DIFFERENCES IN AUTONOMY AND NURSE-PHYSICIAN INTERACTION AMONG RURAL AND SMALL URBAN ACUTE CARE REGISTERED NURSES IN CANADA

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ABSTRACT

In a secondary analysis of a national survey of Registered Nurses (RNs) working in rural and remote Canada, two groups of acute care nurses were compared on the work satisfaction variables of autonomy and nurse-physician interaction based on whether their workplace community population was rural (10,000 or less) or small urban (>10,000 but <100,000). For this analysis, the variable "size of community" served as a proxy indicator for hospital size. Kanter's (1993) theory on the structure of power in organizations was the basis of the hypotheses. As predicted, the rural RNs (n=811) working in the smaller hospital organizations had significantly higher levels of autonomy [$F(1, 1229)= 5.602$, $p<0.05$] and higher levels of nurse-physician interaction [$F(1, 1229)=27.78$, $p<0.001$] than the small urban RNs (n=427). The findings suggest that the size of an organization or hospital setting does have an influence on the level of autonomous practice and interaction between nurses and physicians.

INTRODUCTION

Health reform in the 1990's in Canada created many challenges for nursing practice, the most important being the nursing shortage that is projected to increase over the next decade (Advisory Committee on Health Human Resources [ACHHR], 2002; Baumann et al., 2001). Nursing practice settings that may be the most affected by this projected shortage are hospitals, specifically those within rural and remote areas of Canada. Registration data shows that the majority of rural RNs in Canada (54%) practice within general hospital settings (Canadian Institute for Health Information [CIHI], 2002). In addition, the rural RN workforce is aging; the average age of RNs increased from approximately 40.6 years in 1994 to 43 years in 2000 (CIHI, 2002). As a result, one of the main challenges facing the Canadian health care system is the recruitment and retention of professional RNs in rural and remote hospital settings.

In a summary report on health human resource planning in Canada, it was stressed that the propensity for nurses to leave the profession appears to be related to nurses' job satisfaction and the quality of their work environments (Fooks et al., 2002). Higher levels of RNs' job satisfaction as well as recruitment and retention have been directly linked to practice environments that encourage professional nurse autonomy, and collaboration between nurses and physicians (Keuter et al., 2000; Rafferty et al., 2001; Rosenstein, 2002). This research involves an examination of the work satisfaction variables of professional nurse autonomy and nurse-physician interaction from the perspective of rural and small urban RNs in Canada. The data for this study were drawn from a large national survey of RNs in rural and remote Canada (Stewart et al., 2005).

BACKGROUND

Magnet Hospital Characteristics

With a recent rise in community opportunities for RNs, hospitals are increasingly ill-equipped to compete for the recruitment and retention of the most qualified professional RNs (Aiken et al., 2001). The increased job dissatisfaction of RNs related to inadequate collaboration, lack of respect from physicians, and lack of a strong professional practice environment can be seen as a threat to the retention of RNs (Mee & Robinson, 2003; Upenieks, 2003a). During the 1980's, a group of American hospitals were labeled "magnet hospitals" due to their ability to attract and retain professional nurses during a national nursing shortage (Havens & Aiken, 1999; McClure et al., 1983; Scott et al., 1999). The organization of nursing within magnet hospital settings has consistently demonstrated three core features that are key to professional nursing practice. These include professional nurse autonomy, nursing control over the practice environment, and collaborative nurse-physician relationships (Aiken et al., 1994; Havens & Aiken, 1999; Scott et al., 1999; Upenieks, 2002). It has been found that within magnet hospital environments that support these core features, nurses have higher levels of job satisfaction and are attracted to, and stay within, these environments (Havens & Aiken, 1999; Scott et al., 1999, Upenieks, 2003b). Unfortunately, the majority of studies on magnet hospitals have been conducted within urban environments and little is known about magnet hospital characteristics within rural hospital settings.

Characteristics of Quality Workplaces

A review of the literature has identified that professional nurse autonomy, and collaborative interactions between nurses and physicians, have a significant influence on the quality of the work environment for RNs (McGillis Hall, 2005). Within the Canadian context, attributes that enhance RN worklife have been identified that are similar to the characteristics of magnet hospitals. Increased nurse autonomy in patient care as well as collaboration with other professionals, particularly physicians, has been shown to improve Canadian nurses' job satisfaction (Freeman & O'Brien-Pallas, 1998; Laschinger et al., 2003; O'Brien-Pallas & Baumann, 2000). It has also been suggested that dedication to improving aspects of nursing worklife such as increasing professional nurse autonomy and nurse-physician collaboration, leads to success in recruiting and retaining nurses over time (Fooks et al., 2002). Baumann et al. (2001) pointed out that nurses are more satisfied with their jobs and more loyal to their employers when they are respected for their expertise and are able to provide input within their full scope of practice. Regrettably, the bulk of Canadian research on characteristics of healthy workplaces has been conducted within mainly urban settings (Blythe et al., 2001; Burke & Greenglass, 2000; O'Brien-Pallas & Baumann, 1992). As a result, little is known about healthy workplace characteristics of autonomy and nurse-physician collaborative interaction in rural and small urban hospitals from a national perspective.

Comparisons Based on Size of Hospital or Nursing Unit

Coward et al. (1992) found that of 731 nurses working in rural Florida, those working in smaller hospitals (i.e., 1-49 beds) were shown to have significantly higher scores for autonomy

than those working in medium sized hospitals (i.e., 50-100 beds) and large hospitals (i.e., 100+ beds). Although not statistically significant, the trend in the research also suggests that the RNs working in the smallest hospitals may have more collaborative interactions between nurses and physicians when compared to the RNs working in the medium and large hospitals. However, the results were not conclusive and therefore further comparative study is necessary to substantiate the research evidence. Mark et al. (2003) conceptualized professional nursing practice as a hidden construct that is defined by decentralization, enhanced nursing autonomy, and collaborative relationships between nurses and physicians. They compared results between size of hospital units and found that acute care RNs from smaller units were more satisfied and reported enhanced levels of professional nursing practice, and that larger unit size was associated with lower levels of satisfaction for both nurses and patients. Unfortunately, the researchers did not report the actual differences in the level of autonomy and nurse-physician interaction based upon size of hospital unit. Shamian et al. (2002) aggregated 6,188 individual responses of Ontario acute care RNs, and used this to generate hospital-level measures of magnet hospital characteristics. Although not statistically significant the pattern in the research suggests that the smaller hospitals may have better nurse-physician relationships than community hospitals (i.e., medium sized hospitals) and teaching hospitals (larger sized hospitals), and higher levels of autonomy than community hospitals. While differences were modest, stronger differences in favor of smaller hospital settings may have been observed if 19 of the smallest hospitals, accounting for close to 500 RNs had not been excluded from the final analysis.

In general, there appears to be limited comparative research available on the job satisfaction attributes of autonomy and nurse-physician interaction of rural and small urban hospital RNs in Canada. The few Canadian studies that included rural hospital RNs in their study (Laschinger et al., 2001; Shamian et al., 2002) were conducted at a provincial level and therefore do not provide a broad understanding of Canadian RNs who practice within rural and small urban hospital settings. Even though increased satisfaction with professional autonomy and more positive interactions between nurses and physicians have been linked to nurse recruitment and retention, there is a paucity of literature available on these variables within rural hospital settings in Canada. Although it may appear that RNs working within smaller hospitals or smaller nursing units have higher levels of autonomy and more collaborative relationships with physicians, the research evidence to support this trend is limited. Further study of Canadian hospital RNs working in rural and small urban communities are necessary to determine if there are differences in their perceived autonomy and nurse-physician interaction.

THEORETICAL FRAMEWORK

Kanter's (1977, 1993) theory on the structure of power in organizations was the basis of hypotheses for the present study. Kanter (1977, 1993) emphasized that when people have more power and control over the conditions of their work environment, under these conditions, people will experience higher levels of autonomy and will have more participation in organizational decisions. Kanter (1977. 1993) made reference to the importance of the size of an organization and stressed that in larger, more complex hierarchical environments people become dependent on those who control important contingencies and have more personal power (i.e., more personal influence within organizations). Physicians within larger hospital organizations may have higher levels of personal power related to contingencies controlled, and may experience dependency behavior from RNs. Physicians who have more personal power in larger organizations may also

be less inclined to develop more collaborative interactions with their RN colleagues. The opposite is also true that dependency is reduced in smaller organizations where people can work more autonomously and have greater decision making latitude (Kanter, 1977, 1993).

THE STUDY

Aim

The aim of this analysis was to determine if there are differences in the level of autonomy and nurse-physician interaction between RNs working in rural and small urban hospitals. Based on Kanter's (1977, 1993) structure of power in organizations, it was hypothesized that (1) RNs working in rural communities within smaller hospital organizations would have higher levels of autonomy than RNs working in small urban communities within larger hospital organizations; and (2) RNs working in rural communities within smaller hospital organizations would have more positive interactions with physicians, than RNs working in small urban communities within larger hospital organizations.

Design

The data examined in this paper were drawn from a cross-sectional survey of rural and remote RNs in Canada. The survey method and questionnaire design used to collect the data were based on a modified version of Dillman's (2000) Tailored Design Method. The survey was part of a multi-method study (MacLeod et al., 2004) examining the nature of nursing practice in rural and remote Canada (also see CIHI, 2002; Kulig et al., 2003). Detailed information regarding the survey methods, procedures, and data collection can be found in Stewart et al. (2005).

The present study is a secondary analysis of the national survey of rural and remote RNs (Penz, 2006). In this analysis, two groups of acute care RNs were compared based on whether their workplace community population was rural (10,000 or less) or small urban (>10,000 but < 100,000), which served as a proxy indicator for size of hospital. In the rural study conducted by Stratton et al., (1998), it was supported that hospital size is a valid proxy for community size. Therefore, it was inferred that rural size of community (population 10,000 or less), would have smaller hospital organizations than small urban size of community (population >10,000 but <100,000).

Participants

The national survey included a stratified random sample of RNs living in rural areas in all the Canadian provinces, as well as the total population of RNs who worked in the Yukon, Nunavut, and Northwest Territories, and nursing station/outpost settings. A total of 3933 usable questionnaires were returned between October 2001 and July 2002, resulting in a 68% response rate (Stewart et al., 2005). The acute care hospital RN sample for this analysis included the 1238 RNs who defined their work setting as a "general hospital" and their primary area of practice as "acute care". This provided a homogeneous sample based on practice area and represented RNs from this work setting in all the provinces and territories in Canada.

To provide for appropriate comparisons between smaller communities, "rural communities" were defined using the Statistics Canada definition of "Rural and Small Town" as those communities outside of the commuting zone of centers with a population of 10,000 or more (du Plessis et al., 2001). The "small urban" communities were defined using the Statistics Canada "Census Agglomeration Area", which includes communities with populations greater than 10,000 but less than 100,000 (CIHI, 2002; du Plessis et al., 2001). Based on these designations, the acute care RN sample was categorized according to those who work in communities with a population of 10,000 or less, which represented rural hospital acute care RNs (n=811), and those working in communities with a population greater than 10,000 which represented small urban hospital acute care RNs (n=427).

Measures

Stamps' (1997) Index of Work Satisfaction (IWS) is a 30-item scale, with each item scored on a 7-point Likert scale. The IWS includes seven subscales of work satisfaction, as well as measurement of the perceived importance of each subscale. The national survey adapted a version of the IWS by reducing each subscale to five items, which was then embedded into the questionnaire (Stewart et al., 2005). The autonomy subscale and the Nurse-Physician Interaction subscale from the Index of Work Satisfaction (Stamps, 1997) were used to test the hypotheses that were proposed for this analysis. Each subscale contained five items and was summated to give a possible range of scores from 5 to 35, with a higher score representing higher autonomy or higher nurse-physician interaction.

Validity and Reliability

Content validity for the original survey was determined through pilot testing of the overall survey and embedded scales, as well as through consultation with expert researchers, advisors and RNs who practice in rural and remote areas of Canada (Stewart et al., 2005). The internal consistency reliability was replicated for the adapted IWS embedded within the survey questionnaire and achieved adequate reliability compared to previous studies reported in Stamps (1997). Considering the national survey administered the modified IWS to RNs in many different practice areas (e.g., public and community health, home care, hospitals, long term care), it was originally thought that this may have lowered estimates of internal consistency. For this reason the internal consistency reliability was also replicated for the present acute care sample. As anticipated the Nurse-Physician Interaction subscale for the acute care sample achieved a higher alpha of 0.88, which is comparable to other studies ranging from 0.77-0.84 (Stamps, 1997; Stewart et al., 2005). In contrast, reliability results were substantially lower for the Autonomy subscale for the present acute care sample with an alpha of 0.58, compared to other studies ranging from 0.66-0.76 (Stamps, 1997; Stewart et al., 2005).

Ethical Considerations

Approval for the national survey was obtained from the Behavioral Research Ethics Board of the educational institution that conducted the study. Participation was voluntary and potential participants were given an information letter explaining the study. The return of a completed questionnaire after reading the letter constituted implied consent for this study. The

letter requested participation in the study, explained how participants were selected, the value of participating in the study, as well as confidentiality of responses and guarantee of anonymity. Anonymity was also maintained by requesting each provincial/territorial nursing association to select all outpost nurses and a random sample of RNs, using postal codes to identify rural residence (Stewart et al, 2005). In the 4 out of 10 instances where the provincial/territorial nursing associations (Newfoundland, Nova Scotia, British Columbia, and Ontario) did release the names and addresses of members to the research team, a contract to protect confidentiality was implemented (Stewart et al., 2005).

Data Analysis

Descriptive statistics were used to describe the region of residence, demographic, and employment characteristics for the rural and small urban RN participants. Since selection bias could be a threat to the internal validity of the proposed research design (Burns & Grove, 2005; Cook & Campbell, 1979), groups were also compared on participant characteristics. Analysis of variance (ANOVA) was used to test the hypotheses that were proposed for the present study. This analysis was accomplished using the Statistical Package for Social Sciences (SPSS) 13.

RESULTS

Sample Characteristics

As can be seen in Table 1, the sample of acute care hospital RNs represented nurses from all of the provincial and territorial regions in Canada. Table 2 describes the demographic and employment characteristics of the 811 rural and the 427 small urban hospital acute care RN participants from the national survey. In general, the rural and small urban RNs represented an aging population and when compared, were similar on most sample characteristics including gender, years licensed to practice, marital status, dependent children or relatives, and employment status. The majorities of both rural and small urban RNs were women (97% and 95.6%), reported being married or common law (84.3% and 86.4%), and had dependent children or relatives (61.5% and 64.9%).

Some significant differences were observed when comparisons were made between the two groups. There were a greater proportion of rural RNs (12.0%) aged 55 years and over, when compared to the small urban RNs (6.8%). An independent sample t-test conducted for age revealed that the rural RNs (M = 42.9, SD = 9.3) were significantly older [$t(1225)=2.52$, $p < 0.05$] than the small urban RNs (M = 41.4 , SD = 8.9). Although the majority of both rural and small urban RNs had attained a diploma as their highest level of nursing education, there were a significantly greater proportion of small urban RNs who had attained a higher level of nursing education. Specifically, almost 22% of the small urban RNs had attained a degree in nursing (i.e., Baccalaureate, Master or Ph.D.), with only 15% of rural RNs attaining the same level of education. Groups were also compared on type of shifts worked (this analysis included those RNs that worked either strictly 8-hour or 12-hour shifts). There were a significantly greater proportion of rural RNs (34.9%) that worked 8-hour shifts exclusively when compared to the small urban RNs (29.0%) that worked the same length of shift.

Table 1

Region of Residence of Rural and Small Urban Acute Care RNs in Canada

Region of Residence	Rural (n=811) n (%)	Small Urban (n=427) n (%)	Total Acute Care Sample (N=1238) N (%)
Atlantic provinces	284 (35.0)	138 (32.3)	422 (34.1)
Quebec/ Ontario	102 (12.6)	82 (19.2)	184 (14.9)
Manitoba/ Saskatchewan	181 (22.3)	46 (10.8)	227 (18.3)
Alberta/ British Columbia	203 (25.0)	58 (13.6)	261 (21.1)
Northern Territories and Nunavut	41 (5.1)	102 (23.9)	143 (11.5)
Missing	----------	1 (0.2)	1 (0.1)
Total	811 (100)	427 (100)	1238 (100)

Autonomy and Nurse-Physician Interaction Comparisons

A total of 1231 acute care hospital RNs provided responses for both the autonomy subscale and the nurse-physician interaction subscale. The mean score of the autonomy subscale for the acute care sample was 23.2 (SD=4.9) with a range in scores from 6 to 35. The nurse-physician interaction subscale showed similar results with a mean score of 23.9 (SD=6.6) and a range in score from 5 to 35 for all acute care participants. In order to make comparisons between groups, two one-way ANOVAs were conducted using community size (rural vs. small urban) as the between-subjects factor. In the first ANOVA, the dependent variable was the participants' scores on the Autonomy subscale of the Index of Work Satisfaction (Stamps, 1997). In the second ANOVA, the dependent variable was the participants' scores on the Nurse-Physician Interaction subscale of the Index of Work Satisfaction (Stamps). The assumptions of ANOVA were met for both analyses.

As predicted in the first hypothesis, the mean scores for the autonomy subscale were statistically significantly higher [$F(1, 1229)= 5.602$, $p<0.05$] for the rural acute care RNs who worked in the smaller hospitals (n= 807, M=23.44, SD=4.86) than for the small urban RNs who worked in the larger hospitals (n= 424, M=22.74, SD=5.04). As predicted in the second hypothesis, the mean scores for the nurse-physician interaction subscale were also significantly higher [$F(1, 1229)=27.78$, $p<0.001$] for the rural acute care RNs who worked in the smaller hospitals (n=807, M=24.57, SD=6.38) than for the small urban RNs who worked in the larger hospitals (n=424, M=22.5, SD=6.61) (See Table 3). The hypotheses that were proposed for this study were both supported by the above statistical analyses.

Table 2

Sample Characteristics of Rural and Small Urban RNs

Characteristic	Rural RNs (n=811) n (%)	Small urban RNs (n=427) n (%)	χ^2	*p*
Age (years)				
< 25	16 (2.0)	9 (2.1)		
25-34	154 (19.0)	94 (22.0)		
35-44	270 (33.3)	160 (37.5)		
45-54	267 (33.0)	130 (30.4)		
55 and over	98 (12.0)	29 (6.8)	10.89	.028
Missing	6 (0.7)	5 (1.2)		
Gender				
Female	787 (97.0)	408 (95.6)		
Male	24 (3.0)	18 (4.2)	1.36	.243
Missing	-------	1 (0.2)		
Highest Attained Nursing Education				
Diploma	680 (83.8)	330 (77.3)		
Baccalaureate/Master or PhD	124 (15.3)	91 (21.3)	7.32	.007
Missing	7 (0.9)	6 (1.4)		
Years Practiced (years)				
1-10	192 (23.7)	106 (24.8)		
11-20	253 (31.2)	156 (36.5)		
21-30	249 (30.7)	121 (28.3)		
31 and over	111 (13.7)	42 (9.8)	6.43	.092
Missing	6 (0.7)	2 (0.5)		
Marital Status				
Married/Common Law	684 (84.3)	369 (86.4)		
Single/Divorced/Widowed	125 (15.4)	57 (13.4)	0.952	.329
Missing	2 (0.3)	1 (0.2)		
Dependents (children or relatives)				
Yes	499 (61.5)	277 (64.9)		
No	309 (38.1)	147 (34.4)	1.52	.217
Missing	3 (0.4)	3 (0.7)		
Nursing Employment Status (Those that chose one employment status)				
Full-time permanent	376 (46.4)	192 (45.0)		
Part-time permanent	237 (29.2)	139 (32.6)		
Job share/ Casual/ Contract/ term	98 (12.1)	54 (12.6)	1.007	.604
Missing	100 (12.3)	42 (9.8)		
Type of shifts worked (Those who work 8-hr vs. 12-hr shifts)				
8-Hour shifts	283 (34.9)	124 (29.0)		
12-Hour shifts	390 (48.1)	237 (55.5)	5.839	.016
Missing	138 (17.0)	66 (15.5)		

Table 3

Differences in Autonomy and Nurse-Physician Interaction Between Rural and Small Urban Hospital Settings

	Size of Hospital			
	Rural (n=807)	Small Urban (n=424)	F	*p*
Index of Work Satisfaction (IWS)				
Autonomy Subscale				
M	23.44	22.74		
SD	4.86	5.04	5.60	.018
Nurse-Physician Interaction Subscale				
M	24.57	22.50		
SD	6.38	6.85	27.78	.000

DISCUSSION

The aging workforce of rural and small urban RNs presents a multidisciplinary challenge for the recruitment and retention of rural and small urban hospital nursing professionals. It has been suggested that the issue of early retirement of the first wave of Baby Boomers is already affecting the supply of members from many professional groups including nurses (O'Brien-Pallas et al., 2004). The matter of early retirement in rural and small urban areas may be more of an issue due to the fact that an adequate supply of younger RN replacements may not exist in these isolated areas. It has been estimated that by 2006, Canada is projected to lose the equivalent of 13% of the 2001 nursing workforce through retirement at age 65 (O'Brien-Pallas et al., 2003). Due to the fact that many health professional retire before the age of 65, these losses are projected to increase to 28% of the 2001 nursing workforce if nurses choose to retire at the age of 55 (CIHI, 2005). This projected nursing shortage is predicted to have a potentially dramatic effect in the rural regions of Canada (Kulig et al., 2003). It is difficult to predict what impact these losses to the nursing workforce may have on the provision of quality healthcare in the rural areas of Canada. However, it can only be assumed that the significant decreases in the supply of these RNs would negatively affect the rural access to quality care and therefore this issue must be addressed at a national level.

Studies that have focused on rural samples of hospital RNs have consistently found that aspects of work satisfaction such as higher autonomy and collaborative interaction between nurses and physicians are important for the retention of rural RNs (Hanson et al., 1990; Hegney et al., 2002; Pan et al., 1995). National recognition and support of these aspects related to quality work environments may actually help retain those RNs who are in the higher age categories. O'Brien-Pallas et al. (2004) emphasized that the factors that foster job enrichment and increase challenges in a nursing position may be significant in the retention of nurses who are closer to retirement age. The increased challenge that autonomous nursing practice and more collaborative

nurse-physician interaction can provide to the aging nursing workforce, is a retention strategy that should be focused on within rural and small urban acute care environments.

Another challenge that exists at a national level is the need for a new generation of rural and small urban acute care RNs to replace the nurses that will be lost due to retirement and migration to other practice areas. Increasing the enrollment in nursing schools is one strategy that is being used to ensure that an adequate supply of qualified RNs are available to counteract the present nursing shortage in Canada (ACHHR, 2002). Unfortunately, an increase in the number of RNs who have been educated mainly within urban areas may not improve the supply of RNs who are prepared to work in the rural and small urban areas of Canada. Policy development at a national level could ensure that nursing students have adequate opportunities to enhance their nursing education with rural and small urban acute care experiences. In an Australian study, it was found that the students who had rural clinical placements rated themselves as more confident, competent and organized than the students that had strictly urban placements (Edwards et al., 2004). The choice of rural and small urban acute care practicum placements would introduce nursing students to the autonomous and collaborative type of practice that rural nursing has to offer as well as enhance their level of nursing competence and organizational skill. Recruitment efforts may be more successful with the new nursing graduates who have already experienced the higher levels of autonomy and improved working relationships between nurses and physicians that are present in rural acute care settings.

The findings of the present study suggests that size of an organization or hospital setting may have an influence on the level of autonomous practice that is perceived by the RNs and also has an influence on the level of interaction between nurses and physicians. Kanter (1977, 1993) stressed that greater independence and access to power structures (i.e., autonomy) are present in smaller organizations that have less hierarchical organizational structures. Kramer et al. (2003) emphasized that nursing autonomy must have something to do with bureaucracy and hospital size. Many of the nurses in their qualitative study emphasized that as their organizations merged and became bigger, they perceived that they lost their autonomy (Kramer et al., 2003). It would be expected that smaller hospital organizations located in rural communities would have fewer RNs on staff and fewer physicians on-site than larger urban settings. This would likely mean that there would be a flatter hierarchical structure present in smaller hospital settings, which would result in more independent, and autonomous practice opportunities for RNs working within these smaller organizational settings. Kanter (1977, 1993) pointed out that having the chance to engage in non-routine work, to show independent judgment, to take risks and become well known within the work environment are all less available in larger organizations. For the present study, rural RNs from the smaller hospital settings may have had less routine work, more opportunities to make independent judgments, and increased participation in risk taking behavior than their small urban counterparts. All of these factors may account for the higher satisfaction with autonomy that was found for the rural RNs from the smaller organizations when compared with the small urban RNs from the larger organizations.

Kanter (1977, 1993) also emphasized that in larger, more hierarchical organizations; individuals can become dependent on those who have more personal power and who control important contingencies (i.e., have more personal influence within organizations). In many larger, more complex hospital organizations, physicians may still maintain high levels of personal power and therefore RNs within the small urban settings may be more dependent on physicians to make the important decisions within the practice environment. This does not mean that small urban RNs have no access to power structures, but they may have to contend with

greater hierarchical levels then rural RNs, as well as the resulting dependency problems that tend to occur within a larger organizational structure. It may be that RNs in the smaller hospital settings have decreased levels of organizational dependency on physicians, which they might obtain by accessing their own levels of personal power and by bypassing the hierarchy present in larger hospital settings. These factors may account for the higher satisfaction with collaborative interaction between nurses and physicians that was found for the RNs in the smaller rural hospital settings when compared to the RNs working in the larger, small urban hospital settings.

Related to organizational size, it may be possible that the nature of nursing practice may be different in the smaller rural hospitals when compared to the larger hospitals in the small urban communities. Coward et al. (1992) suggested that nurses in smaller hospitals do things differently than their counterparts in larger hospitals; that their hospital nursing positions are organized differently, time is spent on different tasks and interpersonal relationships with coworkers are also different. Hansen et al. (1990) suggested that rural nursing settings are culturally unique and are characterized by an approach to practice requiring a generalist perspective. The nursing culture and generalist perspective that are unique to rural nursing practice may have played a role in the higher satisfaction with autonomy and nurse-physician interaction that was observed for the RNs working in the smaller rural hospital settings. It is evident in the literature that nurses in small rural hospitals must have a broad knowledge base and that they must practice as expert generalists (Bushy & Bushy, 2001; Rosenthal, 1996). Kanter (1977, 1993) stressed that although the accumulation of power in an organization is closely tied to the formal position that an individual attains within a hierarchy; having competence within this position is also imperative. Provision of care in smaller rural hospital settings would require that RNs practice with use of advanced assessment and judgment skills. Rural RNs working in these environments would have the responsibility to ensure that they maintain high levels of nursing competency. In the study of rural RNs by Bushy and Banik (1991), it was found that the nurses who had the most variety in their nursing roles (generalist practice) had higher levels of work satisfaction than the nurses who worked in less diverse roles.

Although it is not possible to assess possible differences in the routine nature of the work between rural and small urban hospital settings, there may be differences in the nature of practice between the different sizes of hospitals. The small rural hospitals may require that individual RNs take on more leadership roles, and fulfill a diversity of practice roles that may not be expected of an RN that works in a larger hospital in a small urban setting. These additional roles that are performed may not only give rural RNs the opportunity to practice with a higher level of autonomy, but may also make them more visible to other health care professionals. These autonomous nursing roles may have a positive effect on the level of recognition and respect that rural RNs are given, and may improve the interactions that occur between nurses and physicians. These factors may have had an influence on the higher satisfaction with autonomy and nurse-physician interaction that was observed for the rural acute care hospital RNs.

CONCLUSION

The results of this study have added to the limited knowledge on the nature of acute care nursing practice in rural and small urban hospital settings in Canada. Similar to the total population of Canadian RNs, it has been established that the rural and small urban acute care RNs of Canada are an aging nursing workforce. The reality of this aging workforce raises many concerns related to the ongoing recruitment and retention of qualified RNs, as well as the

sustainability of quality health care in the rural and small urban regions of Canada. The quality of nurses' work environments must be addressed if rural and small urban hospital settings are to maintain their nursing workforce in the future.

As outlined previously, quality nursing work environments have been consistently linked to having more autonomous practice and more positive interactions between nurses and physicians. As well, these characteristics have been linked to RNs' work satisfaction and nursing recruitment and retention. The results of this study suggest that RNs who practice in smaller, rural hospital organizations have higher levels of nursing autonomy and more interactive relationships with physicians. This higher RN satisfaction with autonomy and nurse-physician interaction that was found in the rural acute care settings must be acknowledged in Canada, and possible reasons for these differences must be explored further. Organizational size may not only have an influence on the structure of power that is present within hospital settings, but may also have an effect on the nature of nursing practice that is integrated by hospital organizations that differ in size. The commitment to the recognition and development of the advanced nursing skills necessary for rural and small urban acute care practice will ensure that future RNs have continued access to quality nursing environments.

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