Supporting Rural nurses: Skills and Knowledge to Practice in Ontario, Canada

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Abstract

Background: Nursing in rural settings requires the skill set of a multi-specialist who is adaptable to change and different ways of working. Maintaining skills needed for emergency management of complex health issues is difficult, and retention is affected by the paucity of further education opportunities and mentors.

Purpose: In collaboration with five small community hospitals in southern Ontario that experience challenges in recruiting and retaining sufficient nursing staff, this project used critical ethnography to ascertain appropriate retention strategies.

Methods: Data collection included environmental scans, interviews with 45 rural nurses, and completion of 156 surveys from nurses on rural nursing careers. During the project, staff-identified, educational strategies were implemented in 3 of the 5 community hospitals. **Findings**: Seven themes emerged from the data. Overall, rural nurses identified that they were content to stay, as long as there was sufficient work.

Conclusion: Retention interventions that are locally constructed with attention to community factors have the greatest likelihood of succeeding.

Keywords: Rural nursing, Nurse retention, Critical ethnography, Retention strategies

Supporting Rural nurses: Skills and Knowledge to Practice in Ontario, Canada

The complexity of healthcare in acute care hospitals has increased rapidly. The expectations of Canadians to receive care close to home means that a hospital is highly valued, and in small rural communities, the local hospital is often a symbol of viability. However, delivery of acute healthcare services, particularly critical care, requires specialized skills and rural providers often struggle to maintain competence. A number of initiatives, including telehealth, specialized education programs including advanced cardiac life support (ACLS), and transportation to tertiary centres, are now integral parts of Canadian healthcare systems; yet, in reality, the vast geographic area and heterogeneous rural populations across the country makes rural acute and critical care competency complex and multi-dimensional.

In 2000, nurses composed about 35% of the total health care provider population in Canada, with approximately 18% of this total serving in rural areas (Pong & Russell, 2003); the proportion of nurses practicing in rural areas dropped 5% from the reported levels in the early

2000's but stabilized by 2012 at 13% (Canadian Institute for Health Information, 2013). Today, there is a better understanding of why nurses work and stay in rural Canada than in the 1990's because of significant research in this area (MacLeod, Kulig, Stewart, Pitblado, & Knock, 2004). From their work with public health nurses in rural British Columbia, Henderson Betkus and MacLeod (2004) proposed filter factors that can influence retention: demographics, personal circumstances, and opportunities. Others have proposed models of residency (Bratt, Baernholdt, & Pruszynski, 2014; Keahey, 2008), clinical placement in pre-registration education (Schoo, McNamara, & Stagnitti, 2008), and desired nurse attributes (Sivamalai, 2008) to attract rural nurses and retain them. Some factors are amenable to education programs to help prepare nurses for the realities of rural living (Baernholdt & Mark, 2009; Medves et al., 2006), while others are personal such as spousal employment, age and education requirements of children, and lifestyle (Molinari, Monserud, & Hudzinski, 2008). This report describes a two-phase study designed to: a) identify modifiable factors to help maintain nursing competence; and, b) implement interventions to possibly retain rural nurses, based on phase one findings. Specifically, we chose to study the supports offered by staff nurses, managers and decision makers in five, small rural hospitals that could assist nurses acquire and maintain knowledge and skills to retain them in their current job. The definition of rural used was that of a community less than 10,000 population residing outside of commuting distance.

Literature Review

The increased demand for health care providers has resulted in a shortage, and this is especially true in rural and remote Canada. Policies and programs to help alleviate the problems of shortages are usually urban centred (Bowman & Kulig, 2008). Nursing in rural and remote Canada is unique, and each setting has additional differences that make them unique from each

other. As described by Molinari et al. (2008) “a rural nurse may manage traumas, calm the mentally ill, stabilize the critically ill, deliver emergency births, care for children and comfort the dying within the same shift” (p.3). The skill sets required are of a multi specialist who is adaptable to change and different ways of working than more traditionally experienced in urban settings (Bushy, 2002; Hegney, 1996). The role was described by Kosteniuk, D'Arcy, Stewart, and Smith (2006) as ‘multi-skilled autonomous expert generalists’ (p. 101). Often there are limited numbers of health care professionals available and recruitment can be a challenge when there is no work or limited work for family members (MacPhee & Scott, 2002). Maintaining skills needed for emergency management of complex health issues is difficult, and retention is affected by loneliness, the paucity of further education opportunities and mentors, and a trend to centralization of services that effectively undermines the confidence of rural providers. The number of nurses living in rural settings is less than the equivalent population ratio in urban Canada (Pitblado, Medves, MacLeod, Stewart, & Kulig, 2002). As articulated by the researchers in the Rural and Remote Nursing study, “In small communities, nurses' personal and professional roles are inseparable. The intertwining of nurses' everyday practice and their personal lives needs to be taken into account in developing policies and services” (MacLeod et al., 2004, p.v).

Rural dwellers value locally available health care services, recognizing that they may have to travel for highly specialized and complex care; the challenge then becomes the ability to provide primary health care, secondary intervention, and on occasion, emergency stabilization and medical evacuation to urban centres. In the past ten to fifteen years, numerous very small hospitals have discontinued services such as 24-hour emergency care and maternity units (Grzybowski, Stoll, & Kornelsen, 2013). In some communities there has been a concerted political engagement to save their hospital from closure or reduction of services. Political action

can sometimes really undermine the health care professional's ability to maintain services while under intensive scrutiny, as was demonstrated in the efforts of Stevenson Memorial Hospital in Alliston, Ontario ("Hospital CEO and VP resign," 2007). While closures have been essential for safety reasons, those hospitals in small communities that remain often struggle to cover all shifts with adequately prepared health care professionals. Models of rural delivery of care are often more interprofessional in nature as professional scopes of practice are fully utilized (Stewart et al., 2005). Rural health care providers identify that courses such as ACLS are geared more to an urban setting where there are teams of people available to respond to emergencies; furthermore, access to educational, research and practice resources, particularly courses, are often limited or non-existent (Penz et al., 2007). By necessity there is often a different approach to care delivery in small centres. In addition, rural Canadian nurses surveyed overwhelmingly relied on rural nursing colleagues for information (Kosteniuk et al., 2006); therefore, supporting rural nurses in their own context may be more efficient and effective in continuing education.

While urban hospitals are experiencing a shortage of nurses, rural hospitals underwent this trend earlier; arguably, to lose one nurse out of a group of 20 is much more critical than losing one out of a group of 50. Recruitment of nurses often requires an expensive search, as well as costs associated with moving to the community. Health care professionals need to understand the rural context and may have unrealistic expectations of rural life. Recruiting professionals who understand the complexities of rural life and work is essential to minimize the constant recruitment cycle. One approach is to develop a retention strategy that is locally appropriate and sustainable in the long term, yet we do not fully understand all of the issues related to retention in rural communities. "Recruitment and retention of nurses can be more successful when done with an understanding of the perceptions of nurses in rural and remote

communities and in partnership with the communities themselves" (MacLeod et al., 2004 p.v). This study aimed to provide evidence to further inform decision makers, managers and nurses in understanding interventions which may be helpful to maintain a highly skilled and professional cadre of rural nurses who practice collaboratively, both intra- and inter-professionally, to provide patient-centred care.

Conceptual Frameworks and Methodology

The investigation was designed to be carried out in two phases: a) an environmental scan of the participating communities and small rural hospitals, using several data collection techniques; and, b) an intervention phase that was informed by phase one and developed in partnership with the rural hospital staff, targeting retention strategies. As the study was occurring in vivo, Troughton's (1999) framework was applied during phase one in the assessment of the rural communities. Likewise, to guide the intervention phase, DiCenso and colleagues' work on evidence-based practice informed our actions (DiCenso, Guyatt, & Ciliska, 2005). A brief synopsis of both frameworks follows.

The Troughton framework (1999) originated in community development and has been adapted for use to incorporate health care into a global understanding of a particular community. The framework provides a template to assist researchers assess each component of the community, including economic structure, social services, distribution of goods and services, community self-determination, and cultural and environment quality of life. Communities less than 10,000 in population were defined as rural for the purposes of this study (du Plessis, Beshiri, Bollman, & Clemenson, 2001).

The model from DiCenso and colleagues (2005) helps organize the factors required for excellent clinical expertise and is particularly helpful in rural hospitals where there may be

limited resources. The model for evidence based clinical decisions has four overlapping concepts, and when factored into practice, lay the foundation for clinical expertise. The factors are: clinical state, setting and circumstances; patient preferences and actions; research evidence; and, health care resources. The premise of the model implies that by working through the adoption of evidence based, best practice changes that may be required, the rural community recognizes that they may have to adapt because of distance to tertiary care, patients may prefer to receive care close to home and be unwilling to travel, and there may not be all of the available health and human resources to have specialist care.

Conventional ethnography is a methodology suited to describe and interpret culture and cultural phenomenon, whereas the use of critical ethnography uncovers the covert social structures (e.g. patterns of exclusion) and attempts to change them (Averill, 2006; Bransford, 2006; Simon & Dippo, 1986; Thomas, 1993). As the study purpose exceeded the mere description of rural nurses' retention experiences, we maintain that critical ethnography was the most appropriate method to guide the study. In partnership with each hospital and local community, data collection methods incorporated a review of pertinent local archives, ethnographic interviews, and participant observation. The researchers were mindful of specific research procedures germane to critical ethnography, which included: a) vigilant scrutiny of interview and observational data for imposition of the researchers' values; b) searching for anomalies in the interview data that lead to deeper meanings; and, c) the use of 'defamiliarization', the process of scrutiny of data from a familiar culture using a critical lens (Bransford, 2006). Following the implementation of retention strategies, we used survey methodology for evaluative purposes. The authors' university granted ethical approval (REB #NURS-222-08), as well as the affiliated hospital ethics review boards.

Communities and Participants

The five participating communities selected for inclusion all operate a community hospital that provides acute care inpatient capabilities, ranging from 10 to 53 beds. Two of the hospitals provide maternity care; all have an emergency department. The communities are different. One is a summer resort and so has a seasonal increase in the summer; one provides care to a medium size town and to families from a military base; one has a population engaged in forestry and mining, and another recently suffered major job loss with the primary employer closing a factory. The participants were Registered Nurses (RN) and Registered Practical Nurses (RPN) working in the aforementioned hospitals in a rural area of southern Ontario. Throughout the remainder of the text, they will be referred to in the collective as 'nurses'.

Procedures & Interventions

Phase one of the project was completed between June and November 2008 and consisted of an environmental scan of each community and hospital, using a critical ethnographic approach. In this phase, four forms of data collection were used: a) document analysis that resulted in hospital and community profiles; b) participant observation; c) a short demographic survey; and, d) interviews. Of note, a new provincial policy to recruit new graduates into full-time positions, entitled the Nursing Graduate Guarantee Initiative, began in 2007, and continued through the data collection period (HealthForceOntario, 2014).

A Research Associate (RA) was hired for each corporate institution to understand the culture of each hospital and to establish priorities with the nursing staff of participating hospitals. As one of their first tasks, the RAs collected community and hospital data. Data for the community profiles were derived from the 2006 census using the Community Profile feature of the Statistics Canada website (Statistics Canada, 2008). All of the communities have fairly

similar profiles with English as a mother tongue, and having proportionately lower percentages of young adults and few recent immigrants.

During the six months of phase one, the RAs immersed themselves within the five communities and sites to a level in which they would no longer be as prominent as an outsider to the local residents and hospital staff. This was accomplished by joining many of the staff on breaks and by simply having a presence at the hospital frequently enough so that the staff was familiar with them. During the more than 600 hours of direct observation of nursing units, informal discussions with nursing staff and managers took place and detailed field notes were kept by the RAs. It was during this phase that a 17-question survey on nursing career and demographic information was distributed to those nurses willing to participate. The surveys were anonymously distributed and collected onsite to gain baseline data. A total of 156 surveys were completed.

The research team had planned to conduct focus groups with the nurses at all sites; however after spending hours observing and speaking with the nursing staff, it became apparent that this strategy was not going to work in any of the rural hospitals. In order to accommodate the nursing staff as much as possible and interfere as little as possible with daily routines, one-on-one informal interviews were deemed the best solution. A protocol of 13 interview questions was developed which helped guide the research team's ability of extracting the data necessary to gain an understanding of retention issues amongst rural nurses in southern Ontario (see Figure 1). Following written consent, the research assistants and the authors used digital recording methods to conduct the interviews in unoccupied rooms within the hospitals settings. Recordings were transcribed shortly after the interviews (n=45) and reviewed for completeness.

Based on findings and recommendations from phase one of the project, planned interventions were undertaken in three out of the five hospital sites in phase two over 13 months (December 2008-December 2009). Interventions were site-specific and included the following eight activities: a) a two-day mock trauma session: b) critical care education; c) development of an orientation module; d) identification of external funding for staff development; e) investigation of potential library services; f) application support for academic and certificate development; g) staff appreciation events; and, h) a preceptor recognition program. External events outside the control of the research team prevented our planned interventions in two of the hospital sites, as nursing educators were hired by hospitals to address our previously identified educational needs. Follow-up interviews and post-surveys (n=108) to evaluate the effect of the interventions by rural nursing staff were completed between January and February 2010.

1. Can you tell me about your job at this hospital?
2. How long have you worked here?
3. When you started working here what were the expectations of qualifications in addition to your nursing registration were you required to have?
4. How easy is it for you to access continuing education opportunities?
5. What keeps you working in this hospital and community?
6. Can you reflect on why other nurses stay at this hospital?
7. If a new nurse were to come and look around this hospital, what would you tell her the benefits to working here are?
8. Are there any policies and contracts that make it difficult for retaining nurses at this hospital?
9. Have you been a preceptor/mentor for nursing students at this institution?
10. What other support staff are available for you to do your job effectively?
11. Do you find you have an effective working relationship with other professionals?
12. Do you feel your issues, concerns, values and assessments are heard and acknowledged by other staff?
13. Do you have anything you would like us to know or to add to anything?

Fiaure 1. Main Questions of Interview Protocol without Probes

Data Analysis

To identify themes, the authors and two research assistants read transcripts of the interviews and participatory observation field notes independently; group meetings were held to discuss and critically reflect upon emerging themes. Similarities in nurse responses between sites were noted and implications for rural nursing retention arising from these common themes were identified.

Survey data was analyzed for frequencies and proportions using SPSS® 18.0. The age distribution and the aggregate characteristics of those who participated in the survey are found in Figure 2 and Table 1, respectively. The interview data was interpreted in tandem with the field notes, as well as the results from the document analysis and demographic survey data. The following findings represent the triangulated results from this process.

Table 1

Characteristics of Survey Participants (n=156), in 5 Ontario Rural Hospitals

Characteristic		n*	(%)
Sex	Male	3	(1.9)
	Female	153	(98.1)
Nursing Position	RN	110	(70.5)
	RPN	46	(29.5)
Employment Status	Full-time, 8 hr	56	(35.9)
	Full-time, 12 hr	34	(21.8)
	Part-time	62	(39.7)
	Casual	2	(1.3)
	Part-time, Casual	2	(1.3)
Highest Nursing Educational Level	RPN certificate	29	(18.6)
	RPN diploma	18	(11.5)
	RN diploma	87	(55.8)
	RN degree	19	(12.2)
	RN Extended Class (NP)	2	(1.3)
	Master's	1	(0.6)
Accept Employment under New Graduate Guarantee Initiative	Yes	10	(6.4)
	No	145	(92.9)
Live in Same Community as Work	Yes	94	(60.3)
	No	60	(38.5)
Length of Time Living in Rural Area	<1 yr	1	(0.6)
	1-5 yr	3	(1.9)

Characteristic		n*	(%)
	6-10 yr	6	(3.8)
	11-15 yr	4	(2.6)
	16-20 yr	14	(9.0)
	21-25 yr	23	(14.7)
	>25	10	(64.1)
Location of Birth	Southeastern Ontario	97	(65.5)
	Other Ontario	42	(28.4)
	Other provinces	6	(4.1)
	International	3	(2.0)
Years Working as a Nurse	<2 yr	10	(6.4)
	2-5 yr	10	(6.4)
	6-10 yr	10	(6.4)
	11-15 yr	13	(8.3)
	16-20 yr	16	(10.3)
	21-25 yr	19	(12.2)
	>25 yr	78	(50.0)
Years Working in Rural Setting as a Nurse	<1 yr	8	(5.2)
	1-5 yr	22	(14.1)
	6-10 yr	18	(11.5)
	11-15 yr	10	(6.4)
	16-20 yr	17	(10.9)
	21-25 yr	22	(14.1)
	>25	53	(33.9)
Years Planning to Nurse at this Location	<1 yr	6	(3.9)
	1-2 yr	16	(10.5)
	3-5 yr	26	(17.1)
	>5 yr	104	(68.4)

☛ Not all counts will total 156, due to missing data

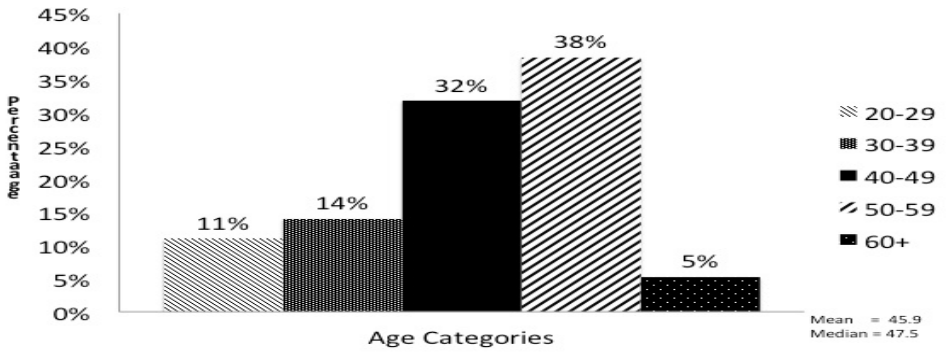

Figure 2. Age Distribution of Participants (n=154)

Findings

Small Rural Hospitals' Inability to Offer Full Health Care Services

After providing a general overview of their typical day, the nurses were also asked to present the disadvantages to working in the rural sites. Many of the downsides reflected their lack or equipment and resources needed they want to be able to provide their patients. One nurse stated: *"I am disappointed…I feel like we're a band-aid station. To fix and transfer out. To stabilize and transfer out, and it's not good."* Several nurses also commented on how experiences are missed in rural areas because they aren't equipped to handle them. Comments included: *"…may be not be as challenging of nursing that they could find elsewhere"; "you don't expand your knowledge base here as much as you would in a bigger hospital"*; and, *"Well if you are a new grad and you're looking for experience, you're going to do a little bit of everything coming here, but you're not going to see a lot…."* One nurse commented on how due to the lack of seeing different experiences and health concerns, skill proficiency may suffer as a result of only doing it every six months or longer.

> *…there's lots of things you don't see…[coming from a larger centre] I was quite used to and familiar with working with central lines and I come here and you might not see another central line for 6-9 months and then it comes and it is a big deal to think about all of the things you have to do…it is a simple thing, but they become huge things because you don't see them very often…*

From our environmental scan, we documented that not all hospital sites had in-patient surgical services, computerized tomography (CT), or obstetric services. While there were barriers and limitations voiced because of hospital size, a strong theme was that of providing very good care to their patients.

Belief They Provide Very Good Care

The nurses frequently described how they believed they gave very good care that was valued by patients, families and the community. One nurse shared the following story:

> *…one nurse that just started with us [from a large urban centre] came in as a patient and I triaged her and she said 'oh you're so kind here and the service is so good here' and I guess she went home and wrote a letter about what a good experience she had here…and then she decided she would like to work here as she lives between [site] and Toronto…*

This belief encouraged them to stay working at their institution: *"…the people here actually care about their hospital and they care about the community, so there's a sense that we want to look after the patients…there's more of a commitment because we feel they're our own…"*. Rural nurses have the ability to use all of their skills, instead of only a specific set, again mirroring the "generalist-specialist" idea, and one nurse furthered this by saying, *"I think you get to have more control over…your profession and your practice then you do in larger sites…here you're allowed to think a bit more and we tend to have a bit more open relationship with the physicians…and you can really see how your care effects your patients."*

One nurse spoke of how it is easier to get more from your patients in terms of information when they feel they can trust you and that they aren't going to be seeing many different nurses throughout their stay. She added: *"…patients feel comfortable on the floor and they know some of the people and know friendly faces and little bits about them… and talk about issues that they might necessarily shy away from and asking questions."* Patients are often referred to as a number in larger hospital settings and many nurses spoke of how patients comment on how it is

more personal and how they are not made to feel this way. One nurse commented: *"…we are able to give our patients much more attention, so that they are not just a number."*

In a small and rural hospital, when you get to know a patient and their history very well, it is inevitable that along with developing a relationship with the patient you develop a relationship with the patient's family members and support group as well. This was explained further: *"…I know the patient's family members and they trust me and feel as though they can talk to me…"* The theme of the 'belief they provide very good care' was further borne out by the hospital participant observations and the documentary data that provided evidence of strong community support for these five rural hospitals.

Another nurse described a beneficial factor of working rurally and referred to it as a holistic approach: *"We're probably a more holistic approach…because we are so multi-tasked, where often in the city, people specialize in specific things. You can really see that in our emerg [sic] doctors…they need quite a broad education because they are it…."* While nurses stated that they gave very good care there was also a concern about sufficient work for all the nurses.

Content To Stay, As Long as there is Sufficient Work and Sufficient Schedule

Nurses hope more full-time positions will be created. Results from the survey support this statement, as 42% of those surveyed reported working in part-time or casual positions. Fifty-eight percent of the sampled staff worked in full-time positions, with 36% in full-time, eight-hour shifts, while another 22% worked full-time 12-hour shifts (see Table 1). The staff members were further asked if they work in a part time position, what the reason was for it, and 26% stated that it was because of the lack of full-time positions available. Interestingly, 66% of participants were born in the study area, predominantly from communities of less than 10,000 people.

During the interviews, nurses were asked if they ever work overtime hours, and if so, why they choose to. The majority of the participants interviewed (63%, n=34) stated they work overtime often, for reasons such as "*to help out*", explaining they know how it feels to be short handed, and the part time employees explained they did it for "*the extra shifts and money*". A small percentage of the interviewed population (13%) answered that they do not pick up any overtime and explained that it was mainly because they have full-time positions and the part-time employees are offered it first and generally always take the opportunity. The final 25% of the participants (n=11) were not asked the question.

The staff mentioned numerous areas where the staff shortage affects different areas of their working environment, such as the inconsistency in the scheduling. As a result of not having enough staff to cover all the needed shifts, the nurses end up working a variety of shifts to make sure every time slot is covered, and in turn, this culminates in having a negative effect not only on the staff, but the patients as well. As was mentioned earlier, the patients enjoy and respond better to knowing their nurse very well and because of all of the scheduling difficulties the nurse - patient relationship lacks in consistency. One nurse commented *"…there is no consistency on your shift and there is no consistency for the patients you are dealing with."* It was also mentioned that because of the lack of staff, there is an increased pressure on the existing staff to always be available to work and feel as though they can't leave *"…even if something family wise comes up…"* let alone if someone is wanting to take some vacation time or days for education; *"…there might be only one available person that you could switch with out of the part time staff and it is probably their first time off so they don't necessarily want to switch…"*

The Misunderstood "Generalist-Specialist" Role

Nurses interviewed in all five sites described how they worked to assess and manage the patients under their care, often with limited resources. Commonly, they spoke of the breadth of their responsibility: *"…you do see every aspect of care from emerg [sic] to orthopaedics, we don't get surgery but cardiac, so your pediatric patient, the palliative you just see a whole, you know it is interesting."* Consequently, a common concern was the need for continuing education and the challenge of remaining current:

> *…that is the challenge to for nurses in the rural setting because they need to keep up on ACLS [Advanced Cardiac Life Support], they need PALS [Pediatric Advanced Life Support] and neonatal resus [sic] and trauma care, so there are a lot of components if you go out there and try and keep up to date on all of the changes - it's the same for the physicians trying to keep up to date…*

Of those who participated in the survey, 29% had completed ACLS and nearly 11% PALS. Working as a team was deemed crucial to functioning in their role as rural nurses. Quotes from two nurses illustrate the role of teamwork:

> *You work together a lot but then again it's a small setting – you can't work on your own, you cannot work in isolation in a place like this because you need those people to physically help you or you know, there's nobody else you can call – you've got to be able to work with the people you are working with.* …[we are a] *very close knit, everyone works together, we have a nursing team approach still.*

Several rural nurses, in particular those who worked in critical care areas and the emergency room, expressed frustration with not being fully appreciated by colleagues in larger centres: *"…we are not just a first aid station here, we do know what we are doing. We may not*

have all the resources that we require, but we do a lot of things here…". When interacting with larger, tertiary facilities, they voiced that they feel they are perceived as *"uneducated"* and *"incompetent"*. In actuality, rural nurses are highly educated and skilled and as one participant stated, *"I feel that rural nursing is a specialty…you're kind of on your own a lot of the time and you have to handle the situation…."*. Others indicated that it can be difficult to *"switch gears"* as a rural nurse may care for the chronically and acutely ill, deal with a critically ill patient, or work in a maternity situation all in one shift. This 'generalist-specialist' role that the nurses described was reported as often being misunderstood by their peers in larger centres.

Ingrained Community Differences and Traditions

The setting for the study occurred in rural communities with varying economic and historical origins. The documentary analysis and participant observation assisted in understanding differences between the five sites. Past events occasionally surfaced to the forefront by participants as explanations for the current hospital practices. One of the major events that shaped perceptions, responses and actions was the 'forced administrative marriage' of three rural hospitals with a larger institution by the province nearly 15 years ago. Although several hospital sites are located within an hour's drive of each other and institutionally, operate with very similar styles, current perceptions of communities by those working within hospital organizations continue to be shaped by historical events. The unique culture of each site necessitated a tailored approach to interventions for retention in phase two of our study.

Local Initiatives Do Work

In phase two, our interventions focused primarily on educational priorities identified by rural nurses and activities to recognize and acknowledge their work. From the follow-up survey (n=108) at the completion of the interventions, 64% of respondents were aware of the research

project in their facilities. Along with the follow-up survey, interviews were conducted with key informants (n=7) at the conclusion of the study to try and determine the effect of the study and how far the educational interventions reached.

All individuals who had knowledge on the preceptor recognition program supported this initiative and hoped that it will be sustained past the completion of the project. One participant said:*"…I think that it is great because that just shows the staff that you are working hard and we do recognize that."* Response to the orientation manual at one site was positive from those involved; one manager explained that the orientation manual was *"…an absolutely fantastic benefit to us because that is something we had let slip."* Finally, twenty nurses in the smallest facility attended a two-day mock emergency workshop hosted by the research team; overwhelmingly, the participants agreed that the workshop was useful to their practice (71% 'strongly agreeing', 29% 'agreeing'). The uptake of the initiatives along with the positive feedback contributed to our finding that interventions appropriate to local environments do work.

Provincial Policies Require Tailored Responses to Retention

Comments by participants about retention varied from site to site. This is not surprising, given the differences in hospital bed numbers and visits to the emergency department, geographical location, staff needs and educational levels between the five hospitals. In one region, staff expressed that full-time jobs would allow for increased flexibility in continuing education prospects. From the survey in phase one, nearly 89% of respondents reported they had the opportunity to take additional course(s) or educational offerings in the past 12 months. Others commented on the importance of clinical educators in the promotion of best practice and about the availability of educational funds through the Registered Nurses Association of Ontario (RNAO):

…I am just afraid with these cutbacks again, you know oh don't get rid of these educators, these professional practice people, you know they support you, they can tell you what is new, what is working, wound care – what's the best thing now, because you can't keep up on everything and that is what they do.

The new initiative through RNAO is incredible because that is how I took my critical care; they paid for it…that has been a big thing that has helped a lot of nurses.

Other participants who were closer to retirement age identified that recruitment would become a priority in the near future and should be the focus, rather than retention strategies. They consistently voiced the opinion that the best probability of acquiring new graduates to a rural hospital is to either recruit those who are originally local or who are from a rural community. One site, facing retirement of long-serving staff, had instituted a locum type of approach by recruiting nurses who were interested changing to a different working pace, or who were planning to retire in a few years to their cottage in the region. Despite interesting approaches, recruitment remains a challenge for these small, rural hospitals.

Of those surveyed, only twenty-two nurses (14%) reported planning on staying with their current employer for less than two years. Of these 22 respondents, most (n=15) were between ages 53 and 59, whereas only two respondents under the age of 30 indicated their intent of staying less than two years. Concerns over not fully using educational qualifications were voiced by one participant:

I don't know how long I will be here, if I find something that's more on pace with what I'm doing and I can find more equivalence…it's because I paid lots of money for my education and I don't want it to stagnate…

The majority (68%) planned on nursing at their current location for more than five years (see Table 1). Yet, among those under 60 years of age who plan to work less than two years at their current workplace, significantly more were in full-time positions (n=17) than in part-time or casual (n=3) employment (χ^2 =7.10, df=2, *p*=0.03). This finding is at odds with those nurses who agreed to be interviewed. The Nursing Graduate Guarantee (NGG) initiative did not emerge as a topic during the interviews, and of those who completed the survey, 10 nurses indicated that they had taken employment under the NGG (Table 2). Interestingly, 6 out of the 10 new graduates indicated that they intended to remain at their current workplace more than five years.

Table 2

Plans to Continue Work by Participants in Provincial New Graduate Initiative (n=10)

		How long do you plan on nursing at this location?			
		1-2 years	3-5 years	> 5 years	Total*
Current employment status	FT 8 hour shift	0	1	1	2
	FT 12 hour shift	1	0	2	3
	PT	0	1	2	3
	casual	0	0	1	1
	Total	1	2	6	9

* missing data=1

Discussion

In the study, we set out to identify modifiable factors that might affect nursing competence and possible retention in rural hospitals. Overall, we found that while rural nurses acknowledge that working 'rural' denotes reduced resources available to do the job, they are confident that they provide very good care, and that rural communities appreciate their work. Intention to remain in their current position was high, but tempered by a clear signal that full-time work availability and scheduling issues could change that balance. A theme of the rural nursing role

being misunderstood by colleagues in more urban centres also emerged. Finally, the intervention strategies that arose from the research findings reinforced the importance of tailoring solutions to the local rural context.

The study was guided by the Troughton model (1999) – particularly during the environmental scan phase of the study. It did not prove as useful during the interviews and surveys but the model components raised the awareness of the differences between the rural sites for the research team. Understanding the rural context also assisted the researchers in designing education initiatives that fit the context and need of each site. The DiCenso framework (2005) has guided the thinking about rural practice settings for the research team on several studies and proved most helpful when articulating the components of care in any setting to the nursing staff who participated. By articulating to staff that there are patient preferences and actions, health care resources, research evidence, patients' clinical state, circumstances and setting, and clinical expertise to consider, the framework helps structure discussion about what components need to be contemplated, particularly when examining retention strategies.

Rural hospitals, by their very structure and setting, are not typically designed to provide onsite specialized services (Calico, Dillard, Moscovice, & Wakefield, 2003; Moscovice, Wholey, Klingner, & Knott, 2004). Yet in our study, a few rural nurses identified the 'fix and transfer out' realities of rural practice to be troubling. Most nurses identified the limitations to their scope of practice and accumulation of nursing skills as the biggest drawback to rural practice. This finding is contrary to a recent qualitative study from southeastern United States exploring rural nurses' perceptions of quality care; in the U.S. study, rural nurses highlighted their role in successful transfers as an example of quality care, and the issue of restricted practice was not reported (Baernholdt, Jennings, Merwin, & Thornlow, 2010). However, similar to our findings,

Baernholdt and colleagues found that rural nurses perceived their care to be more holistic than larger centers and that “patients are what matter most” (p. 1349). Comparable findings of nurses’ strong connections to the rural communities where they live have been reported by other investigators (Hunsberger, Baumann, Blythe, & Crea, 2009; Kulig et al., 2009; Penz, Stewart, D'Arcy, & Morgan, 2008).

Since our study was designed, a paper has been published that identified organizational characteristics and satisfaction levels of rural nurses in the northwestern United States (Molinari & Monserud, 2008). The opportunity to work straight days, work hours, nursing peers and relationships with physicians emerged as the most important factors to job satisfaction. Opportunity to work part time was the least related to satisfaction, but was still high in their study (Molinari & Monserud, 2008). In our investigation, not having full-time employment was highlighted by those interviewed as one of the issues that would force nurses to seek employment elsewhere. Likewise, the ‘limiting nature of rural nursing structure’ was a theme that emerged as a barrier to retention in a qualitative descriptive study of rural healthcare managers in Newfoundland and Labrador (Alyward, Gaudine, & Bennett, 2011). The limited number of full-time positions in rural areas of the province was cited as an example of this structural barrier.

The authors of a study undertaken in rural southwestern Ontario between 2002 and 2004 identified a similar finding, with only 46% of rural nurses having full-time jobs, which led to job dissatisfaction (Baumann, Hunsberger, Blythe, & Crea, 2006; Hunsberger et al., 2009). In a 2007 qualitative study (n=21), rural nurses in the Niagara region of Ontario also reported concerns with lack of full-time employment (Montour, Baumann, Blythe, & Hunsberger, 2009). These findings are in contrast to an earlier comprehensive survey of heath service agencies in

northeastern Ontario (Pong & Russell, 2003) that reported geographic isolation (66%), rural setting (57%), lack of opportunities for partners to work (42%), and lack of community support (27%) as the most often cited reasons why people (excluding physicians) did not accept employment. The rural southern Ontario settings utilized in our study, as well as those of Baumann and colleagues, are not as geographically isolated as northeastern Ontario, which presumably accounts for the difference in findings. Institutional factors such as staffing clearly influence levels of satisfaction and ultimately, may affect retention efforts and must be considered by nursing managers and executives.

Rural nurses in our study described the roles they undertook; in particular, they highlighted the need for teamwork, the breadth of their responsibilities, and the need to *'switch gears'* during a shift. While several posited that rural nursing was a nursing specialty, no participants specifically referred to a 'generalist-specialist' role, a finding that Molanari and colleagues (Molanari, Jaiswal, & Hollinger-Forrest, 2011) also noted in their investigation of 106 enrollees of a rural nurse residency program in northwest United States. What did emerge in our study, however, was a sense of being misunderstood by their urban counterparts. Interestingly, Hunsberger et al. (2009) reported that the rural nurses in their Ontario study "…*felt demeaned because staff at tertiary care settings did not appreciate the challenges of transporting unstable patients*…(p. 21)." Jackman and colleagues (Jackman, Myrick, & Yonge, 2010) argue that rural nursing needs to be acknowledged as important, by other nurses, decision-makers and by governments, otherwise, marginalization of rural nurses will ultimately affect the rural populations they serve.

A recent systematic review that drew upon five previous systematic reviews (i.e. umbrella review) on rural nurse retention summarized the strength of the evidence for effective retention

strategies (Mbemba, Gagnon, Pare, & Cote, 2013). The authors developed a taxonomy of rural nurse interventions consisting of four categories: i) Education and continuous professional development; ii) Regulatory; iii) Financial incentives; and, iv) Personal and professional support (p. 7). Strategies that address personal and professional support had either strong or moderate evidence. For instance, strong evidence was found for investing in rural infrastructure, such as water supply, roads, and housing. Attempts to reduce nurses' feelings of professional isolation through telehealth communications and the provision of supportive supervision through such means as mentoring, preceptorship or clinical supervision garnered moderate evidence as interventions. Regulatory interventions, such as recognizing overseas qualifications, had low evidence, whereas the strength of the evidence for financial incentives to nurses to work in rural and remote areas ranged from low to moderate.

The review found moderate support and evidence for educational interventions in rural retention. Educational strategies that have been implemented in rural and remote settings include the targeted recruitment of students from, and education within, rural areas (Norbye & Skaalvik, 2013; Playford, Wheatland, & Larson, 2010) as well as continuing education assessments and professional strategies (Banks, Gilamrtin, & Fink, 2010; Fairchild et al., 2013; Healey-Ogden, Wejr, & Farrow, 2012; MacLeod, Lindsey, Ulrich, Fulton, & John, 2008). Our interventions focused on educational gaps that had been identified by the staff nurses in three of the five rural community hospitals, and can be classified as support for continuous professional development, as outlined by Mbemba and colleagues (2013). There is growing acknowledgment that numerous educational strategies, including exposure to rural clinical settings in basic nursing programs, should be employed to attract and to keep nurses in rural communities (Hunsberger et al., 2009; Lenthall et al., 2009; Molanari et al., 2011). The importance of tailoring nursing interventions,

including educational opportunities, based on the size of a rural hospital and its contextual factors was identified in a national sample of 280 rural hospital nurse executives in the United States (Newhouse, Morlock, Pronovost, & Sproat, 2011). In particular the authors suggested the use of clinical ladders in promoting staff development in smaller, rural hospitals.

Although autonomy in practice did not emerge as a finding in the umbrella review, in a significant study of over 3,000 rural and remote nurses in Canada (Stewart et al., 2011), satisfaction with autonomy was the only significant predictor of intention to remain in practice. We did not gather information about autonomy, but compared to Stewart and colleagues' finding of 17% of rural and remote nurses' intention to leave within a year, only 4% indicated likewise in our sample. None of the rural workplaces in the present study are considered remote, a factor that contributed to the intention to leave in Stewart and colleagues investigation. One of the critical factors emerging in the rural nursing literature is the importance of community satisfaction in the retention of rural nurses (Bratt et al., 2014; Kulig et al., 2009; Manahan & Lavoie, 2008; Molanari et al., 2011; Stewart et al., 2011). This finding has not been observed in studies of urban-based nurses.

Limitations of our study include the convenience survey sampling, lack of retention data from the hospital corporations, and the inability to fully implement educational initiatives in all study sites**.** Our findings, similarly, are not generalizable, given the small number of institutions involved. Participant observation and our partnering with hospital nurse executives, however, provided solid footing for interpreting the interviews within a rural context.

Implications for Nursing Education, Practice and Research

Educational institutions strive to ensure that their nursing programs matriculate practitioners who are equipped to deal with the realities of practice; yet, the gap between

education and practice continues. While not tested in this study, it could be hypothesized that those nursing programs that actively consult and engage with practice partners are more likely to instill clinical competence and confidence in their students, providing a solid basis to practice regardless of the setting. Once in practice, maintaining and updating clinical knowledge and skills can be a struggle for rural nurses and their managers, as access to relevant courses and programs may be limited. Continuing professional development that is ongoing and relevant to the clinical realities of rural practice requires innovative strategies between educational institutions and rural healthcare facilities.

Rural nurse managers and administrators should view a healthy workplace environment as a part of a successful retention strategy. Furthermore, there is emerging literature to support the premise that enhancing local infrastructure in rural communities contributes to retention efforts (Buykx, Humphreys, Wakerman, & Pashen, 2010). Rural healthcare administrators can be influential by advocating for community quality improvements at the local level. The multiple factors influencing nursing retention in rural communities are beginning to be elucidated, but more research is needed to define and clarify our understanding.

Conclusion

The five-site research study sought to find modifiable factors to maintain rural nursing competence that would potentially enhance nursing retention in small rural hospitals. We identified key areas that support previous findings identified in the literature; however, the overall intention to leave the workplace was low compared to other reports, despite the relatively low full-time employment status of nurses. Community social relationships, such as family connections, played a large role in the decision to remain amongst those interviewed. Rural and remote nursing practice is shaped by a myriad of community factors, and it important to

distinguish that rural is distinct from remote (Martin Misener et al., 2008). Ultimately, it is the unique qualities of a community that require attention in both rural recruitment and retention efforts.

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