demographic in Canada owing, in part, to the out-migration of younger adults. Recruiting and retaining nurses to work in long-term care in the province is difficult; at the same time, the increasing acuity of long-term care residents and their complex care needs mean that nurses must assume greater leadership roles in these facilities.

This project set out to increase capacity for registered nurse (RN) leadership, training and support and to enhance the profile of long-term care as a place to work. Six RNs and one licensed practical nurse (LPN) participated and engaged in a range of professional development activities. Several of the participants are now pursuing further nursing educational activities. Central Health plans to continue a 90/10 model for one RN and one LPN per semester, with the timeframe to be determined. The model will be evaluated and, if it is deemed successful, the feasibility of implementing it in other sites throughout the region will be explored.

Background

Newfoundland and Labrador (NL) has the highest aging demographic in Canada, partly due to the out-migration of younger adults. This aging population has

specific and increasingly complex healthcare needs. Although registered nurses in Newfoundland and Labrador who work in long-term care (LTC) are paid at parity with RNs working in acute care, it is still more difficult to recruit and retain nurses in LTC settings.

The Newfoundland and Labrador Nurses' Union (NLNU), the Newfoundland and Labrador Department of Health and Community Services (DOHCS) and the Central Regional Health Authority (CRHA) recognized the importance of addressing these issues and of taking steps to increase recruitment to LTC and enhance its profile as a place to work. The three partners proposed the adoption of an 80/20 RN staffing model, in which nurse participants are freed from regular resident care for 20% of their paid staff time in order to spend that time pursuing professional development activities. The 80/20 model was developed by the University Health Network (UHN) in Toronto (Bournes and Ferguson-Paré 2007) and had been implemented in units in two large urban settings (the UHN and the Regina General Hospital in Regina, Saskatchewan). Until this project, however, the model had not been implemented in a LTC facility.

Carmelite House was chosen as the implementation site. The 64-bed LTC facility is located in Grand Falls–Windsor, a town of about 15,000 in central NL. Carmelite House is linked to the Central Newfoundland Regional Health Centre (CNRHC), a 120-bed regional hospital that provides a number of healthcare services to a population of approximately 100,000 people and covers a 200-km radius. Carmelite House has its own dedicated nursing staff but also shares some casual and float nurses (RNs and LPNs) with the CNRHC. Nursing staff at Carmelite House comprises an RN team leader who works 8 a.m. to 4 p.m. Monday to Friday, four full-time, two part-time and two casual RNs and a number of full-time, part-time and casual LPNs and personal care attendants (PCAs). The usual RN complement on day shift is two RNs including the team leader, and one RN on night shift. Most LPNs are medication proficient and have completed a health assessment course.

Several other allied health professionals are on staff, and two family physicians visit weekly and are available on an on-call basis.

Residents of Carmelite House generally have a number of medical conditions that require continuous supervision and frequently warrant medical intervention. The majority of residents require assistance with activities of daily living and mobility, and many are incontinent of bowel, bladder or both and have some degree of cognitive impairment.

Objectives

The objectives of the 80/20 project at Carmelite House were to

- provide the time for RNs to develop leadership and clinical skills, to engage in work-related activities and to enhance the resident-centred environment;
- improve the measured indicators of job satisfaction at the project site;
- increase capacity for RN leadership, training and support;
- increase the RN retention rates;
- enhance the profile of LTC as a place to work; and
- provide evidence-based research of 80/20 RN models in LTC.

Overview: Design and Planning

A provincial steering committee composed of representatives from each of the provincial project partners, which included the Department of Health and Community Services, Newfoundland and Labrador Nurses Union, Central Health, project lead and project coordinator, met quarterly. They monitored the project activities and assisted in outreach and communication. The 0.4 FTE project coordinator and the manager of Carmelite House led the project implementation and management of the initiative.

Two nurse educators from CRHA's Professional Development Department were valuable resources for the participants and the project coordinator. They were available on request to provide guidance and encouragement. The Communication Department for the Central Regional Health Authority provided support for media coverage for the pilot project.

The 80/20 project took place over 24 months and included three components: program planning, program implementation and program evaluation. During the planning phase, the project coordinator conducted an assessment to identify how, based on the needs of the participating nurses, the 20% time would best be utilized. Educational resources and supports were then developed. A similar-sized LTC facility within the CRHA was selected as a comparator site for the pilot project for the purposes of the national evaluation.

Two part-time nurses from Carmelite House agreed to increase their hours of work, and one casual nurse was hired to provide the extra coverage needed for the 20% replacement. As a part of succession planning, bursaries were offered to nurses in the float pool to engage in gerontology-focused, distance-based courses.

Implementation

Program implementation took place for 12 out of 16 months and was delivered in two phases. In total, six RNS and one LPN participated in the project. In phase one, all five participants were RNs. Three participants engaged in a distance-based university course, one completed a post-basic gerontology diploma program, two attended the Fifth Canadian Conference on Dementia and one developed a falls-prevention program for Carmelite House.

Six RNs (the five from phase one, plus one other RN) and one LPN participated in phase two. Two participants continued work on distance-based university courses, one participant worked on a diabetes educator diploma and the LPN participant worked on courses to transition into a baccalaureate nursing program. Four participants continued work on developing a palliative care policy for Carmelite House.

In addition, participants were able to attend a variety of conferences and workshops, including a palliative care seminar, the 2010 Nursing Leadership Conference, a provincial palliative care conference, a skin and wound care conference, a foot care course and a seminar entitled “A Closer Look at Long-Term Care.”

Challenges

Because of nursing shortages, the biggest challenge the project experienced was scheduling the 20% replacement time for participants. This challenge was ongoing, but the participants worked with the manager and one another to accommodate scheduling changes.

At the start-up of the professional development activities, participants experienced tremendous anxiety because of fear of failure. Of note is the fact that the majority of these nurses had not engaged in educational activities for extended periods of time.

Initial efforts to engage float nurses in gerontology-focused professional development activities to support succession planning were unsuccessful. The focus was broadened to include general nursing-related topics; this change generated much more interest. As a result, five nurses pursued a course in a master's program, one pursued a pharmacology course and one attended a seminar, “Alzheimer's, Memory and Dementia.” (Of the seven nurses who received professional development support, two were full-time to the Professional Development Department [PDD], three were from the float pool, one was the new team leader at Carmelite House and one nurse was a team leader from

one of the medical units at the regional health centre. The two nurses from the PDD provided support to the project participants and project coordinator during the implementation phases and assisted with organization of guest speakers in the absence of the project coordinator.)

Timely financial reporting presented some challenges, likely because of insufficient communication and a change in the original contact person from the finance department.

The reality of having very busy individuals on the provincial steering committee with multiple responsibilities and conflicting schedules created some difficulty with scheduling meetings.

Outcomes

Many of the nurses were initially very anxious about undertaking professional development activities, but when they became engaged and started to experience success, their confidence grew, and they actively requested education relevant to the LTC setting. By the project's end, participants expressed a high level of satisfaction with the staffing model and showed an increased interest in professional development activities.

At the end of the project, four participants expressed an interest in registering for the post-basic program in gerontology for nurses. Two of these individuals did register for the program and are, at the time of this submission, actively engaged in the program. Three project participants have expressed a plan to write the CNA certification exam in gerontology. Central Health will provide financial support to nurses who pursue CNA certification.

There have not been any on-site measured indicators of benefits to resident care. However, the nurse manager at Carmelite House has observed improvement in documentation and assessment skills, and there has been a decrease in the number of resident falls. Family members have provided some very positive feedback on the quality of care received by their loved ones, particularly in relation to the palliative care suite. All this indicates that education has had a positive impact on quality of care.

Project results show evidence of an increase in leadership. The team leader at Carmelite House retired, and her replacement is a float pool nurse who received funding for a master's course through this program. The LPN participant is now enrolled in a baccalaureate nursing program. The nurse who developed

the falls-prevention program for Carmelite House had her work integrated into the development of a regional falls-prevention program.

The size and timeline of the project did not permit a formal investigation of its effect on staff retention. However, project steering committee members received positive feedback from nurses who reported greater job satisfaction and increased intention to remain on the job. Nurses felt the project improved the profile of nursing in LTC by recognizing it as a specialty requiring its own set of desired skills and competencies. Finally, the positive outcomes suggest that staffing plans such as the 80/20 model are an effective means to improve work life in the LTC setting.

Lessons Learned

- *Provide an opportunity, nurture appropriately and growth will occur.* Nurses working in LTC often feel like “poor cousins” who lack opportunity because they are perceived as doing less important work than hospital-based nurses. This project has provided an opportunity to a group of nurses who, by their own admission, would not otherwise have participated in professional development activities for a number of reasons, not the least of which was fear of failure.
- *Confidence is developed through success in these efforts.* Confident nurses provide high-quality care and improve resident care.
- *Unions, governments and employers can sit on the same side of the table* to create positive solutions to problems that could adversely affect patients, families and other stakeholders. The ongoing nursing shortage, and the many issues that affect retention and recruitment of nurses, is one such issue.

Sustainability and Transferability

From a financial and human resources perspective, the 80/20 model is not perceived as sustainable. The provincial steering committee has discussed the feasibility of alternative models, such as an 85/15 or a 90/10 format that could be offered to a limited number of nurses, for example, six at a selected facility within the CRHA. This would be done for nurses who express an interest in professional development activities. There has also been some discussion on the types of facilities that could best support such a program from a human resources perspective – that is, rural, urban, LTC and acute care. At this time, Central Health plans to continue an 85/15 model for one RN and one LPN per semester (timeframe to be determined). The model will be evaluated and, if it is deemed successful, the potential to implement it in other sites within the region will be explored.

Reference

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NOVA SCOTIA

Late Career Nurse and New Graduate Transition

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Abstract

Addressing Canada's growing shortage of nurses requires effective strategies for their education, retention and recruitment. Although Nova Scotia produces more than 250 registered nurses and 125 licensed practical nurses each year, some 20% of these graduates leave the province to work elsewhere. The Nova Scotia *Research to Action* project focused on three retention and recruitment projects: (a) a new-nurse graduate orientation/transition framework, (b) guidelines for nursing mentorship and (c) an online employment tool to assist in the hiring of new nurse graduates. Project partners continue to work collaboratively to advance these provincial initiatives.

Background

Canada faces a growing shortage of nurses, underscoring the necessity of effective strategies for their education, retention and recruitment. Thirty-five per cent to 61% of new graduates change their place of employment or leave nursing altogether within their first year of practice for a variety of reasons, including poor training, poor support systems and poor job satisfaction (Cowin and Duchscher 2006). It is generally acknowledged that orientation and transition programs have a major impact on new graduates' decisions to stay with or leave an organization. A study conducted by the Foundation for Nursing Excellence (2009) on an evidence-based transition-to-practice initiative reported that successful programs that include positive preceptor–new graduate partnerships lead to increased feelings of competency on the part of new graduates, as well as increased competency scores and significantly fewer practice errors.

Although Nova Scotia nursing education programs have recently produced more than 250 registered nurses and 125 licensed practical nurses each year, about 20% of these graduates leave Nova Scotia upon graduation to work elsewhere. This exodus is believed to be due to aggressive recruitment by other jurisdictions and, perhaps more importantly, the ease of applying online for jobs in provinces such as Alberta and some parts of the United States. Complicating the problem is the fact that Nova Scotia does not have a provincial mechanism to coordinate job offers between new graduates and the district health authorities (DHAs) or long-term care or community care employers. Instead, graduates have had to locate vacancies on their own and apply separately to each DHA. In addition, Nova Scotia healthcare organizations rely heavily on overtime to fulfill nurse staffing requirements. Turnover negatively affects staff at the unit level, and senior staff are typically expected to work additional hours and with less support. High turnover also has an economic price, with the average cost of turnover to an institution in Canada estimated at \$25,000 (O'Brien-Pallas et al. 2008).

The Nova Scotia *Research to Action* (RTA) project focused on three retention and recruitment initiatives: (a) new-nurse graduate orientation/transition, (b) mentorship guidelines and (c) tools and coordination of new graduate hiring in Nova Scotia. The goal of each was to create a standardized provincial approach to support new graduates during their first year of practice, increase retention and create a level playing field for all DHAs in the recruitment of new nurse graduates.

As part of the development of the first project, the Provincial Orientation and Transition Framework for New Nurse Graduates, two studies were conducted to assist in the development of a new-nurse orientation and transition-to-workplace program. These two studies were used to assist the project committee in the development of proposed provincial guidelines that included the following recommendations:

- The orientation period of new nurses will include a combination of classroom and clinical experience delivered over 12 weeks.
- Preceptor support will be required for the clinical orientation experience.
- Formal progress meetings will be held with the new graduate, nurse educator, manager and preceptor.
- Ongoing mentorship and peer-to-peer support will occur.

The second project, the 80/20 Late Career Nurse Strategy Mentorship Program Guidelines and Tools, entailed the development of tools and workshops providing educational opportunity for both mentors and mentees. A framework and

facilitator and participant manuals were developed for the workshops. Five workshops were held with over 75 participants. Nurses involved in the 80/20 projects had new opportunities to learn, build their own leadership capacity and make important practical contributions to their practice settings.

The third project, the Online Employment Tool for New Nurse Graduates, focused on the development of a provincial online tool to coordinate job offers between new graduates and the DHAs or long-term care or community care employers. The tool enabled access to employers' profiles to allow students to learn about potential employers and for students to upload documents (cover letters, résumés, references) into an online student profile for employers.

The projects' provincial partners included the Nova Scotia Nurses' Union, the Nova Scotia Department of Health and Wellness and the district health authorities. There were, as well, a number of supporting partners, including the Nova Scotia HSPnet (Health Services Placement) management committee, three university schools of nursing (Dalhousie, Saint Francis Xavier and Cape Breton), the Nova Scotia Community College (which offers licensed practical nurse programs), the regulatory bodies for registered and licensed practical nurses, the Registered Nurses Professional Development Centre and the Provincial Nursing Network.

Objectives

The specific objectives of the Nova Scotia projects were

- to develop a provincial orientation and transition framework for new nurse graduates;
- to develop mentorship guidelines and tools for the 80/20 Late Career Nurse Strategy; and
- to develop an online employment tool for new nurse graduates.

Implementation

A full-time project coordinator was contracted for a 27-month period (January 2009 to March 2011). A full-time administrative assistant was also hired; this support was required to assist with the research ethics board submissions, as well as other administrative and support tasks. A 0.5 FTE research assistant was contracted for six months, primarily to work with the evaluation consultants and prepare for the multi-modal evaluation strategies required by the various DHAs participating in the pilot project.

The original project called for the participation of three district health authorities. The Nova Scotia steering committee decided to extend the project to apply to the entire province, and this led to an increase in the expected length of time required to complete the research ethics board approval process. The province's nine DHAs and IWK Health Centre in Halifax each has its own research ethics board. As a result, the scope of the project had to be reduced. As well, the H1N1 influenza epidemic, and an impending labour strike action by unionized staff in the DHAs and IWK Health Centre, resulted in the project partners' diverting considerable time to these important, but non-project-related, concerns.

Project Components

1. Provincial Orientation and Transition Framework for New Nurse Graduates

Two studies were conducted to assist in the development of a new-nurse orientation and transition-to-workplace program.

First, an external consultant was engaged to develop an inventory and, when possible, identify best practices of new-nurse orientation programs in Nova Scotia. An inventory was conducted among the acute care facilities in the nine DHAs, the IWK Health Centre, community care as delivered by the Victorian Order of Nurses Halifax and selected long-term care facilities in Nova Scotia. The inventory collected information on the core orientation components, including (a) pre-orientation practices, (b) general/district orientation practice, (c) general nursing orientation, (d) clinical skills orientation, (e) preceptor practice, (f) follow-up and (g) evaluation. The identification of best practices included components/elements, competency-based practices, innovative approaches and socialization practices.

The inventory revealed wide-ranging variability across the province and identified critical differences between the various healthcare facilities, districts and communities in the provision of new-nurse orientation and transition programs (Sampson 2009).

The second study, a comprehensive pan-Canadian literature review of new-graduate transition research, was conducted to identify components of programs that may be regarded as best practice in enhancing the effectiveness of orientation and that produce positive outcomes.

These two studies were used to assist the project committee in the development of proposed provincial guidelines for an enhanced new-nurse orientation and transition support, which included the following recommendations:

- The orientation period of new nurses will include a combination of classroom and clinical experience delivered over 12 weeks.
- Preceptor support will be required for the clinical orientation experience.
- Formal progress meetings will be held with the new graduate, nurse educator, manager and preceptor.
- Ongoing mentorship and peer-to-peer support will occur.

The Registered Nurses Professional Development Centre (RNPDC) provided additional funding to assist with developing the Provincial Orientation and Transition Framework. The framework was presented to the Provincial Nursing Network, which has continued to implement this standardized approach in supporting new graduates and transitioning nurses in Nova Scotia.

2. 80/20 Late Career Nurse Strategy Mentorship Program Guidelines and Tools

This program provided an educational opportunity for both mentors and mentees to gain an understanding of mentorship and its benefits to all involved. The goals of the mentorship program were to develop evidence-informed guidelines for the mentor component, utilizing designated provincial 80/20 Late Career Nurse Strategy (LCNS) funding, in order to determine how the mentor role meets the needs of eligible nurses related to workplace retention and, through collaboration, to develop the 80/20 LCNS (which includes scheduling and expectations for the mentor role).

A consultant with program planning and development expertise completed the developmental work for the mentorship program along with facilitation and co-facilitation of program workshops. The RNPDC provided a 0.5 FTE to continue the coordination of the provincial mentorship program. The workshop design and new-graduate transition program was greatly influenced by the work of Dr. Judy Boychuk Duchscher of the University of Calgary's Faculty of Nursing, who has extensively researched the transition that occurs when a student nurse moves from the student role to that of a professionally practising nurse. From her research, she has developed the Transition Stages Model, which outlines what it looks and feels like to move through these stages and what can be done to help the new graduate (Figure 1).

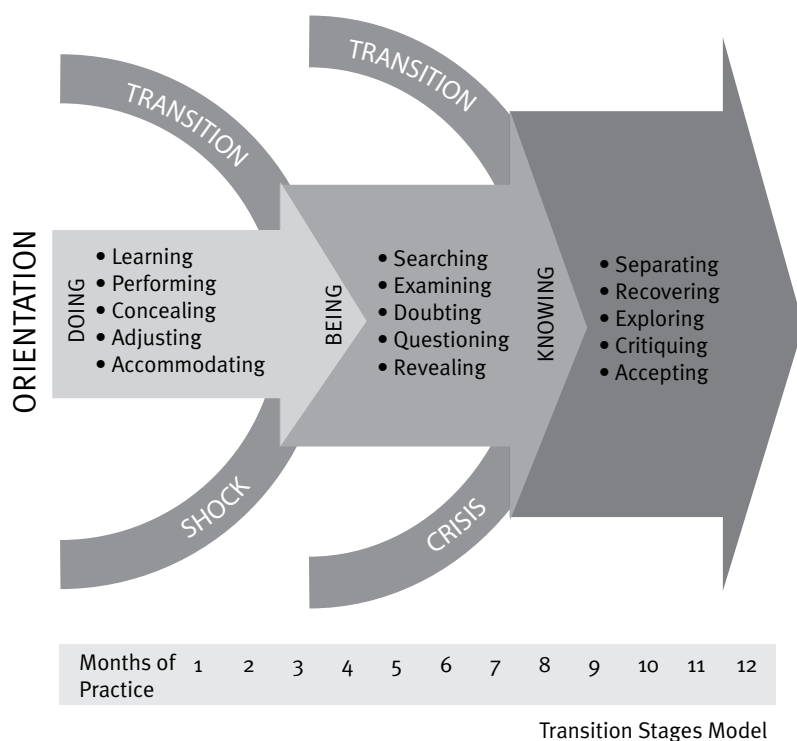
Mentor workshops: Design and implementation

These workshops were designed as one-day, eight-hour workshops. The design was flexible so that the program could be delivered to intact groups of mentors, intact groups of mentees or to a mixed group of mentors and mentees. The goal of the workshops was to teach the basics of mentorship and the mentoring

relationship, as well as the challenges that may be encountered in mentorship of new nurse graduates, and also to expand mentoring opportunities for senior nurses.

Figure 1.

Transition Stages Model



Source: Duchscher n.d.

Two manuals were developed for the workshops: a program participant manual and a guide for the facilitators leading the workshops.

The *Mentorship Facilitator Manual* included instructions for the program facilitators as well as pre-session preparation, instructions, agenda, workshop objectives and a PowerPoint presentation. Detailed instructions and discussion notes served to guide facilitators through “icebreaker” exercises and 15 structured activities (e.g., identification of supports required during phases of the transition period, mentee–mentor trust-building strategies, qualities of a successful relationship,

assessing mentee progress, multi-generational issues, conflict management, self-assessment for signs of stress in oneself and in the workplace, and coaching).

The *Mentorship Manual* given to participants included the workshop objectives, ground rules, agenda and an overview of the Transition Stages Model (Figure 1). It also included an overview of mentoring/preceptorship; benefits for the mentor, mentee and organization; stages of mentorship; generations in the workplace; personal learning goals, planning and assessment; giving feedback; listening effectively; conflict management skills and resolution; stress identification and management; and coaching. Additional resource materials were included in an appendix.

Five workshops were held with nurses participating from six DHAs; there were over 75 participants. Nurses involved in the 80/20 projects had new opportunities to learn, build their own leadership capacity and make important practical contributions to their practice settings. New graduates also identified that the support provided by their mentor has aided their transition to practice.

Recruitment and participation in 80/20 Late Career Nurse Strategy

The initial package for the 80/20 LCNS program, which was developed at the Department of Health and Wellness by the Office of Nursing Advisory Services, was revised and distributed to the nine district health authorities, the IWK Health Centre and long-term and continuing care facilities in the province to communicate to nurses the opportunity to participate in mentoring workshops and to become potential mentors for new nurse graduates.

The Nova Scotia Department of Health and Wellness provided funding for the backfilling of positions for those nurses attending the mentorship program workshop and participating in the 80/20 projects. The department also supplied communications advisers to assist with development of resources and strategies for project marketing. The DHAs contributed the funding for new graduates to attend the mentorship program workshops and a 0.3 FTE to lead and support the mentorship program and 80/20 projects within their respective districts. The employers provided human resources consultants and administrative support from various levels within their district health authority to assist in data collection and the evaluation strategies.

Eight DHAs applied to participate in the 80/20 project, and those employers posted invitations for nurses to apply. A lower-than-expected number of late career nurses applied, and the steering committee agreed to expand the criteria

to include other interested registered nurses, leading to an increase in applications. There was significant resistance from some nurse managers to the introduction of the 80/20 model, and this point was addressed through strong, committed and continued leadership at the district level in moving cultural change forward.

A total of 20 nurses participated as mentors from five DHAs. Some resources were adapted from the 80/20 strategy implemented in the *Research to Action* project in British Columbia. The primary role for participating nurses was to act as mentors to new nursing graduates, but there was also time for mentors to engage in a range of other professional development activities, such as new practice protocols for critical care and emergency care, development of patient education brochures and a cardiopulmonary resuscitation policy for one of the participating DHAs. All mentors received education and training, and manuals were developed for participants and facilitators.

3. Online Employment Tool for New Nurse Graduates

This project focused on the development of a provincial online tool to coordinate job offers between new graduates and the province's district health authorities, long-term care and community care employers.

The NS Department of Health and Wellness utilizes a web-based system for managing nursing practice education. The Health Sciences Placement Network (HSPnet) was launched in April 2003 by the BC Academic Health Council and provides a web-based system for managing practice education in the health sciences with a database and tools to support practice education. With funds from the RTA project, an enhancement to HSPnet was purchased that enables the system's capacity to develop an online, coordinated provincial approach to new graduate hiring.

A multi-stakeholder HSPnet deployment work group developed and piloted the employment tool for new graduates. The tool enabled access to employers' profiles to allow students to learn about the employer and for students to upload documents such as résumés and references into an online student profile for employers. Employers were assisted in the development and activation of their site profiles in workshop/training sessions and also teleconferences conducted by the national HSPnet director with employers' human resources personnel. Consent forms were revised by the universities to enable student access to HSPnet.

The HSPnet employment tool for new graduates was launched in July 2010 with a small pilot group of 17 students who were graduating from the Dalhousie School of Nursing. A delay in the full implementation of the HSPnet enhancement for new graduate employment was due to the workload of the national HSPnet team and revisions to consent forms requiring the approval of the university's legal department. Full implementation of the tool began with the spring 2011 graduating classes of Dalhousie and St. Francis Xavier universities' schools of nursing.

The HSPnet new graduate employment tool that was developed through this project is now available across Canada to educational programs that use HSPnet for student placement.

Lessons Learned

- The individual projects could have been implemented earlier if the scope of the overall RTA project had not been expanded beyond the original proposal.
- In organizations where there are deep-seated trust issues in management, or where the culture is change resistant, the introduction of a new 80/20 model requires strong, committed and persistent leadership. This is required both to encourage adoption of the model by nurses but also to ensure support of the change by front-line and middle management.
- Employers should receive the tools to aid in successful implementation of 80/20, and managers should be included in the mentorship education programs to support scheduling and meetings between mentors and mentees.
- To facilitate mentor–mentee communication, a variety of strategies should be employed: group mentoring sessions, face-to-face meetings, and communication through telephone calls, email and messaging.

Sustainability and Transferability

Project partners are continuing to work collaboratively to advance these provincial initiatives.

- The orientation and transition framework has been presented to the Provincial Nursing Network, and work continued in 2011 to implement this evidenced-based, standardized approach to supporting new graduates and transitioning nurses.
- There is very strong interest in and advocacy for the 80/20 initiative to continue among project partners. The mentorship program will continue as a provincial program under the auspices of the Registered Nurses Professional

Development Centre. Another provincial union that represents nurses, the Nova Scotia Government Employees Union, has also expressed interest in the 80/20 initiative.

The HSPnet Online Employment Tool can be broadened for use with the Co-operative Student Employment Opportunity for third-year nursing programs and, eventually, with graduates of the Continuing Care Assistant Program and those of licensed practical nurse programs.

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RESEARCH TO ACTION

Mentorship Projects

Introduction

Evidence suggests that nurses will leave their jobs if they are not satisfied with working conditions (O'Brien-Pallas et al. 2001; Irvine and Evans 1995). Studies show that as many as 66% of new nurses experience burnout, which they associate with unfavourable working conditions. One study reported an alarming 30% turnover rate in the first year of practice for new graduates (Bowles and Candela 2005). More experienced nurses are not immune to the effects of poor work environments and similarly report high levels of burnout, absenteeism and attrition (CFNU 2011; Lasota 2009; Greco et al. 2006; Laschinger 2004).

The nursing literature also suggests that professional development opportunities, including mentorship, can help alleviate nurse burnout and thus promote retention (Ferguson-Paré et al. 2002; Messmer et al. 1995). Among other benefits, new nurses perfect their competencies and grow in confidence, while experienced nurses feel valued, increase their confidence and are more likely to continue nursing (Kilcher and Skettri 2003; Greene and Puetzer 2002; Wright 2002; McGregor 1999).

Mentorship in nursing involves pairing new nurses or new recruits with more experienced nurses. The mentor and protégé develop a personal relationship that provides a safe environment for role modelling, constructive feedback, advice and other positive means aimed at improving nursing competency (CNA 2004; UBC College of Health Disciplines 2004). Preceptorship is closely related to mentorship, but is typically aimed to help acquire competency in a particular area over a more limited period of time (CNA 2004).

Several of the *Research to Action* (RTA) pilot projects implemented mentorship programs. Some of these projects included other components and are thus considered in different sections of this journal. Two mentorship projects will be considered in the present section.

- The Manitoba project implemented a mentorship program and a series of workshops for nurses at three long-term care homes in the Winnipeg Regional Health Authority. Twenty-three nurses (RNs and LPNs) took part in mentorship, including 11 mentors and 12 protégés, while 390 staff attended the six workshops.

- The New Brunswick project implemented a new mentorship program along with its enhanced, online orientation program (both in French). A total of 28 nurses have received mentorship training, and to date, 26 protégés have been mentored.

Knowledge transfer was built into the design of these RTA projects. To this end, partners from projects with mentorship programs shared literature, mentorship guides and other resources, and also visited one another's projects. This collaboration was mutually beneficial and contributed to the creation of effective mentorship programs.

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MANITOBA

Enhanced Orientation for Nurses New to Long-Term Care

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Abstract

The Manitoba pilot project, Enhanced Orientation for Nurses New to Long-Term Care, lasted 18 months and involved three sites in the Winnipeg Regional Health Authority. It was developed to address the reality that individuals entering long-term care have more complex needs than in the past and that it is often difficult to recruit and retain nurses to work in this care setting. This mentorship program included 11 mentors and 12 protégés. As well, six clinical workshops were developed and held for a total of 390 participants. Protégés reported a positive effect on their transition to the workplace and their confidence levels, and mentors reported building their mentorship skills. The program has been expanded within the Winnipeg Region and to other health regions in the province and in Canada.

Background

Demands on long-term care are growing as people are living longer and the needs of individuals who enter care are becoming more complex. At the same time, it is often more difficult to retain and recruit nurses in the long-term care sector. The seriousness of the situation has been underscored by several recent reports (e.g., CHA 2009; Silversides 2011). According to Linda Silas, president of the Canadian Federation of Nurses Unions:

We cannot afford to undervalue the role of nurses in long-term care. There is no lack of research indicating that nursing care is strongly correlated to better patient outcomes. ... What better way is there to honour our elders than providing them with the care they deserve? (CHA 2009: 8)

Many people think of personal care homes as a supportive place for the elderly to live as they grow older. But increasingly, these facilities are housing residents who have complex care needs and require a high level of professional care and support. Residents often have multiple medical issues, sometimes have psychological challenges, and in many cases have dementia, which causes progressive cognitive decline. Indeed, it has been said that long-term care facilities are now providing “acute care for the elderly.” A more experienced health workforce is required as the elderly account for a growing proportion of the population and, owing to greater longevity, more of them are living with multiple illnesses and degenerative conditions. Recognizing these issues, the Winnipeg Regional Health Authority (WRHA), Manitoba Health and the Manitoba Nurses Union collaborated to pilot this project at three of the 38 long-term care facilities in the WRHA.

Objectives

The project was designed to provide nurses new to long-term care with a better understanding of the needs of the long-term care resident population in order to improve care, enhance the work experience and create a positive work environment. As well, the project aimed to create a collaborative working partnership – outside of the normal labour relations and collective bargaining environment – between the Manitoba Nurses Union, Manitoba Health and the WRHA in order to address specific and urgent nursing workforce retention and recruitment issues. Because of the profile and needs of individuals who are now being admitted into care, nurses (and residents) benefit from further education for nurses. To that end, high-quality orientation workshops were created on a range of subjects (including conditions such as dementia and delirium, as well as assessment skills), and the nurse mentors received education to develop and enhance their mentoring skills. Another purpose was to provide some consistency in long-term care orientation programs in Manitoba, which currently vary from two days to less than two weeks and tend to be specific to an individual facility.

The objectives of the program were to

- improve retention of nurses in long-term care by providing better orientation;
- enhance the profile of long-term care as a desired workplace;
- develop greater capacity for nursing leadership, training and support within a long-term care facility;
- develop an inter-professional component to the long-term care orientation program; and
- enhance the geriatrics-related knowledge and skills of healthcare providers who are new to long-term care.

Overview: Design and Planning

A full-time project coordinator was hired in January 2009 to manage and oversee the pilot implementation. The project coordinator was contracted for an 18-month period (January 2009 to June 2010). Project planning began in February 2009. Various levels of administrative support were also required throughout the project for start-up (ordering equipment, arranging office space and so on), receiving registrations and answering questions about the clinical workshops, and collating the workshop evaluations and pre-/post-test responses.

Content experts were engaged to assist with the development of some of the workshop materials. Some of the content experts were employees of the WRHA and undertook the work as part of their jobs, while outside consultants were hired to develop and deliver certain portions of the clinical workshops. The project coordinator developed and delivered the mentoring workshops and one of the clinical workshops as part of her role. A graphic design company was hired to assist with the layout, design and printing of the workshop materials.

Twenty-three nurses took part in the mentorship component of the pilot – 12 nurses new to long-term care (protégés) and 11 mentor nurses who were experienced in the area. Of the 12 protégés, nine were new graduates, while the other three had worked in other settings; eight were licensed practical nurses (LPNs) and four were registered nurses (RNs). Of the mentors, two were LPNs and nine were RNs. One mentor was lost to attrition when she took a job at a non-participating long-term care facility.

Implementation

At the beginning of the pilot, the 12 protégés were matched with an experienced nurse from their personal care home so that the mentors could provide support and guidance. In September 2009, the nurse mentors attended a one-day workshop designed to enhance their mentoring skills. A week later, both mentors and protégés attended a one-day orientation workshop so that they could meet their partners, discuss expectations of the mentoring relationship and review tools, such as a goal-setting template, a problem-solving framework and mentoring relationship evaluations, that might be helpful throughout the mentoring journey.

Mentoring activities took place between September 2009 and April 2010. Some mentoring relationships extended beyond the project timeframe based on the protégé's needs or the development of close bonds. The frequency of the mentor–protégé meetings varied based on individual work schedules. The pairs often met for coffee or lunch during worked shifts or had contact by phone.

Mentors and protégés also attended a series of six day-long workshops between October 2009 and April 2010 that were based on topics of clinical relevance to the care of individuals in long-term care. The workshop topics were:

1. Geriatric Assessment/Changes with Aging; Atypical Presentation of Illness and Infection; Medication and Aging/Polypharmacy
2. Dementia/Delirium/Depression: Differentiation and Management; The Brain and Behaviour: Supportive Dementia Care Strategies; Communication and Dementia
3. Behavioural Responses in Dementia: Assessment, Intervention and Psychotropics; Prevention of Abuse and Neglect; PIECES Overview: A Model for Collaborative Dementia Care
4. Pain Assessment and Management; End-of-Life Care; Fall Prevention and Management; Least Restraint Philosophy/Restraint Reduction Strategies
5. Everyday Leadership and Communication Skills for LTC: Critical Thinking and Prioritization; Clinical Presentation Skills; Integrating Best Practice; Communication Techniques; Conflict Management Strategies
6. Nutrition and Hydration; Swallowing and Communication Difficulties; Oral Health; Pressure Ulcer Prevention; Continence/Incontinence Assessment and Management

A total of 390 staff attended the six clinical workshops. The majority of attendees were nurses, but others included registered dietitians, social workers, occupational therapists, speech–language pathologists, a chaplain and a patient safety officer. Each workshop, developed by experts in the various subject areas, was repeated twice. Interactive sessions included PowerPoint presentations, activities and case studies. At each session, a participant’s handbook was distributed.

Challenges

At the project’s three sites, the number of recently hired (or about-to-be hired) nurses new to long-term care was lower than expected. This challenge was addressed by including nurses new to long-term care who had been hired up to six months before the starting date of the project. Still, the number of participants was, at 23 (11 mentors and 12 nurses who were new to long-term care), lower than the 30 nurses anticipated in the original proposal.

A challenge that was anticipated – arising from the fact that the mentorship allowance (part of the current Manitoba Nurses Union contract) did not apply when protégés were experienced but new to long-term care and not new graduate nurses – did not have an impact on the project. The restricted application of

the mentoring allowance was discussed during the recruitment process but did not deter those nurses who stepped forward as volunteer mentors to the protégés who were not new graduates.

Outcomes

An enhanced orientation program, including a curriculum of best practice clinical information, was developed and implemented. All of the workshop evaluations were positive, and pre- and post-tests showed significant uptake in knowledge. Participants believed the workshops offered crucial foundational knowledge for nursing staff who work in long-term care.

The project as a whole was evaluated as part of the national RTA evaluation. It was not possible to measure the effects of this particular project on nurse retention and recruitment, given the short timeframe and small study size. However, the project supported positive workplace improvements, including mentorship and professional development opportunities, which are known to promote retention and recruitment (Greene and Puetzer 2002; Hurst and Koplin-Baucum 2003; O'Brien-Pallas et al. 2001;) Similarly, it was difficult to measure just how much the project enhanced the profile of long-term care as a desirable place to work; more time is needed to reach staff in other sectors about the existence, benefit and ongoing availability of this program.

Protégés revealed in focus groups that the enhanced orientation program had a positive effect on their transition into their new jobs and on their confidence level in the work setting. The mentors enhanced their leadership abilities and reported that they appreciated the opportunity to improve their mentoring skills and share their experiences and knowledge with the new nurses, while at the same time feeling supported as mentors.

The project sought to develop an interprofessional component in the orientation program and, based on their evaluation reports, the staff from disciplines other than nursing who attended the clinical workshops said the experience was positive. Multiple-choice tests administered to all the workshop participants before and after the clinical workshops showed a measurable improvement in knowledge of key concepts.

A program guide for this enhanced orientation was developed, and copies were printed for distribution to stakeholders to promote the sustainability and transferability of the project. The program guide contains all of the educational material and electronic files required to reproduce the Enhanced Orientation

Program for Nurses New to Long-Term Care.

Lessons Learned

- The project clearly filled an important need. Response was very positive, and attendance at the clinical workshop series was beyond expectations. Many nurses indicated that they had come in on a day off, or taken a vacation day, in order to attend.
- The pilot sites' managers should have been involved in the mentoring education so that they understood the process and were prepared to support both the mentor and protégé in the mentorship experience. For a mentoring program to be successful, the management team and front-line manager need to be supportive and involved in monitoring the relationships. They must also be prepared to act as a sounding board or intervene as needed. As well, the mentors require support throughout the mentoring process. It also would have been helpful to hold a second session with the mentors at the mid-point of the project in order to continue to build mentorship skills and provide an opportunity to discuss the progress of the mentoring relationship.
- Mentors and protégés reported difficulties finding time to meet if they did not both work on the same unit. In future, it would be best to link nurses who work on similar units or rotations, when possible, in order to facilitate face-to-face meetings.

Sustainability and Transferability

The Winnipeg Regional Health Authority's Personal Care Home Program agreed to continue with the Enhanced Orientation for Nurses New to Long-Term Care, and will include other staff at personal care homes in the WRHA. The WRHA is also interested in expanding the mentorship and education component of the program to other sites within the WRHA. In June, 2011, the Manitoba's premier announced funding to permanently implement the enhanced orientation program in long-term care facilities across the province.

The program has spread in Manitoba beyond the Winnipeg Region. The Parkland Regional Health Authority in western Manitoba has adopted the RTA mentoring education materials to its mentorship program and has started to use the material to train mentors, new nurse graduates and managers. Another rural health region in Manitoba has also expressed interest in adapting the project's mentoring education materials to its mentorship program, and the Department of Health and Wellness in Prince Edward Island has begun to implement the enhanced orientation program's clinical workshop series in all public and private long-term care facilities in that province.

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NEW BRUNSWICK

Development of a Web-Based Orientation Program and Enhancing Senior Nurses' Mentoring Skills

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Abstract

This project to help new nurse recruits integrate into the hospital work environment had two components: the development of a new web-based orientation tool in French for new recruits and mentor training for more experienced nurses. The aim of the first component was to redesign delivery of the nursing orientation program by assessing individual needs of new recruits and developing “just in time” information sessions with online access and e-learning modules. The second component aimed to develop a voluntary mentorship training program for senior nurses that offered training on the role and responsibility of mentors.

A total of 30 orientation modules were created as resources that could be adapted to the needs of each nursing unit and accessed online. Sixty nurse recruits used the programs. A mentor training program was developed, and 28 nurses were trained as mentors. The mentorship literature and guides, produced in French, will be a valuable resource for francophone nurses across Canada.

Background

Research shows the importance of supporting new nurse recruits during their transition to the workplace (Greene and Puetzer 2002, Cowin and Duchscher

2006, Duchscher 2011). Starting a career, or a new position, can be a very stressful and critical time. Depending on their experiences, nurses may move from one unit or facility to another, or even leave the profession entirely.

In New Brunswick, Canada's only officially bilingual province, services must be offered in both official languages. Before this project, the nursing orientation program at the Dr. Georges-L.-Dumont University Hospital Centre consisted of two weeks of classroom training and at least two weeks on a unit in a supernumerary position (i.e., a position over and above staffing requirements). One mentor was available to all new recruits.

To help new recruits better integrate into the work environment, this project had two components: the development of a new web-based orientation tool in French for new recruits and, to provide additional help, mentor training for more senior nurses – an initiative with the added benefit of acknowledging and valuing the knowledge and expertise of experienced nurses.

Objectives

The project aimed to redesign how the nursing orientation program is delivered by assessing the individual needs of new recruits and developing “just in time” information sessions with online access and e-learning modules. Just-in-time learning systems are defined as systems to “deliver training to workers when and where they need it. Rather than sitting through hours of traditional classroom training, users can tap into Web-based tutorials, and other tools to zero in on just the information they need to solve problems, perform specific tasks or quickly update their skills” (Sambataro 2000). Online access to orientation modules meets the demands of the new generation of nurses who are, in general, computer-savvy and familiar with e-learning. It was anticipated that the new program would increase participants' retention of orientation information and better prepare newly employed nurses for their patient assignments. As well, making orientation available online removes the need to wait for classroom orientation cycles; nurses can be hired and start orientation immediately.

Another goal was to better prepare senior nurses for the training of new recruits and improve the overall quality of work life. To that end, the project aimed to develop a voluntary mentorship training program for senior nurses that provides training on the role and responsibility of mentors.

Additionally, the tools created by the project will be portable and thus easily shared among health facilities, and the entire project will contribute to

evidence-based research on mentoring models and the integration of new recruits into the work environment. Finally, the project would evaluate the satisfaction of new recruits, mentors and staff with the new orientation program.

Overview: Design and Planning

The Nursing Administration and Education departments of the Vitalité Health Network – Zone 1^a worked in collaboration with the Université de Moncton and GTA (Groupe des technologies de l'apprentissage) for the duration of the project. A half-time (2.5 days/week) project coordinator was allocated, as well as an administrative assistant for the equivalent of one day per week. The communication plan for the project consisted mainly of informing managers through e-mails as well as sharing information in management and education meetings.

The project evaluation occurred through discussion forums with new nurses, mentors and members of the *Research to Action* steering committee at the beginning of the project, at mid-point and at the project's conclusion. As well, new nurses, mentors and a group of target nurses from the nursing units were surveyed at the beginning and end of the project.

Two subcommittees were created, namely, a web subcommittee for the development of the web-based orientation program and a second subcommittee to oversee the development of the mentorship program.

Implementation and Challenges

Creation of web-based orientation program

The GTA experts in instructional design met many times with each of the content experts to adapt the existing orientation information to a web-based format and to design each orientation module. Two super-users (training consultants) from the Education Department were trained to identify the pedagogical support that would be needed by the online users. Access to modules was provided to new nurses, mentors, clinical resource nurses, clinical nurse specialists and nursing unit managers.

With the advent of the online orientation tools, the orientation schedule was modified so that users could complete modules at home and at a convenient time.

New recruits were given information sessions to introduce them to online access and the e-learning modules. The needs of new recruits were assessed and, based on individual learning requirements, they were assigned orientation modules. Upon completion of the modules, a certificate was issued. Access to the web-

based modules was available at the workplace and off site. Nurses taking the online courses were paid as if they were in the classroom. The online modules were made available progressively.

The web subcommittee held meetings to identify the steps needed to ensure the sustainability of the project – in particular, the transfer of content, and ways to update it and ensure continuous quality improvement.

Challenges

In fall 2009, the H1N1 influenza pandemic hit the Moncton area hard and slowed down activities associated with the instructional design of the orientation modules. Development of the orientation modules was also hampered by the fact that this was a new venture for the Vitalité Health Network, which lacked experts on instructional design and e-learning. For the same reason, the content experts lacked knowledge about the web design process.

Given the number of parties involved in the project, more regular meetings and more consistent communication would have improved adherence to work plans and deadlines.

As well, the first group of new nurses to use the online modules faced technical difficulties. Some did not have computers at home, and often home and work computers did not have the necessary Java software to run the modules. There weren't enough computers available at the hospital to allow learners to complete the online orientation. It would have been beneficial to have laptop computers available for the new incoming nurses.

Content editing that should have started after the instructional design of the modules was instead done at the end of the project by the translation services of the Vitalité Health Network.

Enhancing senior nurses' mentoring skills

A subcommittee was created to be responsible for content, presentation and revision of the mentor training. Five members from that committee – one senior nurse, one nurse with mentorship experience, the mentorship program coordinator, one professor from the Université de Moncton and the research project coordinator – comprised the training team. The team conducted three-day mentorship training sessions: two in December 2009, one in April–May 2010 and one in November 2010. The mentors had access to the online orientation given to the new recruits they were mentoring. Support was offered to the

mentors in the form of follow-ups by the mentorship program coordinator, the involvement of managers in the pairing of mentor and new recruit, sharing among mentors within the unit and emails. As well, there were discussion forums during the mentorship training and another in May 2010.

Challenges

The H1N1 influenza in fall 2009 and the pressures on staffing that it created made it difficult to replace nurses who wanted time off work to receive mentorship training. The mentorship training was originally planned to be five days long, but had to be reviewed and modified to be given in three days in order to make training more accessible to nurses during periods when it was difficult to replace them at work. In the post-orientation period, work schedules sometimes made it difficult for mentors to meet with their protégés. Mentors would have preferred a reduced patient workload at the start of the mentoring, to be increased gradually as the protégé adapted to the unit.

Outcomes

A total of 30 orientation modules were created as resources that can be adapted to the needs of each nursing unit and accessed online. This new approach to orientation is more efficient than the more traditional classroom model – new recruits don't need to wait for the hospital's next orientation cycle, and nurses can also go back to the modules as a reference source. This web-based approach to orientation meets the needs of the new generation of nurses and was received positively by them. Sixty recruits used the programs over the life of the project.

Mentorship literature and guides were produced in French. The French materials serve as a valuable resource for francophone nurses across the country.

A mentor training program was developed, and 28 nurses were trained as mentors during a three-day workshop. The workshop was offered four times over the life of the project. Some of those nurse mentors showed leadership qualities and, as a result, shifted into new positions in the hospital sector. Mentors mentioned their desire to have more opportunities for professional development.

Both the online orientation program and the mentorship program are being extended to licensed practical nurses.

Lessons Learned

- It would have been better to hire the project coordinator on a full-time, rather than a part-time, basis.

- The provision of replacement personnel would have enabled more nurses to participate in the mentorship workshops and discussion forums. Both mentors and protégés mentioned the difficulty they had finding time to meet, especially if they worked different shifts. Having more trained mentors in each unit would go a long way towards improving the situation.
- The project would have benefited from more communication at various levels and stages. More debriefing sessions for unit managers to describe and explain the two components of the project would have helped their understanding; the importance to the project of their support and collaboration could have been stressed. The mentors would have benefited from more meetings and discussion forums to give them support and advice, and to share tools.
- Editing of the modules should have been part of the agreement from the start.

Sustainability and Transferability

The mentorship training continued throughout 2011, and in spring 2011 it was offered to licensed practical nurses. Discussions are taking place regionally about establishing a uniform mentorship training with the possibility of adapting the number of days of training according to the resources available.

The heads of the education departments from other health zones in the province have expressed interest in the orientation modules. A work group is examining the possibility of creating an infrastructure to allow contents to be shared.

The evaluation results from the project will contribute to research on orientation and mentorship programs and could help inform future endeavours.

The content of the online orientation modules and of the mentorship training can be applied in other health establishments in the province and elsewhere.

Notes

1. Vitalité Health Network – Zone 1 includes the city of Moncton and the surrounding area. There are four zones in this network and two health networks in the province.

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RESEARCH TO ACTION

Skills Upgrading Projects

Introduction

According to the Canadian Nurses Association, Canada's nursing shortage could reach as high as 60,000 full-time equivalents by 2022 (Tomblin Murphy et al. 2009). Retention and recruitment are known to be particularly difficult in rural and remote settings (Forbes and Edge 2009), and the health of Canadians in these settings is worse than average (CIHI 2006).

The nursing literature suggests that skills upgrading and professional development opportunities can help alleviate nurse burnout and thus promote retention (Ferguson-Paré et al. 2002; Messmer et al. 1995). Nurses who are satisfied at their workplace are likely to stay on the job, and development opportunities promote job satisfaction (Ingersoll et al. 2002; Lowe 2002; O'Brien-Pallas et al. 2001).

Skills upgrading is particularly advantageous for rural and remote communities, where a limited number of nurses are often called upon to provide a wide range of specialized care (Tarlier and Browne 2011). However, given their limited resources, many rural and remote communities are unable to provide specialized training.

Two of the *Research to Action* (RTA) pilot projects provided opportunities for skills upgrading. These projects aimed to provide a nursing workforce better equipped to meet the needs of the local population while also promoting job satisfaction and so retention and recruitment.

- The Prince Edward Island project began providing certification in critical care and emergency nursing on the island. Previously, nurses were forced to travel to Halifax for the 13- and 15-week programs. This arrangement was onerous for nurses and employers alike. Project partners believed that bringing the programs to the island would enhance the learning culture and promote high-quality practice environments.
- The Nunavut project brought clinical educators and experienced staff from the Ottawa Hospital and staff from the Ontario Critical Care Education Network (CRI) to deliver specialized courses and workshops that address six identified areas of need, such as the management of chronic disease. Newly trained nurses were also supported through a mentorship program.

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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.

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NUNAVUT

Building Nursing Capacity

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Abstract

Recruitment and retention issues associated with the growing nursing shortage in Canada are magnified in Nunavut, where the scope of nursing practice is much broader than in urban settings. The Qikiqtani General Hospital (QGH), a 35-bed hospital in Nunavut's capital, Iqaluit, was the home base for this multi-pronged pilot project that spanned 16 months to March 2011. The goals of the project included creating opportunities for front-line nurses to develop new clinical skills and knowledge and expand their competencies; offering enhanced critical care training relevant to the needs of nurses; and providing a smooth transition to entry to practice in a hospital setting for new graduate nurses.

An in-house mentorship program was developed, and contracts were made with three outside parties: the Critical Care Education Network (CRI), the Ottawa Hospital and the Perinatal Partnership Program of Eastern and Southeastern Ontario. A number of professional development opportunities were provided – for example, 26 nurses participated in the CRI's critical care training, and six nurses were trained as CRI trainers.

Overall, nurses were satisfied with the accessibility, delivery and applicability of the RTA education opportunities, and all nurses agreed that these opportunities increased their professional skills. A plan for the sustainability of the critical care portion of the Nunavut RTA project is currently in place, and the QGH is in the process of hiring a nurse educator for the hospital. This hiring will be a key piece to sustain the project initiatives. If the mentorship program is to continue, it will be essential to hire someone dedicated to the orientation of new graduates and new nurses.

Background

Recruitment and retention issues associated with the growing nursing shortage in Canada are magnified in Nunavut, because recruiting nurses to the Arctic is more difficult and nurses tend to migrate south in times of shortage.

The Nunavut Nursing Recruitment and Retention Strategy 2007–2012 noted the importance of providing further education and training to nurses currently in the workforce, and also of preparing Inuit for careers in nursing. The Nursing Strategy aims to increase retention of the existing workforce, reduce current vacancy rates, raise nurses' skill profiles and increase the number of Inuit in the nursing field.

Nunavut Arctic College provides a baccalaureate nursing program based in Iqaluit, but class sizes are small (e.g., five graduates in 2010) and most nurses must be recruited from outside Nunavut. This project took place at Qikiqtani General Hospital (QGH), a 35-bed hospital in Nunavut's capital, Iqaluit, which has a population of about 7,000.

The transition from student to practising nurse is difficult at the best of times, but this issue is exaggerated in the North, where the scope of nursing practice is much broader than in urban settings. At the QGH, nurses see patients of all ages in the three clinical areas: operating room, inpatient care and emergency. In this context, nurses must have an unusually broad range of competencies to care adequately for patients with a wide range of conditions. There has been concern that the resources available for orientation and mentoring were not adequate to provide a smooth transition from graduation to work for new graduates hired directly out of Nunavut Arctic College into QGH. Similarly, experienced nurses hired to work at the QGH generally don't have experience in all the areas where they are required to work as they must care across the lifespan. Nurses in Nunavut therefore need a broad range of knowledge and judgment for appropriate assessment and intervention for everything from minor medical concerns to critical care. This broad knowledge is necessary for safe practice, but fluctuations in patient acuity, a shortage of nurses, the remote location, financial restraints and a general lack of resources make it difficult for nurses to maintain and update this range of expertise.

Nurses have identified that the care provided to critically ill patients at QGH is a matter of particular concern. The hospital does not have an intensive care unit (ICU), although there are two beds that can accommodate critical care patients who are awaiting airline transfer to Ottawa. Nurses are expected to provide competent and safe care during this interim period, which can last four hours

or, depending mainly on weather conditions, longer. (Because of a new contract, the wait time for a medical evacuation was reduced considerably, to about one hour in good weather, near the end of the project.) But critically ill patients are infrequent at QGH and they can be neonates, children, adolescents or adults – a range that makes it difficult for nurses to gain adequate experience to develop competence in critical care.

This project was a collaboration between the Government of Nunavut, Nunavut Arctic College (NAC) and the Nunavut Employees Union (NEU) (there is no separate nurses' union in Nunavut). Representatives from these groups made up the project steering committee, which provided guidance and direction.

Objectives

The Nunavut pilot RTA project objectives were to

- maintain and develop opportunities for front-line nurses at the QGH to develop new clinical skills and knowledge and expand their competencies;
- provide enhanced critical care training relevant to the needs of nurses at the QGH;
- provide a smooth transition to entry to practice in a hospital setting for new graduate nurses;
- develop greater capacity for nursing leadership, professional development and support in Nunavut;
- build collaborative relationships and resource sharing among partners;
- increase retention and recruitment of nurses at QGH.

Overview: Design and Planning

This project spanned 16 months, from November 2009 to March 2011. A full-time project coordinator was hired and conducted informal one-to-one interviews with 35 of the approximately 40 nurse employees at QGH to gather information about the areas of professional development that they thought would be most useful to them. The top areas were critical care, palliative care, mental health and wound management. The project had three main components: (a) a mentorship program for new graduates, (b) enhanced critical care training and (c) ongoing professional development opportunities for nurses to improve their clinical and leadership skills.

Contracts were made with three outside parties. The Ottawa-based Critical Care Education Network (CRI) was hired to provide enhanced critical care training for QGH nurses. The CRI is a Canadian non-profit organization with a strong

track record of providing critical care training to nurses, physicians and other healthcare providers. A contract with the Ottawa Hospital (OH) allowed the use of clinical nurse educators from OH to provide clinical education on site and via video conferencing. Labour and delivery is a large area of care in QGH, and many staff identified the need for advanced training to care for at-risk newborns. The Perinatal Partnership Program of Eastern and Southeastern Ontario (now known as the Champlain Maternal Newborn Regional Program) was contracted to deliver the Acute Care of at-Risk Newborns (ACoRN) in QGH.

In addition to the project coordinator, other resources included nurse educators and a human resources specialist from OH, CRI and ACoRN consultants and a consulting firm to conduct the project evaluation. The Nunavut project was not included in the national RTA project evaluation because the project in Nunavut started much later than the other projects.

When the project was initiated, the QGH had no critical care policies and procedures. These had to be developed, because having them in place was a precondition for the training offered by CRI. This requirement had not been anticipated originally. Critical care resource manuals were purchased to support nurses in the implementation of new critical care knowledge and skills. These included the American Association of Critical Care Nurses' Procedure Manuals for both adult and pediatric patients, up-to-date drug guides and the pharmaceutical formulary from SickKids (The Hospital for Sick Children) in Toronto.

A simulation lab was required to carry out the critical care training and to allow nurses the tools to practise and maintain infrequently used critical care skills. To that end, the following equipment was purchased: low-fidelity adult and pediatric simulators, a chest auscultation simulator, wound care model, peritoneal dialysis model and an ostomy model.

Guides and resources for planning and implementing mentorship programs were purchased and, as a resource for mentors and protégés, the telementoring online resource of the Registered Nurses' Association of Ontario (RNAO) was also purchased. It was made available to all nurses at QGH. The RNAO's best practice guidelines were procured as a resource for nurses and to complement the in-services provided by OH.

A camcorder and a device to record video conferences were also obtained in order to record, for use by nurses who were unable to attend, both live in-service education sessions and those offered through video conferencing.

Implementation

Mentorship

A mentorship program was implemented to support new graduates through their transition to work. Eight experienced QGH nurses volunteered to participate and received on-site mentorship skills training; four attended a day-long workshop; and four, who were unable to attend, were later given a shortened orientation. A mentorship orientation manual was adapted from similar resources created for the Manitoba, New Brunswick and Nova Scotia RTA projects. Five new graduate nurses hired from Nunavut Arctic College were given the mentorship orientation and were subsequently mentored one-on-one throughout their six-month orientation period. Mentors attempted to meet with protégés for a minimum of one hour a week. Group mentoring was also incorporated into the program and took place approximately once a month. One mentor would meet with all new graduates during these sessions.

Enhanced critical care training

This training, by the Critical Care Education Network (CRI), was presented in a “train the trainer” format, allowing the QGH nurses the opportunity to learn to teach critical care concepts and procedures. Training was both hands-on and in a lecture format, and took place over three days. CRI provided continuing education modules, poster boards and videos to the nurse trainings in order to help nurses maintain their skills and knowledge.

Professional development opportunities

In-services

Staff nurses identified areas of need, and clinical nurse educators from OH offered education on site and through video conferencing. In-service workshops were held in palliative care, wound care, the back injury prevention program, change management and team building. A three-day on-site in-service on post-anesthesia care was provided for all operating room and recovery room nurses.

Work/study

Seven QGH nurses participated in work/study sessions at OH. The sessions lasted a week; areas of study included pre-operative education, new nurse orientation, critical care and care of palliative patients. The QGH nurses met with educators and nurses to observe, collect resources and see what resources/programs at OH could be used or adapted at QGH. The work/study trips to OH were restricted to experienced nurses instead of including recent graduates as had been planned, because the trips did not provide hands-on clinical skills experience.

Acute Care of the at-Risk Newborn (ACoRN)

The Perinatal Partnership Program of Eastern and Southeastern Ontario (now the Champlain Maternal Newborn Regional Program) brought the ACoRN course to QGH. ACoRN's 16-hour course teaches the concepts and basic skills of neonatal stabilization and, where necessary, preparation for transport to a referral facility. ACoRN was specifically designed to meet the needs of practitioners who may be faced with a baby who is at risk or ill.

Challenges

The mentoring program, originally to be an e-mentoring program using mentors from OH to be matched with new graduates and experienced nurses, was revised to be in-house. The project steering committee and front-line nurses decided it was better for QGH nurses to develop their own mentoring skills. The project coordinator and a human resources specialist from OH provided the orientation session for both mentors and protégés. However, the start of mentoring was delayed because of timing. New nursing graduates from Nunavut Arctic College began work in June and July 2010, during prime vacation time. Delays were also caused by job changes, conflicting schedules and poor initial matches.

The need to develop QGH critical care policies and procedures, before CRI training could start, led to extra costs and delays. The number of in-service education sessions (not including CRI training) had to be reduced because other education offerings, independent of the RTA project, led to education overload for nurses. As well, in-service distance learning was plagued by multiple technical difficulties, including power outages and bad telecommunication connections.

During the needs assessment process conducted by the project coordinator, nurses identified mental health as a field in which they wanted more training, but logistical issues arose when the territory's psychiatrist decided to provide mental health training outside the RTA project.

Outcomes

Five new graduates from Nunavut Arctic College were given supernumerary status (their positions were excess to the full staff complement on a unit) for the first six months of their employment. This status allowed them to participate more easily in the mentorship program and in education provided by the RTA project.

Critical care policies and procedures were developed at the QGH. Twenty-six nurses participated in the critical care training provided by CRI: six nurses were trained as "trainers" over a three-day course and the other 20 (including two

from Rankin Inlet) received a shortened one-day course that delivered the most needed knowledge and skills for critical care. The training provided critical thinking skills and practice in skills including in-line suctioning, central venous lines, arterial lines and hemodynamic monitoring. The simulation lab purchased through the RTA project supplied the material support required to maintain critical care skills. Less than a month after the QGH nurses were trained as trainers, they offered one-day-long critical care training sessions for 15 nurses.

Nurses indicated that the mentorship program and other aspects of the project helped improve the hospital's ability to facilitate the entry-to-practice transition for new graduates. Over the duration of the mentorship program, nurse satisfaction with new hires increased 11%.

Overall, nurses were satisfied with the accessibility, delivery and applicability of the RTA education opportunities, and all nurses agreed that these opportunities resulted in increased professional skills. The majority indicated that the professional development opportunities offered through the RTA project gave them additional professional supports and sources of expertise, and furthered their development of leadership and clinical skills. Many nurses felt that time constraints with the work/study component of the project (at OH) meant they did not have time to apply newly acquired skills in the course prior to taking them back to the work site.

The relationships between the Government of Nunavut, Nunavut Arctic College and the Nunavut Employees Union became more collaborative as the project progressed. This was the first time that several of these partners had the opportunity to work together on common issues in a formal manner.

Given the limited timeframe, it was not possible to measure the effects of the project on the retention and recruitment of nurses. Importantly, however, the project evaluation did show improvements along several measures of job satisfaction, an indicator that positively correlates with retention and recruitment (Tourangeau et al. 2006, O'Brien-Pallas et al. 2010, Geiter et al. 2011).

Lessons Learned

- The start-up time of a mentorship should be carefully chosen to avoid prime vacation time. Having more mentors than protégés also allows some flexibility in planning – if a pair does not work out, other mentors are available. As well, any keen mentors who are not matched can be used as group mentors to keep them engaged in the program.

- A lag time should be considered between the new-graduate employment start date and the start-up of the mentorship program. This will allow protégés time to identify challenges in the workplace that they can bring to their mentor. It is also suggested that a kick-off event begin the program to give both parties the chance to meet in an informal setting.
- Group mentoring allows new graduates to recognize that they are all in the same boat and talk about some of the similar issues they are facing. For those unsure of how to use a one-on-one mentor, the group mentoring option provided an alternative forum for discussing challenges and successes. It allowed them both peer support and a chance to bounce ideas off and receive feedback from an experienced nurse simultaneously.
- An education committee to coordinate all education at QGH would minimize scheduling difficulties. Such a committee should involve all healthcare professions so that they can work together to coordinate education on an annual basis. This would help prevent miscommunication and double-booking of educational events. As well, providing a list of educational opportunities to staff that is regularly updated may aid in making education a regular part of work.

Sustainability and Transferability

A plan for the sustainability of the critical care portion of the Nunavut RTA project is currently in place. Teaching notes and PowerPoint presentations are available to all six of the critical care trainers for use in ongoing teaching of co-workers at QGH, and the new simulation lab is available to all staff to keep critical care skills up to date. The development of policies, procedures and infusion guides ensures consistency in care of critically ill patients and provides an ongoing resource to nurses caring for critically ill patients. As well, a system has been put in place to support nurses during the implementation of new policies, procedures and infusion guides. If a critically ill patient is admitted to QGH when a critical care trainer is not on site, an on-call critical care trainer will be called in to support the nurse caring for the patient. This system will continue until nurses are comfortable with their new responsibilities in critical care.

QGH is in the process of hiring a nurse educator for the hospital, and this position will be a key piece to sustain the project initiatives. An educator is required for the regular provision of ongoing in-services and larger courses, such as Advanced Cardiac Life Support (ACLS), Paediatric Advanced Life Support (PALS) and Acute Care of the at-Risk Newborn (ACoRN).

If the mentorship program is to continue, it will be essential to hire someone dedicated to the orientation of new graduates and new nurses who can also

coordinate the mentorship program, match mentors and protégés and arrange group mentoring sessions. It would not be difficult for such a person to continue this initiative with the resources and capacity now in place. The QGH now has seven trained mentors who have had experience mentoring new graduates; there are also five recent graduates who have been through the mentorship program and may be willing to act as mentors to future graduates. The program has the potential to grow to incorporate community health centres and nursing students, and the potential exists to develop an e-mentoring program throughout Nunavut. This would be an innovative use of telehealth. It is also possible to build on the collaboration between the Nunavut Arctic College and the QGH and put in place a mentorship program for nursing students. Pairing students with a new graduate or new nurse would offer an opportunity to build leadership capacity at QGH and lend support to students exploring career possibilities in nursing.

The education component of this project has the potential to expand in Iqaluit and be adapted to other communities in Nunavut and, indeed, other rural, remote and isolated communities throughout Canada. The use of video conferencing technology is a simple way to bring education to rural and remote communities without huge cost.

The collaboration between the Nunavut Arctic College and the QGH has multiple implications for the future. The simulation lab purchased through the RTA project for QGH nurses is also a learning resource available for NAC nursing students in practicum placements at the hospital. Multiple in-services offered through the project were opened to nursing faculty at the NAC, and this allowed dialogue between faculty members and staff nurses that is contributing to a better understanding and relationship between academia and the front line, theory and practice.

Evaluation

Because the Nunavut project began after the other nine pilots, it was not included in the national RTA evaluation. A separate evaluation was undertaken that reviewed the range of course offerings, training hours, and reports from nurses, nurse managers and course instructors regarding the extent to which skills and knowledge were enhanced.

Many initiatives were still underway at the time of the evaluation. Some changes, such as shifting the organizational climate, require a longer timeframe to assess results. The impacts of mentoring programs are often assessed only after new hires have been employed for 18 months.

A framework for monitoring progress and evaluating impacts is in place. However, the full impact of the RTA in Nunavut could not be adequately assessed at the time of this evaluation. The project would need to operate and be evaluated after an additional 18 months to determine the sustainability and transferability of the achievements to date.

The evaluation found that the RTA in Nunavut successfully completed important work to achieve all six project objectives. It has left a lasting legacy in terms of a nursing workforce with enhanced skills and more confident nurses who are able to meet leadership challenges.

It has also provided the building blocks for creating an effective system of learning and professional development for Nunavut nurses. It has helped the organization to recognize what can be achieved with leadership, focus, a common set of objectives, adequate resources and a staff that is remarkably able to pull together as a team for patients, professional learning and the future of nursing.

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RESEARCH TO ACTION

Staffing Tool Projects

Introduction

Nurses from across the country, and from all health settings, are often overwhelmed by the number and acuity of their patients. In a recent survey of emergency department directors, for example, 82% of 158 directors reported a perception that overcrowding was a major source of stress for nurses (Bond et al. 2007). Not surprisingly, then, Canadian nurses have exceptionally high rates of overtime, sick time and absenteeism (CFNU 2011).

A wealth of studies document the effects of poor work environments on nurses (Lasota 2009; Greco et al. 2006; Laschinger 2004). Nurses in Canada and abroad report alarming rates of burnout (Lavoie-Tremblay et al. 2008; Poghosyan et al. 2010; McHugh et al. 2011), and nurses will leave their jobs if they are not satisfied with working conditions (O'Brien-Pallas et al. 2001; Aiken et al. 2002). A large Canadian study covering 181 nursing units in 10 provinces found a mean turnover rate of 19.9%, with an average cost of \$25,000 per nurse turnover (O'Brien-Pallas et al. 2008). Conversely, improved job satisfaction and a positive work environment correlate with improved retention and recruitment (McGillis Hall 2003; Tourangeau et al. 2006; O'Brien-Pallas et al. 2008; De Gieter et al. 2011).

Appropriate staffing levels play a large role in ensuring healthy work environments. Studies show that staffing below recommended standards is associated with increased risk of mortality (Needleman et al. 2011), whereas increased RN staffing is associated with lower mortality, decreased odds of pneumonia, unplanned extubation, respiratory failure, cardiac arrest, shorter length of stay and a lower risk of failure to rescue (Kane et al. 2007). Increasing staffing levels based on demand has also been linked to nurses reporting a significant increase in overall job satisfaction, particularly with adequacy of RN staff and time for patient education (Spetz 2008). Nurse autonomy has also been linked with job satisfaction. Nurses desire opportunities to provide further input on assessing patient acuity, changes in patient needs and staffing requirements (Kramer and Schmalenberg 2003; Laschinger et al. 2003).

Two of the *Research to Action* (RTA) pilot projects implemented staffing tools that aimed to help ensure appropriate staffing levels and enhance the role of nurses in staffing decisions. Their overall goal was to improve work environments, thereby reducing turnover and improving patient care.

- The Saskatchewan project implemented the Synergy Model staffing tool, which seeks to find the best fit between patient and nurse characteristics. The model allowed the bedside nurse, in consultation with management, to adjust nurse–patient ratios to reflect changes in the number or acuity of patients.
- The Ontario project studied the indicators that are required to assess the most effective level of staffing on an individual unit. The project allowed nurse leaders within practice settings to measure nursing work and make informed decisions about the appropriateness of staffing levels.

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SASKATCHEWAN

Improving Patient, Nursing and Organizational Outcomes Utilizing Formal Nurse–Patient Ratios

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Abstract

The issue of nurse-to-patient ratios has been of significant interest to nurses in Saskatchewan. A commitment to a nurse-to-patient pilot project was articulated in a letter of understanding in the 2005 to 2008 contract between the Saskatchewan Union of Nurses (SUN) and the Saskatchewan Association of Health Organizations. The SUN, the Saskatoon Health Region and the Saskatchewan Ministry of Health formed a partnership to engage in the pilot project, which lasted from November 2008 to March 2011. The project involved the creation of a flexible, dynamic and real-time staffing tool to inform day-to-day nurse staffing decisions on a hospital unit and was based on an adaptation of Curley's Synergy Model.

A medical unit at St. Paul's Hospital in Saskatoon was selected for implementation, and all front-line nursing staff as well as unit nursing leaders were involved. A project working group adapted the Synergy-based Patient Scoring Tool (PST), which had been utilized for a recent project in British Columbia, to its own patient population. In April 2010, nurses began assessing each patient on every shift with the goal of determining the most suitable care provider. Patient assignment became based on the holistic assessment of patient needs according to the PST results rather than "geography" (for example, one nurse assigned to a multi-bed unit regardless of the acuity/capability of patients in the unit). Whenever possible, staffing on the unit was increased according to tool calculations.

Positive impacts in patient outcomes began to be noted during the final data collection period for the project – nosocomial infection rates showed improvement, and the number of falls per patient-days decreased. As well, patient needs were made more visible through use of the PST, which created non-threatening opportunities for dialogue related to legislated scopes of practice. While longer timelines and larger sample size are needed to measure impacts on retention and recruitment of nurses, nurses in the project demonstrated increased engagement over the study period. The tools and processes developed in this project are adaptable to other patient populations and care settings.

Background

The issue of nurse-to-patient ratios has received a great deal of attention over the last decade and has been of significant interest to nurses in Saskatchewan. Owing to substantial cuts to funding and the subsequent restructuring of the healthcare system in both Canada and the United States during the 1990s, the number of registered nurse (RN) positions dwindled. In part, nursing resources were affected by a reduction of RN positions (Aiken et al. 1996; Seago et al. 2003), the replacement of RNs with less skilled care providers (Grando 1998; Jawad et al. 2003) and the move to redefine roles (Aiken et al. 2010). These conditions gave rise to significant patient safety issues and a call for higher nurse-to-patient ratios.

Establishing nurse-to-patient ratios has been controversial, but there has also been significant evidence to suggest that these support adequate nurse staffing, healthy practice environments and high-quality patient care. A number of studies reflect associations between hospital nurse staffing characteristics, that is, nurse-to-patient ratios, nursing hours per patient-day, RN level of education vis-à-vis individual patient outcomes and nurse-reported quality of patient care (Aiken et al. 2000, 2002, 2003; Blegen et al. 1998; Hugonnet et al. 2004; Lichtig et al. 1999; Needleman et al. 2002, 2006; Whitman et al. 2002). Research carried out by the Agency for Healthcare Research and Quality demonstrated an inverse relationship between nurse-to-patient ratio and poorer patient outcomes (AHRQ 2004).

During the 2005 contract negotiations between the Saskatchewan Union of Nurses (SUN) and the Saskatchewan Association of Health Organizations, SUN proposed inclusion of nurse-to-patient ratios within the collective agreement. Although this proposal was not fully endorsed, a letter of understanding in the 2005 to 2008 contract indicated commitment to a nurse-to-patient pilot project in Saskatchewan.

When Health Canada funding via the Canadian Federation of Nurses Unions (CFNU) became available, a proposal to examine nurse-to-patient ratios as a way to enhance retention and recruitment of nurses was accepted. An agreement between the CFNU and the Saskatoon Health Region was signed in early 2009.

The unit selected for implementation of the proposal was a medicine unit at St. Paul's Hospital in Saskatoon. This general medicine unit has baseline staffing for 42 beds, but has 46 beds available for patients on the units. There are six close observation beds with cardiac monitoring capabilities. The decision to use this unit was based on criteria developed by the provincial steering committee in consultation with the Saskatoon Health Region's senior leadership team. The unit had been difficult to staff; there were several vacant RN positions at the start of the project, and the team had a relatively high turnover rate, in part because general medicine units are viewed as career entry points for nurses, with turnover of nursing staff expected.

Objectives

The objectives of the project were to

- improve patient outcomes, including patient safety and satisfaction;
- maximize nursing and organizational outcomes, including enhancing retention and recruitment of nurses;
- assess the day-to-day adequacy of staffing within an individual unit;
- provide opportunities for nurses to utilize their professional judgment in determining appropriate formal nurse-to-patient ratios for their unit;
- provide opportunities for nurses to work to their full competence, with the goal of maximizing their scope of practice;
- improve the work environment and create a magnet environment;
- create and test a process whereby nurses at the point of care fully participate in developing and implementing formal nurse-to-patient ratios on a unit;
- establish a mechanism to ensure that formal nurse-to-patient ratios can be maintained and adjusted as required when patient needs or demands for service alter; and
- add to the body of knowledge on the impact of nurse-to-patient ratios.

The project was centred around the identification and implementation of a flexible, dynamic and live staffing tool to inform day-to-day nurse staffing decisions on a hospital unit based on an adaptation of the Synergy Model (Curley 1998, 2007). The Synergy staffing plan takes into consideration eight patient characteristics and allows nurses to consider the impact of patient needs on workload,

and to plan care and professional nursing resources accordingly. The model creates a real-time communication tool for handovers and shift-to-shift reports.

Overview: Design and Planning

The project coordinator was hired for the period April 2009 to March 2011 to coordinate work at the provincial and national levels. The project lasted from November 2008 to March 2011, with the involvement of nursing staff on the unit beginning in September 2009. Between September and December 2009, baseline patient and staff data were collected, and the nursing leadership on the unit was oriented to the project. In December 2009, the nurses on the unit were introduced to details about the Synergy Model as the basis for the Patient Scoring Tool (PST). The academic lead for the above-mentioned project in British Columbia came to Saskatoon and took part in orienting the staff. An understanding of the eight universal patient characteristics – stability, vulnerability, predictability, complexity, resiliency, participation in care, participation in decision-making and resources – is considered essential to permit a full assessment of the holistic care needs of patients. Once nursing staff were familiar with these characteristics, they were able to adapt the Synergy-based PST that had been utilized in the British Columbia Nurses Union Workforce Project (McPhee et al. 2010).

Over the next few months the project working group, composed of front-line RNs and unit leaders, formulated descriptors specific to their patient population to illustrate the patient characteristics. The provincial steering committee decided to refrain from including assessment of the “nurse characteristics” side of the Synergy Model. This decision was due to the project’s short timeframe. A proxy in place of the characteristics was used that included licensure status, years of service on the unit and special training.

Beginning in April 2010, the nurses began to assess each patient on every shift using the PST and to calculate an overall score. The unit used a 12-hour staffing pattern and scoring done each shift to capture any changes in patients’ conditions. They would then inform staffing for subsequent shifts. Feedback to the project working group and midterm evaluations indicated some concerns related to patient scoring. As a result, the working group revised the tool in order to increase the accuracy of patient scores.

In May 2010, a clinical resource nurse was added to the project to support after-hours work, helping to implement the PST and staffing calculation tool use, facilitating staffing adjustments and providing a clinical resource for the many newly graduated nurses hired to the implementation unit. The unit’s white-

board, where patient assignments were posted, was upgraded to include colour-coded magnets displaying PST scores to facilitate recognition of areas of greatest patient need.

Implementation

The project involved all the front-line RN staff on the unit (35 permanent RNs, six float pool RNs and casual RN staff) as well as the unit nursing leaders (the manager of nursing, clinical nurse educator, clinical nurse specialist and the clinical coordinator). While initial plans focused on RNs, it became apparent that the nurse providing primary nursing care for the patient could most optimally identify and score patient needs. Thus, about 15 licensed practical nurses (LPNs) were included in the project's work.

The project working group met approximately every two weeks to discuss issues related to the tool itself, its implementation and the ongoing operations of the project. The five front-line RNs and two LPNs in the working group played a significant role in working group activities, became the project “champions” and provided communication links to other front-line staff.

The nurses began, in April 2010, to assess each patient on every shift using the PST. Several nurses would score the same patient and discuss their scoring as a way of learning and developing consistent scoring practices. Their feedback led to the inclusion of categories and scores for patient acuity and capability. These revisions provided a clearer picture of patient needs and helped nurses determine the most suitable care provider. RNs were assigned to patients with higher acuity needs (less stability and predictability; more complexity and vulnerability) or those with complex care planning or extensive education needs to increase self-care capabilities. An overall or average score continued to be calculated.

The development process for the tool was time intensive, as it required RN and LPN education, pilot use of the PST and staff feedback on it, revisions of the PST and re-education several times. During this time, patient assignment processes were also examined. The historical assignment of patients by geography (for example, one nurse assigned to all patients in a multi-bed room regardless of acuity/capability) was questioned, and the skill and knowledge sets associated with legislated scope of practice and Saskatoon Health Region policies related to scopes of practice were reviewed. As a result, patient assignment became based on the holistic assessment of patient needs according to PST results, with assignment to an RN or LPN to better match care provision with patient need.

Linking the overall score on the PST to nursing numbers (nurse-to-patient ratio) was the second step of the process. Initially, the overall PST score was used to identify the nursing “team” or unit area with the highest patient needs, and additional RN staff were brought and assigned to patients on this team. However, as the number of patients on each team was not equal and the unit frequently ran over capacity by four patients, a method was developed to reflect patient volume and patient needs per PST assessment. The “amount of nurse” per patient calculation was developed with the staffing calculation tool. The calculated number of nurses required was compared to the scheduled number of nurses, and staffing was adjusted accordingly. By the end of August 2010, the unit was able to operationalize the staffing calculation tool results to inform staffing numbers.

While RN FTEs were initially allocated to the project, complexities (as outlined under “Challenges,” below) arose and additional staff from existing sources (casuals, float pool, part-time and overtime) were required to adjust nurse-to-patient ratios as indicated by the tools and to provide release time for project-associated activities such as meetings and focus groups.

Challenges

The project experienced challenges with respect to timelines, small sample size, disease outbreaks, staff turnover and the delineation of roles and responsibilities. Initial project plans were for two implementation units and one comparator unit, but owing to other initiatives in the Saskatoon Health Region and restructuring, only one unit was able to pilot this project.

The H1N1 pandemic planning in fall 2009 led to delays in the project start-up, and an outbreak of gastrointestinal virus in early 2010 led to a unit quarantine that slowed implementation. Throughout the project, the unit frequently operated over capacity by four patients because of pressures on the system.

Originally, it was anticipated that additional staffing and budget would be added to the unit to support implementation as project needs dictated. Because of budget pressures the additional funds were pulled back, but staffing was increased according to tool calculations whenever possible. As a result, the unit’s staffing budget was in a negative variance, which was a concern for the manager.

During the initial stages of the project, the unit had a significant nursing vacancy rate, and 18 new RNs and 12 new LPNs were hired during the project’s term. Finding time to orient new staff to the project, and especially to the PST, was difficult. In addition, orientation of intermediate RN staff to the

unit's six close observation beds and charge nurse roles also presented challenges as they tried to fit PST and staffing calculations into their new roles. Float staff had to rely on the clinical resource nurse or other staff to complete the PST for their assigned patients.

RNs expressed concern regarding the junior/senior experience mix of nurses on the unit, especially in relation to having fewer experienced nurses to staff high-acuity areas and to provide clinical guidance in complex care situations. Nurse skill level was only roughly measured according to criteria of experience and scope of practice (RN/LPN). Although the tool did not inform RN/LPN skill mix, more acute patients were generally assigned to an RN.

Nurses commented on the need for supports for new staff to ensure patient safety and attention to holistic patient needs. It took several months to recruit an RN for the clinical resource nurse position on the project, primarily because it was a seven-month, full-time position of weekday evening shifts.

Leadership changes on the unit meant the clinical coordinator was the only member of the unit nursing leadership team who had continuity with unit staff. The provincial steering committee also underwent many changes of personnel during the project.

While the project was slated to start in December 2008, the provincial steering committee was unable to engage a local researcher until June 2009. Further delays resulted, as patient outcome baseline data needed to be collected before the implementation phase could begin. The objectives and methodology of the project were developed prior to contracting a researcher, resulting in some tension throughout the project related to objectives and implementation processes.

In spite of the aforementioned difficulties, the pilot unit succeeded in achieving staff buy-in, implemented the PST and studied its impact over several months. Nurses felt the PST provided them with a common language to discuss workload issues, and it increased nurse leadership by involving them in collaborative decision-making. The tool also helped match appropriate staff (RN or LPN) to patients, thereby increasing safety.

Outcomes

Positive impacts on patient outcomes were noted during the project timeframe, but these were not of statistical significance owing to the short implementation phase, low overall numbers of events and changes in data collection formats in

the Saskatoon Health Region during the RTA project timeframe. Nosocomial infection rates showed improvement, and number of falls per patient-days decreased slightly. Greater diligence in reporting medication incidents was also noted as a positive step in facilitating system improvement.

During the project, 18 new RNs and 12 new LPNs joined the unit in permanent and casual positions. Recruitment initiatives such as bursaries, changes in nursing job market and the RTA project may have influenced this influx of nurses, and the project may also have had some impact. While longer timelines and larger sample size are needed to fully reflect impacts on retention and recruitment of nurses, the increased engagement of nurses over the project study period was noted.

Use of the PST has changed how nurses think about patients, bringing patient needs to the forefront when decisions are made about care. Use of the Synergy Model as the foundation for patient assessment demonstrates the ability to link nursing theory to front-line practice and to develop tools, such as the PST, that are grounded in theory. Use of the PST for staffing calculations is a significant step in the development of real-time, dynamic nurse-to-patient ratios driven by patient need. This foundational work adds important Canadian evidence about nurse-to-patient ratios.

The PST allowed front-line nurses to show leadership and to bring their professional skills and judgment to bear when determining nurse-to-patient ratios. It allowed nurses to track changes in workload and available staffing, and to use this information as a basis for staffing decisions.

Having patient needs made more visible through use of the PST created non-threatening opportunities for dialogue related to legislated scopes of practice. RNs identified the need for ongoing work to further clarify their responsibilities in daily practice and advance their roles in relation to patient advocacy, teaching and discharge planning, and team leadership. LPNs reported increased ability to provide holistic care for patients delegated to them. Use of the PST helped ensure they could provide all aspects of care within their scope of practice.

Research on RN competencies – related to critical analysis and problem-solving capabilities, assessment and diagnosis, appropriate and timely interventions, planning and leadership skills – demonstrates a direct relationship between these competencies and improved patient outcomes (Aiken et al. 2011; Wong

and Cummings 2007; Burnes Bolton et al. 2007). Further studies have shown that the value added in cost avoidance and cost savings related to both patient and nurse outcomes (i.e., length of stay, readmission rates, turnover) has the potential to offset the investment costs of hiring additional RN staff (Shamliyan et al. 2009; Dall et al. 2009; Needleman et al. 2011). While more research in this area is necessary, this project helped inform the importance of RNs and differentiate the scopes of practice of RNs and LPNs.

Nurses engaged in the project, especially those participating in working group activities, benefited by learning and experiencing roles as unit leaders and change agents. All nurses on the unit had exposure to “research” in a participatory action methodology and saw at first-hand how change takes place within the plan–do–study–act cycle. These learnings can be applied to other initiatives. Problem solving, collaboration and leadership capacities within nursing staff have been discovered and strengthened.

Lessons Learned

- Involvement of front-line RNs and LPNs in the development and evaluation of the PST and the staffing calculation tool was an essential factor in staff buy-in to the project.
- Nurses support the concept of a dynamic nurse-to-patient ratio based on patient need as assessed by their professional judgment.
- Having each nurse complete PST assessments for her or his assigned patients promotes critical thinking and a collaborative decision-making process for staffing with input by all RNs and LPNs.

Sustainability and Transferability

The long-term sustainability of the PST requires continued engagement of the unit working group to further revise it and the staffing calculation tool for ease of use and for some validity and reliability testing. As well, options to automate the tools should be investigated, ensuring that staff are engaged in the development and design of the program. Further, more robust evidence should be developed to prove that the application of a flexible, dynamic nurse-to-patient ratio grounded in patient need does lead to improvements in patient, nursing and organizational outcomes.

The employer will explore opportunities (most specifically, funding and human resources) that will allow continued use of the staffing tool for a period of time after the formal project has ended. During this time, the tools and their application would be refined and evaluation continued in terms of patient, nursing and

organizational outcomes. It is expected that the Saskatoon Health Region will not support the costs involved in maintenance or spread of this model if significant outcomes are not demonstrated.

The tools and processes developed in this project are adaptable to other patient populations and care settings. The Synergy Model was used as the foundation for the PST and correlated to nurse-to-patient ratios. The model could be further utilized as the foundation for care planning, orientation curriculum and risk management planning.

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ONTARIO

Linking Nursing Outcomes, Workload and Staffing Decisions in the Workplace: The Dashboard Project

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Abstract

Research shows that nurses want to provide more input into assessing patient acuity, changes in patient needs and staffing requirements. The Dashboard Project involved the further development and application of an electronic monitoring tool that offers a single source of nursing, patient and organizational information. It is designed to help inform nurse staffing decisions within a hospital setting. The Dashboard access link was installed in computers in eight nursing units within the Hamilton Health Sciences (HHS) network. The Dashboard indicators are populated from existing information/patient databases within the Decision Support Department at HHS. Committees composed of the unit manager, staff nurses, project coordinator, financial controller and an information controller met regularly to review the Dashboard indicators. Participants discussed the ability of the indicators to reflect their patients' needs and the feasibility of using the indicators to inform their clinical staffing plans.

Project findings suggest that the Dashboard is a work in progress. Many of the indicators that had originally been incorporated were refined and will continue to be revised based on suggestions from project participants and further testing across HHS. Participants suggested the need for additional data, such as the time that nurses are off the unit (for code blue response, patient transfers and accompanying patients for tests); internal transfers/bed moves to accommodate patient-specific issues and particularly to address infection control issues; deaths

and specific unit-centred data in addition to the generic indicators. The collaborative nature of the project enabled staff nurses and management to work together on a matter of high importance to both, providing valuable recommendations for shared nursing and interprofessional planning, further Dashboard development and project management.

Background

Research shows that nurses want to provide more input into assessing patient acuity, changes in patient needs and staffing requirements (Kramer and Schmalenberg 2003, Laschinger et al. 2003). This Hamilton pilot project was developed out of a series of Ontario government studies and earlier pilot projects regarding nurse staffing and workload issues. A 2007 Ontario report, *Measuring Nursing Work in Ontario*, prepared by the Nursing Workload Task Committee, which was established by the Ontario Nursing Secretariat (part of the Ontario Ministry of Health and Long-Term Care [MOHLTC]), found that there is no consensus on how to define or measure the work of nursing. The report also noted that many complex factors must be considered in determining patient requirements.

Further, the report found that maintaining consistency is difficult within the various complex systems and with the frequency of change in processes and technology. The report concluded that what was needed was an approach to staffing plans that can adjust to a changing environment and changing circumstances.

The report suggested that staffing plans should

- be developed at the organization and unit levels in consultation with front-line nurses using a shared governance model;
- provide options for nurses when staffing arrangements are inadequate;
- identify expected nurse–patient ratios, skill requirements, scopes of practice, staffing models and resources required for quality of care;
- recognize the complexity involved with the appropriate matching of nurses' and other care providers' skills, education and experience with patients' needs; and
- be created by individuals trained for and capable of making these complex decisions.

The report noted that there were information gaps in the existing frameworks used to determine staffing levels – gaps such as patient outcome information – and recommended that provincial demonstration projects be supported to address the gaps.

Hamilton Health Sciences (HHS) was one of several Ontario pilot project sites that had been engaged in constructing their individual Dashboards. It had participated in provincial studies and had also undertaken its own initiative to support evidence-based internal resource allocation and to more accurately reflect the true costs of providing care, rather than just average or expected costs per patient. HHS had also initiated the development and implementation of formal clinical staffing plans. The development of dashboards and staffing plans relied on previous work, as well as a wealth of academic research (Donaldson et al. 2005, Doran 2003, Egan 2006, Junttila et al. 2007, Lowe and Baker 1997, Mazzella-Ebstein and Saddul 2004, Park and Huber 2007, Rosow et al. 2003, Saint-Eloi et al. 2005, Urden 1996, Whitman et al. 2001, Fitzpatrick 2002, Mills and Walters 2006, O'Brien-Pallas et al. 2002, Sangster 2007).

Hamilton Health Sciences, the Ontario Nurses' Association (ONA) and the Ontario MOHLTC Nursing Secretariat developed a project to complement the various Ontario studies and initiatives. The project involved the development and application of a tool called the Nursing Dashboard – a single source of nursing, patient and organizational information to facilitate data-driven decisions about the appropriate staffing for nursing care. The tool aimed to use common, agreed-upon indicators that could be applied across different sectors and settings. The construction of this tailor-made software application began in 2008 under a provincial nursing workload demonstration project supported by the Ontario MOHLTC's Nursing Secretariat.

This project, Linking Nursing Outcomes, Workload and Staffing Decisions, responded directly to the recommendation for a pilot demonstration project to determine what indicators were needed and useful to assess the level of staffing on an individual unit required to provide high-quality patient care. This project builds on and enhances initiatives already underway in the province. Importantly, it integrates front-line nurses into these activities.

The project involves staff nurses in collaboration with managers, and finance and information controllers, in the ongoing construction and pilot use of a central repository for information relevant to understanding the nursing workforce, nursing work and nursing/patient/organizational outcomes, and in considering nursing staffing decisions.

Objectives

This project further aimed to support and evaluate a Nursing Dashboard of evidence-based indicators. The goal was to determine the indicators that best

support nurse leaders at the unit, organizational and provincial levels to measure nursing work and make informed decisions regarding nursing staff requirements. Additionally, the project aimed to provide opportunities for nurses to be involved in assessing their workload to gain a better understanding of the multiple factors affecting nursing workload and to create a comprehensive approach to support nursing human resources decisions.

More specific objectives were to assess the validity and feasibility (involvement, burden and receptivity for nurses, managers, controllers and the organization in collecting and using the indicator data) of the Nursing Dashboard and to describe

- the frequency with which data needed to be collected and reviewed to provide useful information;
- the degree of completeness and accuracy of the Dashboard indicator data;
- the usefulness of the Dashboard data in supporting nursing staffing and workload decisions;
- the potential for the Nursing Dashboard to be used in other clinical areas beyond the pilot units; and
- the direct costs associated with recording, abstracting and linking indicator data, reviewing the data and the educational time required to use the data.

Overview: Design and Planning

The building of the central repository, a tailor-made software application called the Dashboard, began in 2008 under a provincial Nursing Workload Demonstration Project. The term “dashboard” is meant to draw a comparison with the dashboard in a vehicle, particularly with the control panel that provides drivers with a snapshot on important variables such as supply of gas, temperature, speed when travelling and so on. In this case, input information includes characteristics of patients, nurses and the system; throughput information consists of nursing care processes and environmental complexity; and outputs are patient, nurse and system outcomes. The concept behind the program is that elements in each section of the model that characterize the patient population, the nursing staff and the system (unit, organization or both), when combined with nursing processes and other complexities in the environment, contribute to important organizational outcomes.

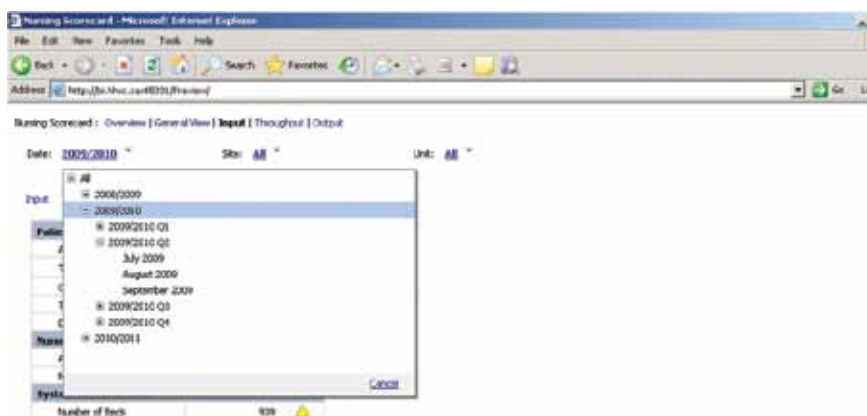
Depending on the service or program, patients are characterized by various indicators, such as age, gender and medical diagnosis, which are important in identifying or summarizing their health status and needs for care. The attributes that characterize nurses include age, experience, education, skills and knowledge.

There should be a match between nurse characteristics and the care needs of the patients. The system for that care would reflect the patient and workload metrics, staff hours and skill mix. The context, processes and complexities of care and the ensuing outcomes for patients, nurses and the system (unit, organization and beyond) are then fed back for explanatory evaluation, education or program and staffing planning.

The Dashboard stores historic data and incorporates a drop-down menu so that users can access specific data for defined periods of time (Figure 1). Additional features on the HHS Dashboard include a monitor unit and system items that permit benchmarking, and a green-yellow-red system of symbols to indicate when key data were at acceptable corporate levels, at a cautionary level or at a level well above or below usual or anticipated targets (Figures 2 and 3).

Figure 1.

Time parameter drop-down menu for Dashboard data



An Ontario project management committee composed of representatives from HHS, the ONA and the Nursing Secretariat of the MOHLTC led this project. A full-time project coordinator (with part-time clerical support) was engaged to work with the committee and was accountable for the day-to-day management of the project and coordination of the work plan activities.

Figure 2. Full Dashboard data set, all sites

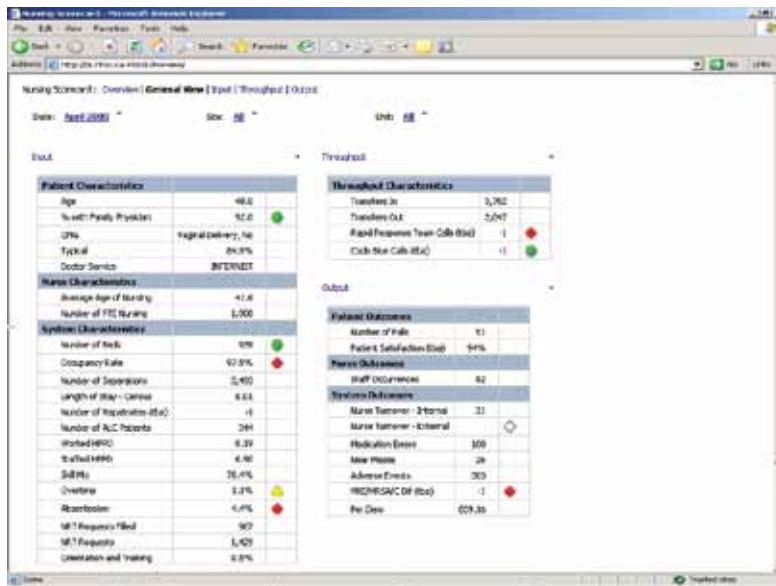
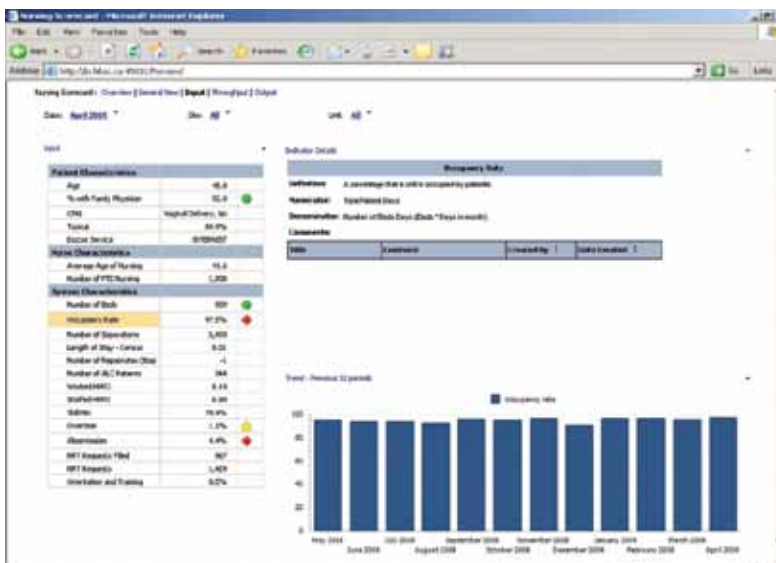


Figure 3. Graphic output of Dashboard data



The work plan for the 18-month project included three broad phases: project planning, implementation and project evaluation. The project began in November 2008 and the Dashboard was finalized in December 2008. Meetings for planning and evaluation began in spring 2009. The project received ethics approval from the HHS Institutional Research Ethics Board on April 21, 2009.

Initially, 10 nursing units were recruited from the clinical areas within the hospital sites to pilot the Dashboard. From the 10 pilot units, eight units from a variety of clinical settings across three HHS sites participated in the project. Nursing units included an emergency department, neonatal intensive care unit, cardiac care unit, cardiology in-patient unit, surgical orthopaedic and oncology units and medical units. Dashboard committees were struck at the eight participating HHS nursing units – five units at the Juravinski Hospital (previously Henderson General Hospital), two at Hamilton General Hospital and one at McMaster University Medical Centre. The committees were composed of the unit manager, staff nurses, a financial controller and an information controller. The two controllers, who also serve other departments and programs, joined the committees as partners to contribute financial and decision support information and assistance. This also gave HHS the opportunity to have key individuals understand and assess the applicability of the Dashboard to other non-pilot units. Nursing staff participation for committee membership was solicited through individual, explanatory letters and the encouragement of the clinical manager and the project coordinator.

The project coordinator convened information sessions for the unit staff nurse representatives and the unit staff at large. Several strategies were used to engage and educate the staff. These included handouts on project information in a question-and-answer format, PowerPoint presentations and one-to-one consultation with the project coordinator.

Staff nurses were provided with additional resources for ready reference, such as a definition list of the indicators that appeared on the Dashboard, where indicators were organized under the input, throughput and output elements of the Patient Care Delivery Model. Once committee members were in place, they were encouraged to discuss the project with peers. However, for the purposes of the project, the direct use or review of the Dashboard itself was limited to those on the unit committees. Hands-on training on the Nursing Dashboard was organized for the clinical managers, staff nurses, financial and information controllers and program directors involved in the project.

Implementation

A total of 21 staff nurses, most of whom had not been involved in the initial construction of the tool and the selection of indicators, participated in the Dashboard Project at the eight HHS pilot units alongside seven unit managers, three financial controllers and three information controllers (the controllers served multiple units).

Dashboard users signed an agreement in which they agreed (among other terms) they would use the information on the Dashboard only “for the purpose of the evaluation of the Nursing Dashboard on my clinical unit.” The Dashboard could be accessed from any computer on the unit, providing managers and nurses with an overall picture of their unit’s situation. Nurses and managers reviewed the Dashboard to ensure that the indicators were representative, to discuss changes occurring within the clinical unit and to determine whether the Dashboard could be made more helpful or accessible. Monthly reviews of the Nursing Dashboard indicators were conducted using a standard data collection tool developed by the Decision Support Department at HHS. Between July 2009 and February 2010, a total of 46 Dashboard review meetings were convened, at which the project units engaged in the monthly reviews of the indicators. Participants discussed the apparent accuracy of the indicators in reflecting their patients’ needs and the feasibility of using these indicators to inform their staffing plans (i.e., they provided input into the utility of the indicators in the Dashboard).

Project participants generally utilized the Dashboard through the regular monthly meetings with the manager and financial/information controllers. These meetings initially served to educate the nurses regarding the indicators being utilized and how these described the activity and patient outcomes within their clinical unit. The nurses contributed to these meetings by “telling and describing the patient stories” that in fact drove the indicator data.

Evaluation

A descriptive, exploratory design was employed to evaluate participant opinions on participant involvement and the attributes of the Dashboard. An opinion questionnaire was developed, and six focus group sessions were held, using an external consultant (facilitation/analysis). A content analysis approach was used to analyze the qualitative data.

Questionnaire data affirmed that the Dashboard was quite easy to use, and that selected indicators would benefit from further development to reflect the actual

volume and intensity of nursing work. Focus group analysis affirmed the quantitative findings and revealed two predominant themes: that the Dashboard is a work in progress and that nurses' voices add value.

Challenges

Nurses were initially skeptical about the purpose of the project, suspecting that the Dashboard might be used to justify nursing staff reductions. For some, it felt like one more project in a climate where things are constantly changing. As well, some nurses were not comfortable or experienced in using the computers, and it took time to become familiar with the terminology and acronyms used in the Dashboard.

Some nurse participants had thought that the Dashboard would be useful to acquire staff for immediate needs. The tool, however, does not provide "real time" data and is not intended to inform day-to-day staffing, but rather to use historical data to provide evidence for projections about future staffing requirements.

Scheduling regular Dashboard review meetings and achieving full engagement of nursing staff were ongoing challenges throughout the course of the project. Nursing shortages, in spite of backfill, and general workload issues were noted as key challenges affecting nurses' ability to leave the unit for Dashboard review meetings. In addition, unanticipated bed closures resulting from budget constraints meant that units had to revise their staffing models, and this had a negative impact on nursing staff morale and engagement in the project.

Other challenges encountered over the course of implementation included leadership changes in one project unit; an outbreak of Norwalk virus on one of the participating units; roll-out of revisions to the existing workload tool at one site (in March 2009), which affected the project units at that site; and the impact of H1N1 on both the organizational and clinical levels for time and resources.

Certain components of the Dashboard were not applicable to the Neonatal Intensive Care Unit where it was piloted, because the Dashboard is based on an adult population and the NICU had its own database. Additionally, its application to the Emergency Department had limitations, as it did not capture some relevant information about, for example, triage.

Outcomes

Participants gained an appreciation for the depth of knowledge needed to determine the appropriate numbers of staff for nursing units.

The Dashboard is a work in progress. Many of the indicators that had originally been established were refined and will be revised based on suggestions from project participants and tested across the HHS. Participants suggested the need for additional data, such the time that nurses are off the unit (for code blue, patient transfers and accompanying patients for tests); internal transfers/bed moves to accommodate patient-specific issues and particularly to address infection control issues; deaths and specific unit-centred data in addition to the generic indicators.

Probably the strongest aspect of the project was its collaborative nature, as staff nurses and management staff worked together on a matter of high importance to both, providing valuable recommendations for shared nursing and inter-professional planning, Dashboard development and project management.

The cost for education on the Dashboard at the unit level was estimated at \$14,760, while training costs for directors, controllers, managers and Office of Professional Medical Conduct representatives was estimated at an additional \$6,310. Owing to the limited project time, it was not possible to develop effective measures to estimate other costs associated with Dashboard use.

Lessons Learned

- The purpose of the Dashboard should be made clear, especially among the front-line staff, to avoid misconceptions. Communication about the project, its value and relevance should be active and ongoing from the outset, especially with regard to its main use for trending, tracking and projections rather than day-to-day staffing.
- The Dashboard is a learning tool for new managers, staff and students. As such, effective strategies for collaborative education are warranted.
- It is important to acknowledge and appreciate that staff nurses may have different levels of interest and computer skills. Similarly, they may not have knowledge of management terms, acronyms or facility with computers. Education takes time and patience.
- The financial and information controllers are important partners in the unit committees.
- Any single change in the Dashboard involves multiple levels of discussion and activity, and these take time.
- Project development should be ongoing in order to sustain impetus and energy, as well as to give staff confidence that their involvement in pilot work has long-term value.
- For certain data sets, such as workload and incidents, the data are only as

accurate as the frequency of rating or recording. Compliance in entering data and in recording/reporting incidents varies, depending on several nurse or unit factors.

- Determining staff complements goes beyond patient volume projections. This project demonstrated the value of collaborative work while building a practical tool for data-based nursing staffing decisions.

Sustainability and Transferability

HHS intends to continue to build, use and sustain the Dashboard in the pilot units and extend this tool to other units. The plan is to use the Dashboard to support quality initiative of Hamilton Health Sciences. It is intended that it will become embedded within HHS Quality Framework.

The Dashboard approach may be useful in other sectors, such as long-term care, public health and community services, and to other professions, departments and professional teams. Forecasting staffing targets, skill mix and the need for nurses (and their interprofessional partners) with other scopes of practice, skills and experience is equally applicable. The need for shared decision-making is no less important in non-acute care settings. However, participants have cautioned that while the Dashboard may be very valuable to smaller organizations, robust IT (information technology) capacity and infrastructure must be in place.

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RESEARCH TO ACTION

Evaluation Project

Introduction

Nurse retention and recruitment strategies are essential to the continued viability of the nursing workforce and healthcare delivery in Canada (Tomblin Murphy et al. 2009). The health system risks an exodus of knowledgeable, experienced nurses at a critical time. In 2009, the most recent year for which data are available, the average age of the Canadian registered nurse reached its highest measured level, 45.2 years, an increase of 0.5 years since 2005 (CIHI 2010). The presence of older, experienced nurses in the workforce can facilitate the integration of younger, inexperienced nurses. If greater numbers of senior nurses retire, health organizations will lose a tremendous source of knowledge and expertise.

A Health Canada-funded study undertaken by the Canadian Federation of Nurses Unions found that many new graduates feel unprepared for the work environment and overwhelmed by the demands on them as they begin their career (Wortsman and Janowitz 2006). Better orientation and mentoring by experienced nurses were identified as key to assisting new graduates in their transition and integration into the workplace. The majority of senior nurses reported that flexible scheduling arrangements would greatly influence their decision to delay retirement and continue working. These findings echo the polling results of nurse union members, who have consistently identified retention and recruitment initiatives as a bargaining priority over the past several years.

While the nursing shortage is widely recognized, there is still little evidence regarding the effective implementation of retention and recruitment strategies. Given the magnitude of the challenge, and the resources required for retention and recruitment strategies, it is imperative that we be able to measure their effectiveness and identify best practices.

The Alberta *Research to Action* project involved an evaluation of seven retention and recruitment initiatives contained in the 2001 and 2007 collective agreements between Alberta Health Services and the United Nurses of Alberta. These province-wide initiatives include an entry-level program (Transitional Graduate Nurse Recruitment Program), flexible work arrangements (Weekend Worker, Flexible Part-Time, Seasonal Part-Time and Benefit-Eligible Casual Employee) and pre-retirement programs (Retirement Preparation and

Pre-Retirement FTE Reduction). At the time of the project, over 1,600 nurses had participated in the seven initiatives.

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ALBERTA

Evaluation of Nursing Retention and Recruitment Programs

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Abstract

Retention and recruitment strategies are essential to address nursing workforce supply and ensure the viability of healthcare delivery in Canada. Knowledge transfer between experienced nurses and those new to the profession is also a focus for concern. The Multi-Employer/United Nurses of Alberta Joint Committee attempted to address these issues by introducing a number of retention and recruitment (R&R) initiatives for nurses in Alberta: in total, seven different programs that were introduced to some 24,000 nurses and employers across the province of Alberta in 2001 (the Transitional Graduate Nurse Recruitment Program) and 2007 (the remaining six R&R programs). Approximately 1,600 nurses participated in the seven programs

between 2001 and 2009. Of the seven strategies, one supported entry into the workplace, two were pre-retirement strategies and four involved flexible work options. This project entailed a retrospective evaluation of the seven programs and differed from the other *Research to Action* (RTA) projects because it was solely concerned with evaluation of pre-existing initiatives.

All seven programs were launched without a formal evaluation component, and the tracking of local uptake varied throughout the province. The union and various employers faced challenges in implementing these strategies in a timely fashion, as most were designed at the bargaining table during negotiations. As a result, systems, policy and procedural changes had to be developed to support their implementation after they became available.

Participants in the programs indicated improvements over time in several areas, including higher levels of satisfaction with work-life balance, hours worked and their current practice and profession. The evaluation found that participation led to perceived improvements in nurses' confidence, greater control over their work environment, decreased stress levels, increased energy and morale and perceived improved ability to provide high-quality care. However, no formal implementation plan had been developed or made available to assist employers with implementation of the programs. The findings highlight the need for more discipline in communicating, implementing and evaluating initiatives such as those evaluated retrospectively in this project. In particular, key performance indicators, baseline data, monitoring mechanisms and an evaluation plan need to be developed prior to implementation.

Background

In 2009, the Canadian Nurses Association report on the nursing shortage projected that unless immediate action was taken, Canada would be short 60,000 FTEs by 2022 (Tomblin Murphy et al. 2009). Sixty per cent of experienced nurses are over 40 years old, and healthcare administrators are anticipating a large number of retirements over the next few years (Coutts 2010).

Retention and recruitment strategies are an essential activity to address current and future supply issues in the nursing workforce and the viability of healthcare delivery in Canada. Growing demand, coupled with ongoing shortages, suggests that efforts must be increased to retain nurses currently working in the field. The 2008 national Nursing Turnover Study reported that the average turnover rate was close to 20% per year (27% in ICU), costing an average of \$25,000 per nurse through temporary replacement costs and initial decreased productivity of new hires (O'Brien-Pallas et al. 2008).

Further issues have arisen regarding the transfer of knowledge between experienced nurses and those new to the profession. Many feel that those entering the nursing workforce benefit from assistance in adjusting to the high stress and heavy workload. A 2004 study published in the *Journal of Nursing Administration* noted that the presence of experienced nurses in the workforce helps in the orderly transfer of knowledge to more recent graduates and inexperienced nurses (Duchscher and Cowin 2004). If greater numbers of experienced nurses contemplate retirement, health organizations will lose a tremendous source of knowledge and expertise.

There is now general agreement that a healthy work environment is an important component in any retention and recruitment strategy. A *Journal of Advanced Nursing* study on the determinants of hospital nurse intention to remain noted that “strategies that focus on building respectful relations at work may have tremendous capacity to promote nurse intention to remain employed” (Tourangeau et al. 2006). Unions, employers and professional associations believe there is a strong correlation between a healthy workplace and higher retention rates among experienced (>45 years of age) nurses.

A 2006 Health Canada–funded study undertaken by the Canadian Federation of Nurses Unions (Wortsman and Janowitz 2006) reviewed recently published literature on retention of experienced nurses and conducted 30 structured telephone interviews with key informants representing unions, employers and government on current trends and nursing issues. In addition, input and insight into nurses’ perceptions of their workplace environment and work life issues were obtained through a survey questionnaire distributed to 570 (285 returned) nurses and two focus groups. Findings from that study relevant to this project include the fact that many new graduates feel they are unprepared for the work environment and that too much is expected from them in the beginning. Better orientation and mentoring by experienced nurses was identified as key to assisting new graduates in their transition and integration into the workplace. The majority of nurses surveyed, 46 years of age and older, stated that changes in the work week, hours and flexible scheduling arrangements would greatly influence their decision to continue working rather than retiring. Strategies affecting retirement through phased-in retirement options or reduction of hours of work without reducing retirement benefits ranked first in overall desirability by nurses surveyed.

In response to increasing concerns over a nursing shortage, employers and the United Nurses of Alberta (UNA) introduced an ambitious list of retention and recruitment (R&R) programs for nurses in Alberta. In total, there are seven

initiatives available to approximately 24,000 nurses. The initial strategy, the Transitional Graduate Nurse Recruitment Program (TGNRP), was included in the 2001 Multi-Employer/UNA Collective Agreement and the additional six in the 2007 agreement.

Of the seven strategies, one supported entry into the workplace, two were pre-retirement strategies and four involved flexible work options

- To support entry into the workplace, the TGNRP, implemented in 2001, provided new graduates with supernumerary positions (positions above the normal staff complement) for up to one year.
- In 2007, the two pre-retirement strategies for nurses nearing retirement age were designed: under the Retirement Preparation Program, eligible nurses had 20% of their time to be designated for non patient-related work; and the Pre-Retirement FTE (full-time equivalent) Reduction Program reduced the FTE while maintaining the nurses' full pension.
- In addition, four flexible work options were designed for nurses at various stages in their careers. The first, the Weekend Worker Program, paid nurses working all weekends a full-time salary for 0.8 FTE of actual work. The second strategy, the Flexible Part-Time Program, allowed employees to increase their FTE hours while providing flexibility on scheduling additional shifts. The third strategy, the Seasonal Part-Time Position Program, was available to individuals who wished to compress their annual FTE into a smaller portion of the year and continue benefit coverage throughout the year. Finally, there was the Benefit-Eligible Casual Employee Position Program, which combined the flexibility of casual employment with a mutual commitment of a regular position with benefit coverage.

Approximately 1,600 nurses participated in the seven R&R programs between 2001 and 2009, with the majority (about 1,450) being Transitional Graduate Nurse Recruitment Program participants.

All seven programs were launched without a formal evaluation component, and the tracking of local uptake varied throughout the province. The focus of the *Alberta Research to Action* (RTA) initiative was to conduct a retrospective evaluation of the seven nursing R&R programs that were implemented. This RTA project differed from the other RTA projects because it was solely concerned with evaluation, not implementation, and was not part of the national evaluation by the Tomblin Murphy Consulting company.

Project Design and Implementation

The project took place over a 27-month period. A project steering committee was formed in fall 2008 and consisted of representatives from the UNA, Alberta Health Services (AHS), Covenant Health and Alberta Health and Wellness (AHW). Two project coordinators were contracted to manage the project. Intergate Consulting Group was engaged to complete the evaluation. The evaluation design received approval from the Conjoint Health Research Ethics Board (CHREB) at the University of Calgary. Throughout the project, an expert in social return on investment (SROI) and a videographer were contracted. The project required the assistance of key human resources contacts in the former health regions. These contacts were instrumental in providing the initial data for the preliminary mapping of the initiatives that had been implemented. Mapping included the historical health regions and identified individuals who had been involved with the implementation of the programs. The project coordinators worked with the College and Association of Registered Nurses of Alberta to provide a mailing list of Alberta nursing graduates from 2001 through 2009 to a contracted third-party mail-out service.

Objectives

The evaluation project set out to

- identify the sites where the seven retention and recruitment strategies had been implemented;
- evaluate the impact of the seven programs;
- determine, in particular, whether the retention and recruitment programs had a positive impact on quality of work life indicators; and
- contribute to the national body of evidence-based research on retention and recruitment initiatives.

Methodology

The evaluation methodology included a retrospective intentional design focus group with the steering committee, individual key stakeholder consultations and interviews, online surveys and site visits to five areas throughout the province. A total of 688 individuals participated in the various components of the evaluation.

Evaluation tools

1. Consultations to confirm intentional design ($n=8$)

A half-day consultation with the Alberta project steering committee was held to confirm a retrospective intentional design for the TGNRP and the various R&R programs. The discussion focused on two areas. The first was the design

and implementation of the programs (rationale, objectives, use of supporting implementation plans, extent of consultation and engagement in the design and implementation, and challenges and opportunities related to design and implementation). The second was the success/impact of the programs (the committee's perception of the achievement of objectives, overview of key intended and unintended impacts and successes, the cost of not implementing, impact on partnerships and impact on sustainability and transferability).

2. Mapping of programs and follow-up with selective sites

Identification of participating organizations and facilities, and follow-up on preliminary data contained in a consolidated database, facilitated the mapping of the R&R programs to support the evaluation. The data set for the evaluation surveys was generated from this mapping exercise.

3. Key stakeholder interview consultations (n=16)

A total of 16 key stakeholder interviews were conducted with selected participants, based on their experiences with the design and implementation of the R&R programs, their ability to provide feedback on how these were implemented and factors that may have supported or impeded success.

4. Participant surveys (n=518)

The purpose of the two surveys (plus one follow-up) was to assess whether participating nurses were realizing expected outcomes, such as increased empowerment, job/professional satisfaction, impact on practice and occupational commitment (e.g., intention to stay in the profession) as a result of participation in these programs. Nurses were invited to participate in the two surveys via a mail-out letter. The surveys were hosted on the UNA website, and periodic monitoring was undertaken to gauge uptake and to follow up communications (by phone and e-mail, where available) to encourage participation.

- *TGNRP Survey (n=196/1,450)/Non-TGNRP Survey (n=234/3,555)*: Given that participation in the TGNRP was not mandatory, a comparator group was identified for the TGNRP participants from nurses who had graduated in Alberta from 2001 to 2009, but had not participated in the TGNRP.
- *R&R Programs: Pre-Retirement and Flexible Work Options Initiative Participants Survey (n=147/151)*: While the initial methodology did not identify a comparator group in the six R&R programs because of the small number of participants (n=147), when the responses to the survey were analyzed, evaluators found that 54 of the individuals responding had not participated in any of the programs, thus serving as a comparator group for the six R&R

programs. In addition, 22 individuals completed a follow-up survey eight months after completing the initial survey. The responses of these 22 individuals to the follow-up survey were compared directly to their original responses from the initial survey. R&R program participation represents an actual response rate of 62%. Thirty-six per cent of respondents who indicated they did not participate in any of these programs became the comparator group.

5. Site visits (sites: $n=7$; implementers: $n=51$; nurses: $n=36$)

The site visit reviews included organizations where it was known that implementation of the R&R programs had occurred in order to obtain first-hand information of effective implementation practices that may be transferable to other areas or professions. It also included organizations where participation in the R&R programs was lower than expected in order to identify potential barriers to implementation or suggested changes to the programs. Structured consultations were held with 51 implementers (managers, human resources, systems and other operations supports) and 36 nurses (who had either participated in one of the programs or who had indicated an interest in participating in them, and local UNA representatives).

Limitations and Challenges

The evaluation was retrospective in nature because the various programs had been implemented prior to approval of this evaluation project. There was very little quantitative baseline data (e.g., financial, overtime, sick time statistics) identified or gathered prior to or following implementation. There was also limited central tracking and monitoring of the programs that were implemented. As a result, it was difficult to obtain exact numbers or locations of implemented programs.

In addition, it is not known whether other projects or activities unrelated to the seven programs may also have influenced the survey indicators. Because of the lack of baseline data and monitoring of data elements throughout implementation, there was no ability to conduct statistical analysis on the data set that was ultimately compiled. It is acknowledged that there may be significant intervening variables that may have influenced the responses to the evaluation. These intervening factors may have included the major provincial restructuring of the Alberta health system with the merger of nine formerly separate health entities into one organization, Alberta Health Services (AHS), in April 2009. As a result, the evaluation occurred within a dramatically changing healthcare environment in Alberta. The environment changed from one in which nurses were in great demand and initiatives to retain and recruit them were emphasized, to

one in which nurses were perceived to be in excess supply and thus reduction in staffing levels was taking place. At the same time, the H1N1 pandemic was demanding significant attention and resources in most healthcare systems. This situation may have influenced the response rate from the nurses. It certainly contributed to the challenges of engaging AHS personnel, who were focused on both restructuring of the system and the pandemic response.

Evaluation Findings

Program design

According to all those consulted, at the time the TGNRP and six R&R programs were introduced (2001 for the TGNRP and 2007 for the six R&R programs), Alberta was experiencing a significant shortage of nurses. It was recognized that targeted actions were required in order to retain and recruit nurses and address nurses' and employers' needs. The UNA membership also wished to address workplace satisfaction. The TGNRP was introduced to assist with entry into practice, while the six R&R programs were introduced to provide more flexible work options (e.g., Weekend Worker, Flexible Part-Time, Seasonal Part-Time and Benefit-Eligible Casual Employee positions). These were seen as a way to help stabilize the workforce and lead to greater satisfaction, and therefore greater retention among nursing staff. Further, the TGNRP was designed to assist other nurses with pre-retirement transition (e.g., the Retirement Preparation Program and the Pre-Retirement FTE Reduction Program).

During preparation for bargaining, the employer members of the Joint Committee noted that they developed a number of priority issues, criteria and principles for bargaining that included the need to ensure

- an adequate nursing supply and workforce;
- a high-quality workplace;
- safe patient care;
- a respectful environment in terms of transition and mentoring;
- effectiveness; and
- the addressing of strategic issues (e.g., retention of experienced RNs, responsiveness to environmental changes, appropriate use of health professionals, leadership and ensuring that the collective agreement wasn't acting as a barrier in the workplace).

In entering this round of negotiations, it was agreed that some creativity would be needed to design a series of initiatives that would effectively address the nursing shortage. This creativity was identified as the "predominant flavour

throughout the bargaining process,” with both parties bringing forward ideas for consideration and open discussion.

Program implementation and supports

Key informants and implementers consulted during the site visits noted that there was no formal plan developed or made available to assist employers with implementation of the programs. Implementers in all regions visited reported that only minimal supports were provided and that in most cases, implementation details were missing. This lack of detail led to delays in implementation, duplication of effort and inconsistent application throughout the province.

While key informants noted that the Joint Committee created guidelines for managers to implement the programs, employers had to develop policies and procedures according to who would or would not be accepted into a particular program. They also indicated that no adequate supports or guidance were put in place to assist in the required operational changes to payroll, scheduling, communication and management systems, or for the approval mechanisms required to implement the programs. All regions consulted felt that they were left to decide whether and how to implement the R&R programs. As a result, the initiatives were applied differently in each region, increasing the difficulty of supporting, monitoring and evaluating them at the provincial level.

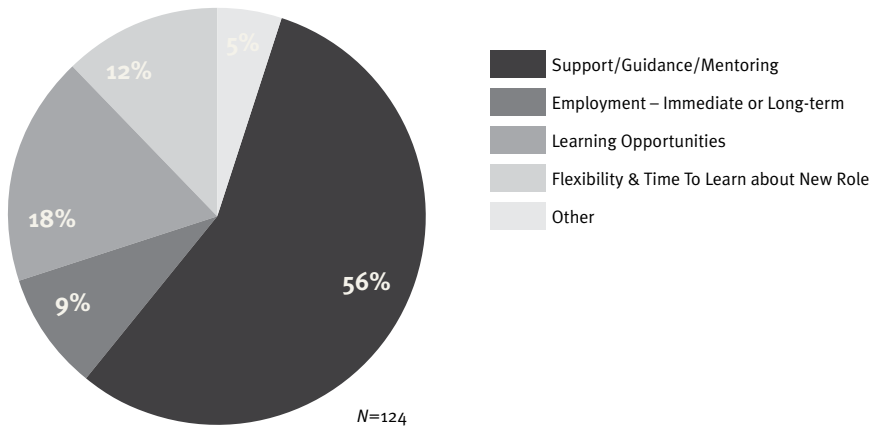
Transitional Graduate Nurse Recruitment Program (TGNRP)

Overall, the program had a positive impact on nurses’ confidence, on their skills and ability to provide high-quality patient care and work collaboratively with other team members, and on their job satisfaction. The most valued aspects identified were the mentoring relationship, learning opportunities and the time allowed for them to learn their new role. Consultations through the site visits indicated a high level of satisfaction with the TGNRP, both among managers and TGNRP participants:

- Forty-three per cent of respondents identified that their motivation for participating in the TGNRP was to gain knowledge and experience; 27% responded that their motivation was to ease their transition into practice.
- Fifty-six per cent responded that the aspects they liked most about the TGNRP were the support, guidance and mentoring they received (Figure 1).
- The large majority (84%) indicated that they would participate in the program again. This finding would indicate that TGNRP respondents found value in the program.

Figure 1.

Aspects of the TGNRP that respondents liked most

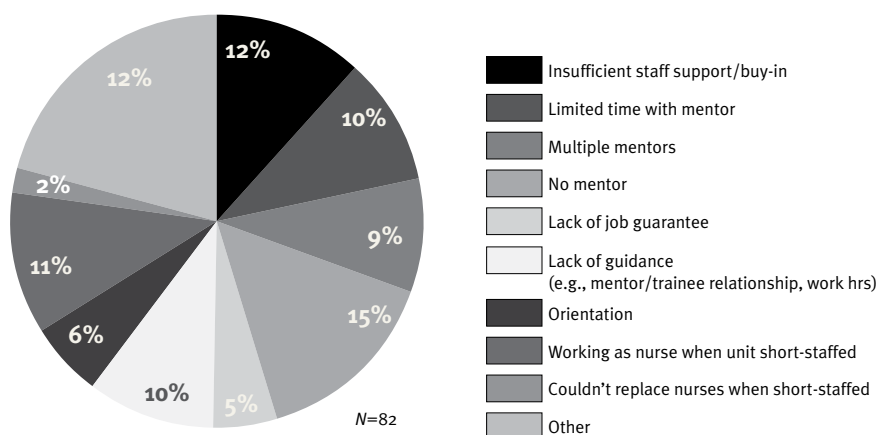


- Although a maximum of one year was identified in the program description, it was noted by 77% of participating nurses that six to nine months was adequate. In addition, this time period provided new graduates with adequate opportunity to apply for regular full-time positions in their practice area of interest. It was hoped that employers would be able to retain these nurses in their organizations for a longer period, assuming that the nurses would have greater satisfaction with their workplace and practice area.
- The key attribute identified both by participating nurses and by implementers was the need to allow flexibility based on the individual participant's own needs and the individual's speed of development in the program. There was, however, a lack of standardization in the length of the program, the training materials available and the provision of a consistent mentor. Improved guidelines and clearly articulated expectations may help to achieve outcomes more effectively.
- Of TGNRP participants who responded ($n=82$) to open-ended questions about those aspects of the program they did not like, 15% noted having "no mentor," 12% indicated "insufficient staff support/buy-in/little support from unit supervisors and senior nurses for program," 10% indicated "limited time with mentor" and 9% identified "multiple mentors" as major reasons for not liking the program (Figure 2). These findings reflect the inconsistency with which the program was implemented across sites, some of which may be attributed to the challenges and confusion noted with regard to implementation.

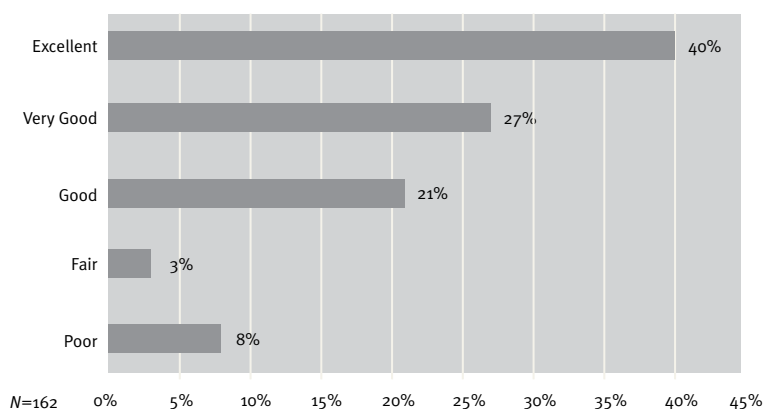
- When asked how they would rate the TGNRP overall, most (67%) of the respondents who answered this question rated the program as excellent/very good. A further 21% rated it as good and 8% of respondents rated it as poor (Figure 3).

Figure 2.

Aspects of the TGNRP that respondents did not like

**Figure 3.**

Overall rating of TGNRP by participants

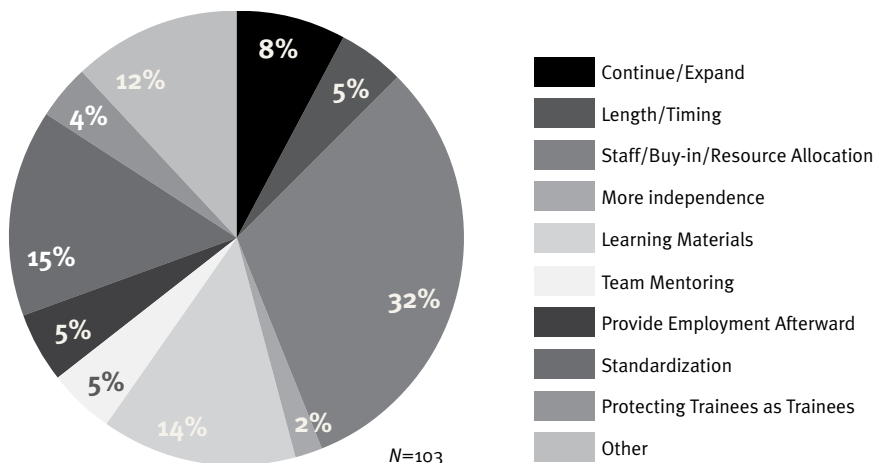


Respondents were asked, in an open-ended question, what they felt could be done to improve the TGNRP (Figure 4). Useful suggestions included:

- Ensure staff buy-in/resource allocation so that staff in the work unit understand what the program is for, its scope and importance. Also, ensure that participants are assigned mentors with sufficient time in their schedules to perform their mentoring duties.
- Standardize the program to include training materials and guidelines for trainees and mentors that give clear expectations for the work unit.
- Standardize learning materials, orientation programs and online resources for nurses to access outside their clinical work hours.
- Continue/expand the program to make it mandatory for all new nurses and to ensure its availability to everyone, i.e., increase access (equivalent to a nursing internship).
- With regard to length and timing, the program should be at least six months in length, and the start dates should be staggered so as not to overwhelm units with too many new graduates.
- Share mentoring responsibilities among a team within the unit.
- Guaranteed employment would be a great incentive. Not having this guarantee seems a waste of resources, given the significant investment in the TGNRP year, if no positions are available for individuals to move into upon completion of the program.

Figure 4.

“How might the TGNRP be improved in the future?”
(TGNRP respondents)

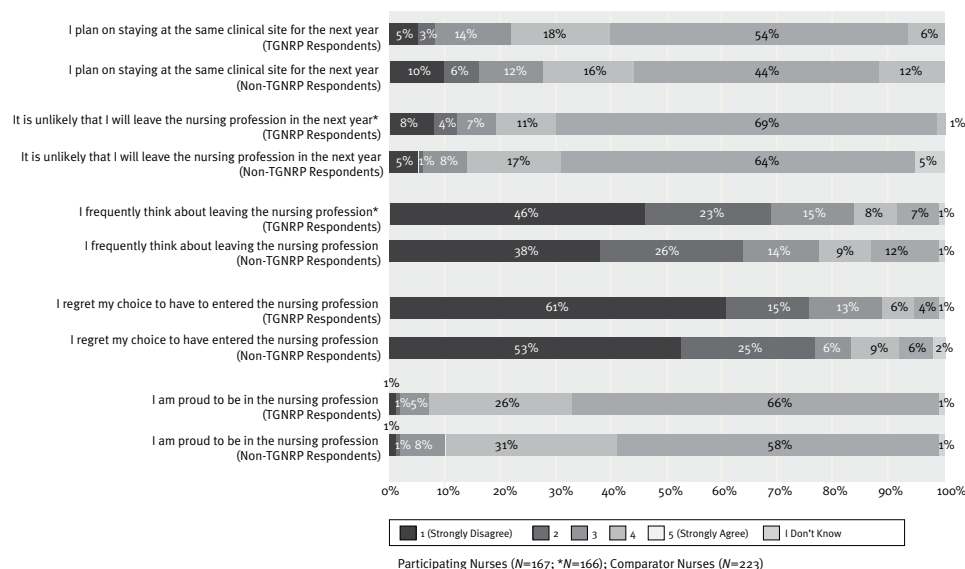


TGNRP respondents were generally more positive than non-TGNRP respondents about their future plans as nurses, indicating a desire to stay longer in their current position and in the nursing profession (Figure 5):

- Sixty per cent of non-TGNRP respondents strongly agreed/agreed that they planned to stay in the same clinical site over the next year, compared to 72% of TGNRP respondents.
- Approximately 80% of TGNRP respondents strongly agreed/agreed that it was unlikely they would leave the profession in the next year. This percentage was similarly found among non-TGNRP respondents.
- A slightly higher percentage of non-TGNRP respondents agreed that they frequently think about leaving the profession (21% vs. 15%) and regretted their choice to enter the nursing profession (15% vs. 10%).

Figure 5.

Views of nurses participating in the TGNRP ($n=167$; $*n=166$) vs. those of comparator nurses ($n=223$)



Other six R&R programs

This component of the R&R program survey attempted to obtain participating nurses' feedback about their level of satisfaction prior to participation in their respective program. Generally, very few nurses were satisfied with the balance

between work and personal life prior to engaging in their respective program. Interestingly, nurses in the Seasonal Part-Time positions seemed to indicate the highest level of satisfaction with their quality of work–life balance prior to starting the program.

Benefit-Eligible Casual Employee Program: This was deemed an important retention tool, as it allowed managers flexibility in offering alternatives to a casual position when there were no opportunities for full-time and regular part-time work. Participants reported greater job security, access to benefits and improved control over their work–life balance. Key challenges included making adjustments to payroll systems and managing expectation when demand exceeded the number of available positions.

Weekend Workers: This program was intended to make weekend shifts more attractive and easier to staff. It was also designed to support improved work–life balance. One of the key challenges was the cost and perception of paying nurses a full-time salary for 0.8 FTE of actual work. Participation in this program had a positive impact on job satisfaction and quality of care provided and allowed managers more time to focus on patient care instead of scheduling.

These positions, however, were sometimes implemented in areas where there may not have been an operational need but rather a desire on behalf of the nurses to access these jobs. In those instances, some nurses who were interested in weekend work resented those who were in the program. Challenges also arose with senior individuals in these positions taking their vacation, requiring a significant number of weekend shifts needing to be filled. The program also required payroll system changes that sometimes had to be done manually.

Pre-Retirement FTE Reduction: This program involved limiting the workload of those nearing retirement by reducing their FTE by up to 0.2 for no more than 2.5 years prior to leaving the workforce. Participants stated they had more time to re-energize and so they felt less drained during the hours they worked and were able to provide better patient care. Participants also identified greater job stability. Employers, however, were challenged to fill the remaining 0.2 FTE after participants had their workloads reduced by that amount. As well, there was no clear direction on how to revert the position back to the previous FTE after the participant retired.

Retirement Preparation: To assist those nearing retirement, this program focused on allocating nurses' FTE between patient care and work associated with projects,

proposals and mentoring, with 20% of their time designated for non-patient-related work. In some cases, however, it was difficult to determine the research proposals and projects that the employees were to work on during the designated 20% of their time. Often, participants felt pressured to cover staffing shortages.

Flexible Part-Time: The purpose of this program was to allow employees to increase their FTE while providing flexibility on the scheduling of additional shifts. Only one participant commented on her involvement with this position. It is unclear whether the limited uptake was due to a lack of interest, awareness or communication about the program. A key challenge for managers aiming to provide flexible scheduling for part-timers would be to coordinate the schedules of nurses selecting this option with the schedules of regular full-time staff.

Seasonal Part-Time: This option was available to those individuals who wished to work for a designated amount of time (e.g., six months with the remaining six months off; useful for full-time students or those wishing not to work for either the winter or the summer). Although the aim of this program was to improve work-life balance, certain participants (this option included four participants) noted they did not experience a significant change in the level of work still required. In addition, managers found it difficult to find someone who was interested in working the remaining six months, and also identified the need for re-orientation required for the staff upon their return. Of the participants that enrolled in seasonal part-time positions, there was a high level of satisfaction with hours worked and leadership within their units. Those consulted indicated improved work-life balance.

It is clear that involvement in the R&R programs had an impact on the level of satisfaction among participants. Based on the results from the R&R programs follow-up survey, the greatest impact was shown in the following areas of practice:

- *Hours of work:* 91% either agreed or strongly agreed that their level of satisfaction with their current job was influenced by participation in their R&R program. This is not surprising, as most of the programs resulted in the nurses' working fewer hours, having more flexible schedules or having more control over their work hours.
- *Balance between work and family/personal life:* 91% agreed or strongly agreed that their level of satisfaction with their current job was influenced by participation in their R&R program.
- *Current job:* 78% either agreed or strongly agreed that their level of satisfaction with their current job was influenced by participation in their R&R

program, with 14% strongly disagreeing.

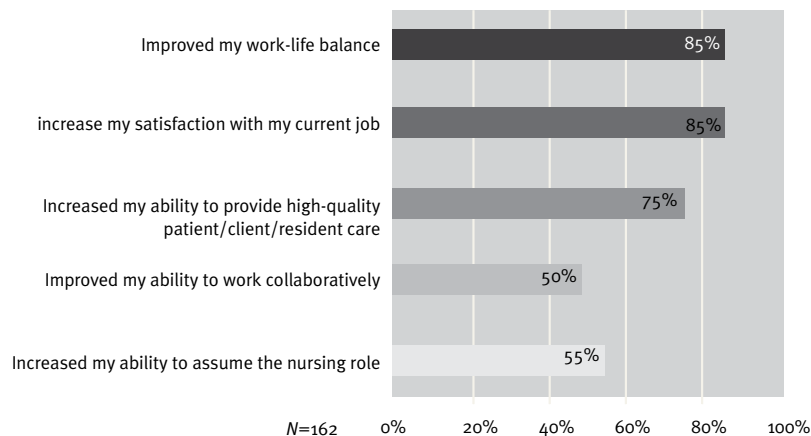
- *Nursing profession*: 68% either agreed or strongly agreed that their level of satisfaction with the nursing profession was influenced by participation in their R&R program, with 19% disagreeing and another 14% neutral.
- *Practice setting/work environment*: 68% agreed or strongly agreed that their level of satisfaction with their current job was influenced by participation in their R&R program, with 19% disagreeing and another 9% neutral.

Less than 50% of respondents agreed that their level of satisfaction with respect to areas of practice, such as “the nursing leadership in my unit” and the “level of collaboration among healthcare providers in my unit,” was affected by program participation.

Figure 6 displays the post-survey results regarding the broader impacts of program participation. The impact of the R&R programs is primarily related to increased satisfaction with current job and improved work–life balance.

Figure 6.

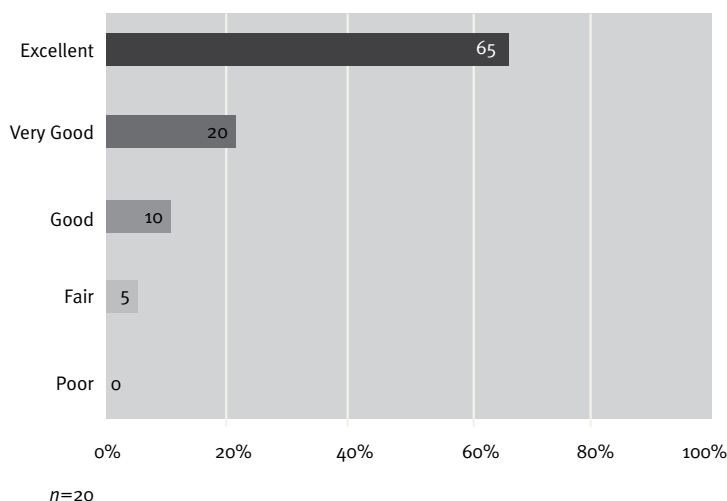
Impact of participation in the R&R programs



An overwhelming majority of respondents assessed the R&R programs as either excellent or very good (65% and 20%, respectively); 95% rated them from good to excellent. The remaining 5% of individuals rated the R&R programs fair (Figure 7).

Figure 7.

“Overall, how would you rate the R&R program?”
(Follow-up survey respondents)



Lessons Learned

The evaluation revealed that stakeholders viewed all the R&R programs (particularly the TGNRP, Weekend Worker, BECE and Pre-Retirement FTE Reduction programs) as having a positive impact on the retention and recruitment of nurses. The programs were viewed as helping to address specific workforce needs as well as the needs of employees. The majority of key informants agreed that these initiatives should and could be transferred to other health facilities and health professions (indeed, any shift worker) based on the required need.

The RTA project findings highlight the need for more discipline in communicating, implementing and evaluating initiatives such as those that were evaluated retrospectively in this project. In particular, key performance indicators, baseline data, monitoring mechanisms and an evaluation plan need to be developed prior to implementation. More could have been done to increase awareness among key stakeholders (managers, nurses, union representatives and other healthcare providers) about the seven programs. Knowing the operational details for the implementation of any initiative is important in order to understand any payroll system challenges, ensure provincial consistency and avoid duplication of effort. As well, the state of the local labour–management relationship was an important factor in supporting successful implementation of the programs.

The findings of the evaluation were presented to the Multi-Employer/UNA Joint Committee. The following activities were highlighted as key to improving the planning and implementation of current and future retention and recruitment initiatives:

- Need for a broad engagement of stakeholders to inform the design and implementation of future initiatives.
- Detailed broad-scale implementation plan to support a provincial roll-out with a focus on the longer term (three years and more); a toolkit to support employers and managers with a greater consistency of implementation.
- Identification of key performance indicators to support monitoring strategies.
- Communication strategy to ensure all stakeholders are aware of the initiatives and of a recommended approach to implementation.
- Evaluation plan to be in place before implementation, which includes a social return on investment (SROI) element.

The Joint Committee accepted the recommendations and is developing a plan to inform decision-making and implementation of future collective bargaining and Joint Committee initiatives.

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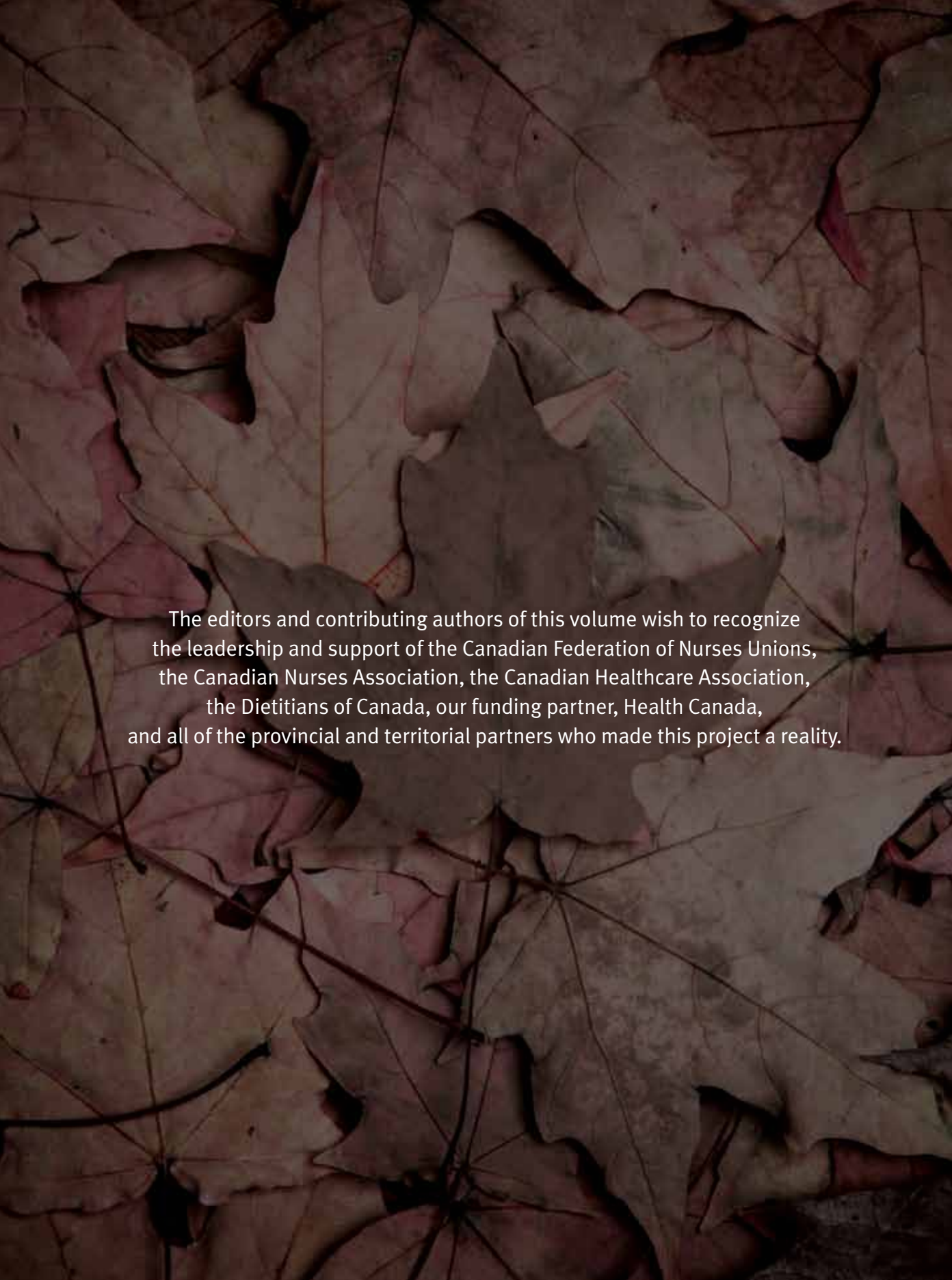
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