

Définir le rôle des infirmières praticiennes en soins primaires dans les régions rurales de la Nouvelle-Écosse

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Cet article présente une étude fondée sur des méthodes mixtes visant à définir le rôle des infirmières praticiennes (IP) dans les régions rurales de la province de la Nouvelle-Écosse au Canada. On a recueilli des données qualitatives par le biais d'entrevues téléphoniques auprès des présidents de conseils de santé, ainsi que des données quantitatives au moyen d'un questionnaire auquel ont répondu des IP, des médecins de famille, des infirmières de santé publique et des infirmières familiales. Les auteures décrivent le point de vue des répondants sur les besoins des communautés rurales en matière de santé; les lacunes relevées dans le modèle actuel de services de soins primaires; le rôle professionnel envisagé pour les IP dans les régions rurales et les facteurs qui facilitent ou entravent son établissement. Pour tirer le meilleur profit des avantages que présente cette fonction pour les populations des communautés rurales, il faudra prêter attention aux obstacles qui nuisent à son déploiement et à son intégration.

Mots clés : infirmières praticiennes, soins de santé primaires, rôle professionnel

Defining the Role of Primary Health Care Nurse Practitioners in Rural Nova Scotia

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This article reports on a mixed methods study to define the role of nurse practitioners (NPs) in rural Nova Scotia, Canada, by collecting the perceptions of rural health board chairpersons and health-care providers. Qualitative data were collected in telephone interviews with health board chairpersons. Quantitative data were collected in a survey of NPs, family physicians, public health nurses, and family practice nurses. The authors describe participants' perspectives on the health needs of rural communities, the gaps in the current model of primary health care services, the envisaged role of NPs in rural communities, and the facilitators of and barriers to NP role implementation. Optimizing the benefits of the NP role for residents of rural communities requires attention to the barriers that impede deployment and integration of the role.

Keywords: nurse practitioners, primary health care, rural health services, professional role

Introduction

Compared to their urban counterparts, the residents of rural Canada have higher overall mortality rates, higher rates of injury and poisoning, and higher rates of chronic diseases such as cardiovascular disease and diabetes (Canadian Institute for Health Information [CIHI], 2004; DesMeules et al., 2006). Rural residents generally have lower incomes, have less formal education, and are less likely to exhibit healthy lifestyle behaviours than residents of urban settings (DesMeules et al., 2006; Nova Scotia Department of Finance, 2003). For example, in comparison to urban residents, rural residents are more likely to use tobacco (Poulin & Wilbur, 2002), consume fewer fruits and vegetables (DesMeules et al., 2006), and have more problems with weight control (CIHI, 2003; DesMeules et al., 2006) and stress management (Hayward & Colman, 2003; Pahlke, Lord, & Christiansen-Ruffman, 2001). In addition to their health problems, rural populations have less access to primary health care (PHC) services than urban populations, in part because of travel distances but also because there are fewer family physicians (FPs) in rural areas than in urban areas (CIHI, 2005; Health Canada, 1992; Romanow, 2002). These

data have special relevance to Nova Scotia, where 39% of the province's 900,000 residents live in rural areas (du Plessis, Beshiri, Bollman, & Clemenson, 2002).

In response to these challenges, the last decade of Canadian health reform has emphasized the need for expanding the use of interdisciplinary teams to improve the accessibility and quality of PHC (Health Services Restructuring Commission, 1999; Hutchison, 2008; Romanow, 2002). This policy context revived government interest in the nurse practitioner (NP) role. Introduced in Canada during the early 1970s, the NP role was not sustained because of funding and other challenges (Haines, 1993; Spitzer, 1984) despite evidence that supported its effectiveness (Spitzer et al., 1974, 1975).

Recent efforts to integrate NPs into the Canadian health-care system have endeavoured to ensure that, this time, role integration will be successful (Canadian Nurse Practitioner Initiative [CNPI], 2006). To that end, a number of studies have advanced our understanding of the factors that influence NP role integration (Bryant-Lukosius & DiCenso, 2004; CNPI, 2006; DiCenso, Paech, & IBM Corporation, 2003).

Role definition is an important influencing factor for at least three reasons. First, it enables patients to be informed about the care providers that they select (DiCenso et al., 2003; Way, Jones, Baskerville, & Busing, 2001). Second, for health-care providers to work together effectively and harmoniously, their roles and responsibilities need to be clearly defined (Reveley, 2001). When roles are not clearly defined, role confusion can occur and lead to incomplete role implementation and deployment (DiCenso et al., 2003; MacDonald & Katz, 2002; Way et al., 2001). Third, the absence of a clearly defined role jeopardizes the evaluation of that role (Bryant-Lukosius & DiCenso, 2004).

Nova Scotia first considered the role of NPs in 1995 (Nova Scotia Department of Health, 1996). Evaluation of a pilot study found that patients were satisfied with the quality of NP services and that NPs increased health promotion and illness prevention and improved chronic disease management (Graham, Sketris, Burge, & Edwards, 2006; Nova Scotia Department of Health, 2004). Subsequently, the *Registered Nurses Act of 2001* established legal sanction of the NP role, including title protection. To practise, NPs required a formally approved collaborative practice agreement with one or more physicians (College of Registered Nurses of Nova Scotia [CRNNS], 2004).

This article reports on a mixed methods study intended to describe how rural health board chairpersons and health-care providers define the role of NPs in Nova Scotia. It summarizes their perspectives of the health needs of rural communities, the gaps in the current model of PHC serv-

ices, the envisaged activities of NPs, and the facilitators of and barriers to NP role implementation.

Methods

The conceptual framework for this study was the **Participatory, Evidence-Based, Patient-Centred Process for Advanced Practice Nursing Role Development, Implementation, and Evaluation** (PEPPA framework) (Bryant-Lukosius & DiCenso, 2004). The PEPPA framework provides a systematic, evidence-based approach to the implementation and evaluation of advanced practice nurses, including NPs. This process-based framework emphasizes identification of the health-care needs of a patient population, articulation of the goals for the NP role, and delineation of the role before evaluation. The involvement of stakeholders is regarded as critical for clarifying and gaining acceptance of the new role and addressing implementation barriers.

A mixed methods approach entails collection and analysis of more than one type of data, to ensure comprehensiveness, in-depth understanding, and credibility of the findings (Teddlie & Tashakkori, 2003). The study design was a triangulation model, meaning that qualitative and quantitative data were collected concurrently, given equal priority, and integrated into the results and discussion (Cresswell, Fetters, & Ivankova, 2004). Ethical approval was obtained from the research ethics boards at the University of Calgary and Dalhousie University as well as from Nova Scotia's nine district health authorities.

Purposive sampling (Patton, 2002) was used to select chairpersons of health boards in each district health authority, who were interviewed by telephone between May and September 2004. Each interview, approximately 1 hour in length, was audiorecorded and transcribed. Rural NPs, FPs, public health nurses, and family practice nurses were surveyed using a postal questionnaire. "Rural" was defined as a community with a core population of less than 10,000 outside the commuting area of a large urban centre designated as a census metropolitan or agglomeration area (du Plessis et al., 2002). FPs in rural settings who had hired or were known to consider hiring an NP were identified using information obtained from the College of Physicians and Surgeons of Nova Scotia. Rural nurse participants were identified using CRNNS registration information. Health-care providers employed by the Canadian Armed Forces were excluded because contextual differences in their organizational structure would have confounded the results. Based on these criteria, 11 NPs, 77 FPs, 90 public health nurses, and 50 family practice nurses were eligible to participate in the survey.

A questionnaire was developed based on an instrument used to assess the need for and role of NPs in the province of Ontario (Mitchell, Patterson, Pinelli, & Baumann, 1995). Items were added to reflect the spectrum of advanced nursing practice competencies (McMillan, Heusinkveld, & Spray, 1995). Content validity was established by an expert panel and the questionnaire was revised after piloting had identified concerns about length and complexity.

The questionnaire requested descriptive information about respondents and the PHC activities performed in their setting. To protect the anonymity of the small number of eligible NPs, detailed demographic data were not collected. The questionnaire comprised five sections: direct clinical care activities with individuals and families (66 questions), community activities (18 questions), research (8 questions), education (7 questions), and administration (8 questions). For each activity, respondents were asked to circle the answer that best identified the type of health-care provider currently performing the activity in their setting and then to circle the answer that best identified the type of health-care provider who, in their view, should be performing that activity. The activities included in the questionnaire — for example, prescribing of some of the drug categories — were deliberately not restricted to those within the scope of practice of NPs in Nova Scotia. Additional questions called for narrative comments on health needs and services in the respondent's setting, the roles of NPs and other nurses, and the barriers to NP role implementation.

Questionnaires were mailed to all eligible participants ($N = 228$) during June and July 2004 using established strategies to maximize response rates (Edwards et al., 2002). Non-responders were asked to complete and return a postcard that requested basic demographic information and their reason for not completing the questionnaire. From the data obtained on returned postcards ($n = 92$), it was determined that 26 respondents had received the questionnaire in error (Hidiroglou, Drew, & Gray, 1993). The most common reasons for not completing the questionnaire were insufficient time (59%) and lack of knowledge about the NP role (17%).

QSR NUDIST version 6 was used to assist with qualitative data management and content analysis. One researcher (RMM) coded the data into units of meaning, identified categories, and developed themes (Sandelowski, 2000). The coding structure was discussed with a second researcher (AV), and another researcher (NE) coded and analyzed one transcript to ensure consistency of coding. In addition to method triangulation, trustworthiness was enhanced through team discussions of the findings, including an explicit search for alternative interpretations of the data (Lincoln & Guba, 1985).

Quantitative data were analyzed using SPSS version 9.0. Accuracy of data entry approached 100%. Descriptive statistics were calculated on all categorical responses, and chi-square was used to determine whether there were differences by type of health-care provider (Ott, 1993). The data were analyzed for convergent, complementary, and contradictory findings (Erzberger & Kelle, 2003).

Results

Six female and three male health board chairpersons were interviewed. Each had between 3 and 5 years' experience in their role and most also had been previously involved in the health field. They described themselves as possessing a good knowledge of PHC services from having conducted community needs assessments, and many spoke of the importance of becoming familiar with the needs of the whole community.

The overall response rate to the questionnaire was 25% ($n = 51$); by group it was 64% for NPs ($n = 7$, of 11 surveyed), 19% for FPs ($n = 13$, of 69 surveyed), 27% for public health nurses ($n = 21$, of 78 surveyed), and 23% for family practice nurses ($n = 10$, of 44 surveyed). Approximately one third of respondents (37%) had previous experience working with an NP. Refusals were highest for the FP group (81.2%), slightly more than the overall refusal rate of 74.8%. However, more of the responding FPs (62%) were familiar with the NP role than either public health nurses (14%) or family practice nurses (20%).

The Need for a New Model of PHC in Rural Nova Scotia

Health board chairpersons reported that seniors accounted for over half of the residents in rural communities and that mortality, in combination with out-migration, had resulted in an overall decrease in the size of the population. Poverty, unemployment, and reliance on social assistance represented "probably the biggest single health threat" in virtually every jurisdiction. Other threats included cigarette smoking, poor nutrition, chronic disease, sexually transmitted infections, and stress and depression.

All health board chairpersons expressed concerns about the accessibility of PHC services. They indicated that most PHC and emergency health services were provided by FPs. Almost all ($n = 7$) reported having at least one NP in their district and reported that the community accepted the NP as a new health-care provider. On a related point, most health board chairpersons reported a current or projected shortage of FPs. They stated that many rural residents visited emergency departments because they did not have access to an FP or had to wait up to 3 or 4 weeks for an appointment. One chairperson stated, "[This is] a terrible situation for continuity of care" and preventive health practices. On a

similar note, they revealed that many rural patients felt underserved because the shortage of FPs denied them an opportunity to confer with their providers and thereby participate in their own health care.

Health-care providers agreed with the health board chairpersons, indicating that many FPs had appointment wait times of up to 3 weeks and no longer accepted new patients — this resulted in an inappropriate reliance on expensive hospital emergency departments for routine care and little if any access to preventive health services. When asked whether the supply of health-care providers met the needs of their rural community, more than 70% of nurse respondents indicated “no,” whereas 62% of FPs responded “yes.” Over half of all respondents (4 NPs, 3 FPs, 13 public health nurses, 7 family practice nurses) commented that the aging rural FP workforce had unacceptably heavy workloads and that recruitment and retention of younger FPs was difficult.

The Preferred Role for NPs in Rural Nova Scotia

Health board chairpersons described NPs as generalists whose role partially overlaps with the role of FPs. Some stated that it would be better and less costly if NPs carried out some services currently provided by FPs, reducing the number of FPs required in rural areas. Chairpersons stated that NPs cared for patients with common urgent health issues as well as patients requiring preventive health services and chronic disease management. They regarded outreach to vulnerable populations, such as isolated seniors, as a key component of the NP role. Chairpersons stressed that NPs have the skills to address not only physical health problems but also social and mental health concerns:

NPs help the person make the links of calling and get them on track as to where they can get help and meet those needs. It's not just acute problems; social problems, mental health problems — these are enormous.

Assessment, Diagnosis, and Management

Health board chairpersons repeatedly remarked that important components of the NP role were providing wellness and health promotion services and counselling and educating patients to become more self-reliant. NPs apparently provided patients with more time than FPs to discuss their problems. As a result, patients had the opportunity to “unearth some of the other things that might be causing their problems” and NPs could respond appropriately:

If you come in with a bad cold in the chest . . . [patients] can sit and talk to the NP. She may identify other problems, such as mental health problems, that they wouldn't talk to the doctor about because it's the doctor and he or she is busy. People don't feel rushed when they go to see her

[NP]. Not that our physicians rush them, but people have this perception of, oh, it's the doctor, I can't take all of his time.

The majority of survey respondents indicated that FPs currently performed most assessment and diagnostic activities; however, as many as 39% of respondents indicated that NPs performed some of these activities. Moreover, when asked which health-care provider should perform assessment and diagnostic activities, upwards of 91% of respondents indicated that the NP should perform them either independently or collaboratively with an FP; as many as 91% pointed out that NPs should diagnose acute illnesses and 89% that NPs should diagnose chronic illnesses. In answer to another question, 80% to 88% of respondents specified that NPs should analyze data for planning patient care, order diagnostic and laboratory tests, and perform histories and physical examinations. At least 70% indicated that NPs should conduct breast and pelvic examinations, including the Papanicolaou smear; carry out diaphragm measurements and intrauterine device insertions and removals; and provide care for perinatal women, well newborns, and sick babies under 3 months of age. Fewer respondents, between 45% and 60%, indicated that NPs should counsel patients regarding behavioural problems, identify abuse and neglect, and provide care for well children. Those who disagreed indicated that public health nurses and family practice nurses should carry out these activities. Care for an unstable newborn was viewed as the responsibility of FPs rather than NPs.

Prescribing Pharmaceuticals

Questions also addressed perceptions regarding the prescription of pharmaceuticals. The majority of respondents indicated that FPs currently wrote most prescriptions, although 25% to 37% reported at the same time that NPs often prescribed contraceptives, antibiotics, anti-inflammatories, antifungals, and decubitus ulcer treatments. When asked who "should" prescribe pharmaceuticals, at least 75% of respondents indicated that NPs should prescribe the aforementioned pharmaceuticals as well as antivirals, antidepressants, and insulin. Whereas 60% believed that NPs should prescribe opioids, 40% indicated that these drugs should be prescribed only by FPs.

Performing Procedures

With regard to various medical procedures, respondents reported that FPs performed most of the procedures; less than 30% indicated that NPs currently did so. When asked who should perform them, 70% to 92% replied that NPs should suture minor wounds, insert catheters, apply and remove simple casts, manage incisions, perform nail reductions, perform gastric

lavage, manage wounds, manage airways and oxygen therapy, and remove foreign bodies. Fewer respondents (30% to 56%) indicated that NPs should perform skin biopsies as well as procedures related to tonometry, anoscopy, nerve blocks, and colposcopy. The remainder indicated that NPs should not perform these procedures and that only FPs should do so.

Consultation and Referral

The questionnaire also asked about consultation and referral activities, including referral to medical specialists and other health-care providers as well as admission privileges to long-term-care and acute-care facilities. Respondents indicated that most consultation and referral activities were undertaken by FPs; fewer than 35% indicated that NPs carried out these activities in their practice. However, when asked who should perform these activities, 80% or more indicated that NPs ought to consult and refer to medical specialists, other health-care providers, and programs. In addition, 79% and 60%, respectively, indicated that NPs should admit patients to and manage their care in long-term-care facilities and hospitals. Chi-square analysis found no significant differences in the responses of NPs, physicians, public health nurses, and family practice nurses in relation to any of the aforementioned activities, nor were any substantive differences found between respondents with and without experience working with an NP.

Community Health

Health board chairpersons and health-care providers were asked about the community health activities of NPs. Chairpersons cited the essential role played by NPs in community-focused activities and strategic actions. Several described how NPs provide linkages between the community and FPs as well as among various community services, health boards, and community organizations. Chairpersons described the important role played by NPs in “meshing with” and caring about the community. One chairperson said:

She [NP] has the education and the feeling for community and for community development and for community ownership of their problems and issues and how to go about addressing [them]. And I think that's what's so vital.

While approximately half of survey respondents indicated that public health nurses and family practice nurses carried out most community health activities (for example, community assessments, program planning and evaluation, surveillance, outreach services, case finding, and linking with organizations), 30% of respondents included NPs in these activities.

Factors Influencing Implementation of the NP Role in Rural Communities

Health board chairpersons stated that it was important for NPs to work collaboratively with FPs and other health-care providers so as to provide coordinated care and avoid duplication of services. They stressed that it was essential to have FP support when introducing and integrating an NP into a rural community. In terms of implementing the NP role, they commented that some FPs were “reluctant to give up any of their turf” but that other FPs, who were “open-minded” and “forward thinking” and had worked previously with NPs, facilitated the change.

Health board chairpersons stated that it was important to identify the right health-care provider for each type of PHC service, explaining that whereas NPs focused on prevention and health promotion, FPs focused on treatment, and that both roles were important. Health board chairpersons emphasized that only when roles and relationships are clearly defined will the public fully understand the PHC services available to them:

So there's a lot of role identification that needs a little more specific clarity in these things, and then it's a promotional package that's very simple to put out to the public so that the public knows how it works and who they can go and see and when they can go and see them and how it works — how their continuity of care is going to take place.

Health board chairpersons pointed out that in some settings the requirement for NPs to have a formal collaborative practice agreement with a physician interfered with NPs' ability to improve access to health services. They elaborated, explaining that this requirement prevented NPs from extending services to patients beyond the practice population served by the collaborating FP. Thus, if an FP's practice was closed to new patients, the NP was unable to accept new patients, thereby limiting accessibility. The following statement illustrates this point:

During the pilot project, only patients in the collaborative practice could see that NP for problems. She couldn't take on persons from other practices, from other areas within the county. That is [where] the door needs to open.

Health-care providers were asked why the activities that should be undertaken by NPs were not being performed by NPs. Most cited the unavailability of NPs, largely because of the lack of funding for NP positions. They expressed frustration with the length of time, extent of negotiations, and amount of personal energy required to develop an NP role in their community. Some were critical of the scope of practice for NPs in Nova Scotia, particularly the requirement that NPs have an approved

collaborative practice agreement and the limitations on prescribing. Also mentioned was resistance to the NP role on the part of some FPs.

Similar to health board chairpersons, health-care providers commented on the importance of clearly defined roles, noting that restrictions on scope of practice served to inhibit change. They indicated that educating the community, government representatives, and other health-care providers about the NP role would facilitate NP role implementation.

Discussion

In view of the low response rate to the survey of FPs, public health nurses, and family practice nurses, the findings may not be generalizable and should be interpreted with caution. Nevertheless, the findings offer a grassroots perspective on health needs, service gaps, and expectations with regard to the NP role in rural Nova Scotia, where poverty, unemployment, and low levels of education have a significant impact on health (CIHI, 2003; Hayward & Colman, 2003). In some ways, the study represents a virtual discourse between nursing and medicine on the reform of PHC services in rural Nova Scotia. In this dialogue, health board chairpersons figuratively act as overseers, who, because of their special role in the delivery of rural health services, validate most of the findings. Both health-care providers and health board chairpersons concurred that the fundamental problems with rural health services are accessibility to prevention-focused care and timely access to non-emergent PHC services. The highly congruent and complementary perceptions of rural health board chairpersons and health-care providers about the NP role confirm that there are services that NPs can provide autonomously and collaboratively to improve PHC.

Consistent with the results of numerous other studies of NPs' perspective on their role, the findings from this study reveal that health board chairpersons and health-care providers perceive the NP role as centred on a wide range of holistic individual and family-focused health services (DiCenso et al., 2003; Holcomb, 2000; Sidani, Irvine, & DiCenso, 2000). The findings indicate that chairpersons and health-care providers are aware of an overlap in the activities performed by NPs and FPs. The qualitative data from health board chairpersons are particularly revealing in this regard. These respondents indicated that any overlap in activities can only improve access to preventive services as well as to acute and chronic care. They also deemed that a defining characteristic of the NP role is the ability of NPs to reach out and establish therapeutic relationships with patients.

The findings also reveal a potential overlap in the role of NPs and public health nurses and family practice nurses in areas such as health

promotion, well woman and child care, immunization, chronic disease management, and community health. While considerable attention has been given to the overlap in scope of practice between the role of NPs and the role of FPs, there is less awareness of where such overlap exists with other registered nurses. This is an important consideration when planning and defining the roles of health-care providers in a particular setting, especially since other studies have found that the contributions of these nurses have not been recognized (Meagher-Stewart & Aston, 2004; Todd, MacKay, Howlett, & Lawson, 2005). The present results confirm the importance of using a deliberative process to define and determine the roles and responsibilities of each health-care provider when planning and implementing PHC in a particular setting (Bryant-Lukosius & DiCenso, 2004).

For the most part, there were few differences in the perspectives of the various participants about the NP role. This congruence suggests knowledge about and acceptance of the role among those who were interviewed and chose to respond to the survey. This is important since other studies have shown that knowledge and acceptance are important facilitators of NP role implementation (Advisory Committee on Health Human Resources & Centre for Nursing Studies, 2001; DiCenso et al., 2003). Nevertheless, it must be acknowledged that this study focused on the perceptions of rural health board chairpersons and health-care providers. It is possible that their urban counterparts would hold quite different perspectives on the NP role.

On the other hand, there was disagreement among the participating health-care providers about the adequacy of the supply of health-care providers in rural communities. Whereas almost two thirds of FPs indicated that the supply was adequate, both nurses and health board chairpersons indicated that it was not. This difference may reflect the fact that some parts of rural Nova Scotia have more FPs than others (CIHI, 2004). It could be that the FP participants in our study were located in areas where the shortage was less acute. The difference could also reflect variations in the range of services needed in specific communities or differences in the views of health-care providers about the types of services required. A larger sample with detailed demographic data might reveal more divergence in the views of various health-care providers. This is an important issue to explore. FP perceptions of what constitutes an adequate supply of health-care providers, as well as their perceptions of what constitutes adequate accessibility and to what types of services, could influence perceptions about the need for the services of an NP. Furthermore, it is important that the supply of health-care providers be monitored over time, especially if the current decline in rural population continues.

Many of the challenges to implementing the NP role identified in this study are similar to those found by other Canadian studies (DiCenso et al., 2003; Goss Gilroy Management Consultants Inc., 2001). Despite the fact that health-care providers and health board chairpersons saw a clearly defined role for NPs in rural communities, deployment of NPs in Nova Scotia was limited at the time when the study was conducted. Some Canadian provinces have responded to the need for a reorganization of PHC by developing a variety of models that incorporate the NP role (Health Force Ontario, 2007; Martin & Hogg, 2004). In Nova Scotia, however, communities are expected to design their own models to meet the needs of their local populations. Theoretically, such a bottom-up, community-based approach to PHC reform holds promise for PHC services designed for maximum responsiveness to community needs. The results of the present study demonstrate that, despite the best of intentions, the onerous process and energy expenditure required to plan and implement such a change in PHC are a source of frustration. Both health board chairpersons and health-care providers were critical of the requirement for NPs in Nova Scotia to have a formal collaborative practice agreement with a physician; they regarded this as a barrier to implementation of the NP role. If the nature of the collaborative practice agreement is such that NPs cannot take on new patients if the practice of their collaborating physician is closed to new patients, then it defeats one of the purposes of the NP role: to provide PHC services for more people. Although the requirements related to collaborative practice agreements have changed since the study was conducted (CRNNS, 2009), more research is needed in order to identify the potential benefits and disadvantages of these agreements.

This study had several limitations, chief among them the low response rate to the survey. Data from the postcards indicated that lack of knowledge about the NP role was a common reason for refusal to participate, exerting considerable influence on the response rate. The complexity and length of the questionnaire may have been another contributing factor. It is also possible that those who chose not to respond did so because they held negative views of the NP role. Finally, the small number of NPs in the province at the time of the study precluded the collection of demographic data. Had this information been obtained, the diversity of the sample could have been determined.

Notwithstanding these limitations, the study had several strengths that should be acknowledged. The mixed methods design enabled the collection of in-depth qualitative data and some quantitative data on the NP role. An important contribution of the study is its inclusion of the perspectives of health board chairpersons on the NP role in rural communities. As well, the inclusion of a variety of health-care providers allowed

for the incorporation of a range of perspectives. In particular, the views of public health nurses and family practice nurses about the NP role have not previously been studied.

Conclusion

NPs are a relatively new addition to PHC teams in rural Nova Scotia. They are defined by and valued for their holistic, health-promoting nursing approach, which engages patients as partners in the management of their own health. NPs provide individual and family-focused clinical care with an emphasis on health promotion, illness prevention, and the diagnosis and management of chronic and episodic disease. The NP role represents a significant opportunity to improve the accessibility of rural communities to a full range of PHC services. To optimize the benefits of the NP role for residents of rural communities, it is essential that barriers to its deployment and integration be removed.

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