Singing in Different Keys: Enactment of Advanced Nursing Practice in British Columbia

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Abstract

This paper reports on Phase I findings from a three-phase qualitative study on advanced nursing practice in British Columbia. The intent of the study was to guide policy development regarding new and/or advanced nursing roles, and this first phase explored the current understanding of and perceived need for advanced nursing practice roles in British Columbia. Key findings include widespread interest in and confusion about advanced nursing practice; marked variation in the roles, educational background and authority to practise of self-identified advanced practice nurses; and underutilization of registered nurses within the BC healthcare system.

In the past decade, interest in advanced nursing practice (ANP) roles, such as that of nurse practitioner, has accelerated in Canada as employers and governments seek efficiencies in delivery of healthcare services (Alcock 1996; Commission on the Future of Health Care in Canada 2002; Howlett and Tamlyn 1999). This growing interest has occurred in spite of confusion about what APN is and how it relates to specialty, extended or expanded nursing roles (Alcock 1996; Manning 1999). In this paper, we report on the qualitative findings from Phase I of a three-phase study designed to inform policy direction regarding advanced nursing practice roles (Schreiber et al. 2003).

Background

Healthcare in Canada is in flux. Cost pressures, provider shortages, system restructuring and increased patient acuity, chronicity and complexity in institutions and communities have led to increased interest in ANP roles (Commission on the Future of Health Care in Canada 2002; Dunn and Nicklin 1995; Goss Gilroy 2001; National Forum on Health 1997). Nurses working in ANP roles provide appropriate and cost-effective continuity of care (Carter 1997; DiCenso 1998; Horrocks et al. 2002; Safriet 1992) as well as education, support and mentorship for staff nurses and others with whom they work (CNA 2002; Irvine et al. 2000; Schreiber et al. 2003; Sidani et al. 2000). The problem, however, has been considerable confusion regarding definitions, roles, functions, competencies, appropriate practice environ-

ments, educational requirements, credentials, regulations and legislation required for ANP (Alcock 1996; Brown 1998; Manning 1999). This confusion reflects international debate regarding the nature and scope of ANP (Castledine 2002; Daly and Carnwall 2003; Redekop 1997; Rose et al. 2003; Scott 1999; Wilson-Barnett et al. 2000).

Across Canada there are nurse practitioners, clinical nurse specialists, expanded- and extended-role nurses and a variety of nurses with special job titles (e.g., diabetic nurse) (Alcock 1996; Manning 1999). Even within the same job title, there is confusion about the nature of advanced practice, particularly regarding the required educational preparation. For example, 139 of the 295 self-identified clinical nurse specialists (CNSs) in British Columbia at the start of the current study had nursing diplomas as their highest level of education in nursing, even though the Registered Nurses Association of British Columbia (RNABC) and the Canadian Nurses Association (CNA) have stated that a CNS requires a master's or doctoral degree in nursing (CNA 1993; RNABC 1998a,b).

Confusion permeates both nursing and policy circles and stands in contrast to the situation in the United States, where ANP is clearly defined and firmly entrenched (Davies and Hughes 1995; Pinelli 1997; Safriet 2002). This confusion has contributed to the slow acknowledgment, growth and integration of ANP roles into the healthcare system in Canada and in British Columbia. Adding to the confusion is the insufficiency of empirical research to inform the discussion and debate about the nature of ANP roles in the province and in Canada. In the absence of research, much of the debate is based on observation, opinion and anecdotal evidence.

To prepare for future growth of ANP roles in the province, representatives from the BC Ministry of Health (now BC Ministry of Health Planning), the University of Victoria School of Nursing, RNABC and the Capital Health Region (now Vancouver Island Health Authority) initiated a collaborative study of ANP. The overall purpose of this three-phase study was to support decision-making and policy direction related to advanced practice by exploring what registered nurses practising in new and/or advanced roles can contribute to health and service delivery needs in British Columbia.

Approval for human subject research was obtained from the University of Victoria.

In our research project, we used the term "advanced nursing practice" (ANP) because it is the term used in the CNA's framework on advanced nursing practice (CNA 2002), which provided the conceptual framework for our study. We acknowledge, however, the emerging consensus in the nursing literature about the importance of distinguishing between the term "advanced nursing practice"

and "advanced practice nursing" (Brown 1998; Styles and Lewis 2000). At the time we initiated this project, a major nursing text (Hamric et al. 2000) used the term "advanced nursing practice" in its title. By 2005, however, these authors had changed the title of their text to *Advanced Practice Nursing* (Hamric et al. 2005). Thus, the terminology was in transition during the time we carried out our research project.

We agree with Bryant-Lukosius et al. (2004) that the preferred term for much of what we are talking about in this study is "advanced practice nursing" (APN). APN is the broader term, encompassing the whole field of advanced nursing practice including "the profession, its members, its institutions, its values, and all that define and enable its practice" (Styles and Lewis 2000). ANP is a narrower term, referring specifically to the clinical practice of the advanced practice nurse, that is, what advanced practice nurses "do" (Bryant-Lukosius et al. 2004). At the risk of contributing to the definitional confusion, in this study we have used the term ANP rather than APN to allow us to remain consistent with the questions we asked our informants and the data we gathered.

Purpose and Objectives

In Phase I of the study, we explored the current understanding of and perceived need for ANP roles in British Columbia. Specific objectives for Phase I were (a) to clarify the role and understanding of ANP and related roles within the larger healthcare system, (b) to identify the current status of ANP and related roles in British Columbia and (c) to identify perceived gaps in healthcare services in the province that might be filled by the expansion and/or introduction of new nursing roles, including but not restricted to advanced practice roles. An advisory group, composed of healthcare providers, employers, policy makers, educators and the public, met throughout the project to advise and assist the research team.

Method

Phase I consisted of four steps. Step 1 involved interviews with self-identified clinical nurse specialists(s). At the time of data collection, the CNS was the only recognized ANP role in British Columbia consistent with the CNA competencies for ANP, which include clinical, leadership, research, collaboration and change agent (CNA 2002). Step 2 consisted of focus groups with nurses who were likely to meet the CNA criteria, and Step 3 involved interviews with nurses from sites with the potential for development of ANP roles. Step 4 involved a survey of employers in the province, the quantitative results of which are reported elsewhere (Schreiber et al. 2003). In this paper, we report qualitative findings from Steps 1 to 3.

Design and recruitment

In Step 1, we conducted telephone interviews and email surveys with nurses who

identified themselves as clinical nurse specialists (CNSs). To reach this population, RNABC sent a notice on behalf of the research team to the 273 nurses who identified themselves as CNSs on their RNABC registration forms and who gave permission to contact them for such purposes. At the time we initiated the study, the CNS was the only established ANP role in the province. Because we were interested in learning how self-identified clinical nurse specialists in the province understood advanced nursing practice, we were not concerned with whether they would meet the CNA-defined characteristics and competencies (CNA 2002). We expected to find variation in such factors as education, experience, work setting and view of advanced nursing practice, as well as the characteristics and competencies of practice. The research team anticipated that this variation would represent the range of understandings of advanced nursing practice held by a group of potential advanced practice nurses.

We planned for 30 interviews and received 97 replies. To ensure wide representation, we increased the total number of interviews to 35 in Step 1, sampling on the basis of variation (Glaser and Strauss 1967) in such factors as educational preparation, geographic location, size and type of employing facility and populations served. Telephone interviews were scheduled at a mutually agreeable time. Data were collected by email from an additional 12 participants who were unable to schedule an interview, for a total of 47 participants in Step 1. The remaining 50 of the 97 respondents, because they met the recruitment criteria for subsequent steps in Phase 1, were invited to participate in one of the other steps of the project, as described below. We inquired about the Phase 1 participants' understandings of ANP, particularly what it was about their work that they felt made it advanced. We were also interested in the educational and experiential background that they felt prepared them to take on their role(s) and the authority under which they engaged in practice. We wanted to know their perceived supports and challenges, as well as any relevant information they felt we should have related to advanced nursing practice.

In Step 2, we wanted to learn how nurses who were likely to meet the CNA characteristics and competencies understood advanced nursing practice, particularly what it was about their work that they felt made it advanced. Again, we recruited through the RNABC. Many Step 2 participants were already familiar with the study, and 20 of the nurses who responded to the original invitation to participate and who were likely to meet the CNA characteristics and competencies for ANP were included in this step. We intended to conduct three focus groups, one in the Vancouver area, one on Vancouver Island and one in the interior or the North. However, because we were overwhelmed again with voluntary participants, we conducted a total of six focus groups with 55 participants in Vancouver, Victoria and Prince George. In the second step, we were interested in the same issues as in Step 1.

In Step 3, our plan was to recruit five nurses in each of six sites where there was potential for role expansion or for advanced nursing practice to develop. These sites included outpost nursing stations, Red Cross nursing stations, community health centres, Primary Care Demonstration Project sites, community mental health centres and nurses working on the provincial telehealth support line. Participants were identified in two ways. We began by interviewing five nurses who had responded to our initial mailing and had been streamed into Step 3. In addition, we purposively identified sites through Ministry sources (lists and staff), the University of Victoria School of Nursing practice placement database and through researcher contact with the Primary Care Demonstration Projects. The 29 Step 3 participants represented rural/remote diagnostic and treatment centres (n=9), Primary Care Demonstration Project sites (n=6), Red Cross nursing stations (n=6), the help support line (n=4) and community health centres (n=4).

Data collection and analysis

The CNA framework for ANP (CNA 2002) was used to guide the conceptual development of interview questions, data collection and analysis. Data for Phase I consisted of individual and group interviews, field notes, documents (e.g., job descriptions) and surveys. All interview and focus group data from Steps 1 to 3 were audiotaped, transcribed verbatim, verified and analyzed by members of the research team, both individually (by hand and using NUD*IST software) and as a group. A coding scheme, derived inductively from a prior study of nurse practitioner roles (MacDonald et al. 2001) and modified based on current data and on the CNA competencies and characteristics of ANP, was used as a framework for this phase of the data analysis.

Sample

Table 1 summarizes the sample size for each step, the recruitment method used, certain characteristics of each sample (including geographic location, age and nursing experience), roles, settings in which the nurse worked and the interview method.

Findings

Steps 1–3

In the analysis of the data from Steps 1 to 3, considerable overlap of participants' responses became apparent in each step; therefore, we treated the data from the three steps as a single data set. Based on examination of the data, participants were clustered into two groups: those whose practice demonstrated a high degree of consistency with the CNA characteristics and competencies (CNA 2002) and those whose practice did not. Those in the first group, labelled the CNS cluster, included all 55 nurses from Step 2 and 14 from Step 1. The practice of nurses in the CNS cluster, who were more likely to meet the CNA competencies for ANP, was consis-

Table 1. Phase 1: Sample size, recruitment method, sample characteristics and data collection method for Steps 1 to 3

Step	Sample	Recruitment Location	Sample	Age Experience	Nursing or Settings	Roles	Method
1	Self-identified advanced nursing practice nurses (n=47)	RNABC data base of self-identified clinical nurse specialist (n=273)	36 urban 10 rural 1 remote	Range: 28-62 yrs Mean: 46 yrs	Range: 8-41 yrs Mean: 22 yrs	Wide range of acute and community care settings	Telephone interviews (n=35) Email survey (n=12)
2	Nurses who likely met CNA criteria for advanced nursing practice (n=55)	RNABC Clinical Nurse Specialist Professsional Practice group	55 urban	Range: 27-62 yrs Mean: 46 yrs	Range: 1.5-40 yrs Mean: 21.5 yrs	Wide range of acute and community care settings	Focus groups - Vancouver, Victoria and Prince George (n=6)
3	Nurses in settings with potential for advanced nursing practice roles to develop (n=29)	Snowballing technique in which participants were identified by other participants and professional colleagues	9 urban 8 rural 12 remote	Range: 32-64 yrs Mean: 46 yrs	Range: 11-42 yrs Mean: 22 yrs	• Community Health Centres • Remote northern clinics • Primary care demonstration sites • RN First Call sites • Telephone support line	Telephone interview

tent with the RNABC (1998b) and CNA (1993) definitions of clinical nurse specialist. The second (non-CNS) cluster included urban, rural and remote nurses in a range of settings (e.g., outpost and community) and roles (e.g., clinician, diabetic nurse).

The majority of participants in both groups considered themselves to be practising in an advanced role and consistently defined ANP as working independently, having a specialized body of knowledge, having knowledge and skills beyond what they learned in their basic nursing programs, or some combination of these. Beyond this initial description, two different understandings of ANP practice emerged and have been reported elsewhere (Pauly et al. 2004). In this section, we report key findings on participants' perspectives on (a) their roles and responsibilities, (b) their acquisition of knowledge and skills for their current role, including the education required for ANP, (c) their scope of practice and authority to practise, (d) supports for and challenges to their practice and (e) benefits of ANP.

Roles and responsibilities

We identified 69 respondents as clinical nurse specialists. The majority of these nurses identified a broader range of roles and responsibilities in their job descriptions than nurses in the other cluster. In particular, they specified their roles as encompassing direct care, coordination of care, education, policy and program development, administration, leadership, research and consultation. Not surprisingly, these responsibilities closely reflect the competency domains in the CNA framework for advanced nursing practice (CNA 2002). Participants in the CNS cluster described their direct care role as coordinating and caring for the most difficult or complex clients or specific population groups. For example, one nurse working in oncology identified her direct care role as working with patients with complex pain management needs. Participants described working with staff, patients and families in developing a plan of care and specified their direct care role as key to identifying population trends essential to their work in policy and program development. Participants valued all aspects of their role, but consistently identified the research role as the most likely to be left undone owing to lack of time and resources.

CNSs described varying degrees of administrative responsibility for supervising staff, hiring and orientation of new staff and completing performance evaluations. Leadership was identified as a key component of their role. Participants described taking the lead in initiating and enabling staff to implement new programs, promoting evidence-based practice, mentorship and role modelling for registered nurses in direct care positions. The common goal shared by CNSs was improving the quality of patient care by enhancing nursing care.

The second cluster included four sub-groups: clinicians (n=24), primary care nurses working in rural and remote areas who often self-identify or are identified by others as "nurse practitioners" (n=25), nurses with a specialized focus such as high-risk maternity care (n=8) and nurses in other roles (n=5). The principal role of nurses in this cluster was to provide direct care, coordination, education and consultation to individual patients. There was a high degree of consistency in their job descriptions. What distinguishes this second cluster of nurses from the CNS cluster is that the work of nurses in this second cluster is focused primarily on individual patient care and education rather than on caring for and improving the health of an identified population. Participants in all sub-groups of the non-CNS cluster had specialized knowledge and skills in assessing, managing and caring for individuals, and most did not describe attending to larger population trends as a means of influencing service delivery based on the needs of the population. Similarly, they did not describe working with other nurses to enhance the quality of patient care for a population or group of patients.

Nurses in the first and second sub-groups of the non-CNS cluster practised similarly, although their geographic location varied. Nurses in the first sub-group worked in urban settings, while those in the second sub-group worked in rural/remote areas and provided primary care (assessment, diagnosis and treatment) either in isolation or as part of a team. Although rural/remote nurses described an individual focus in the delivery of primary and emergency care, about half identified providing community care, or public healthcare to the community, as an important aspect of their role. In addition, depending on the setting and size of the organization, many of the nurses had administrative responsibilities. For example, one nurse in a small treatment centre described herself as being responsible for managing the daily operations of the organization.

We labelled the third sub-group "nurses with a specialized focus." These nurses primarily worked in a community nursing role with an identified group of clients and a specialized program focus, such as diabetes or poison control. Their practice focused on providing direct care, coordination and education of clients. For example, one nurse described working with medically frail children and their families by providing in-school support and education, supportive child care and coordination of respite care. The educative role included teaching individual patients, the public and other healthcare providers, and was related to the specialized program for which the nurses were responsible. Among this group, there was limited evidence in their work descriptions of research activities, leadership or change agency.

Nurses in the final sub-group did not fit clearly with the other three groups because their role descriptions did not involve direct patient care. Two of these nurses coordinated clinical medical or pharmaceutical trials and two other nurses worked in information systems. The two clinical research nurses identified their primary role as implementation of medical research protocols within their agency. This description contrasts with the nursing research involvement of the clinical nurse specialists. A fifth nurse managed a medical office.

Acquisition of knowledge and skills

All participants described both formal and informal education and experience as assisting them to acquire their current level of knowledge and skills. There were notable differences in the descriptions provided by the participants in the two clusters, related primarily to the participants' level of education. The majority (72%) in the CNS cluster had graduate preparation, either an earned degree (n=49) or enrollment in a graduate program (n=7). These participants repeatedly cited the importance and value of their graduate education as a critical source for acquiring the knowledge and skills needed to practise in their current roles. They reinforced the importance and need for practical experience both during and after formal education to promote personal and professional development as an advanced

practice nurse. As one participant observed:

> ... it's not just getting an education, it's applying that in practice. And from my own personal experience and people that I know who are CNSs, they would say the experience is critical. And that they function as a clinical nurse specialist, in their full capacity as a clinical nurse specialist, not right out of university.

Participants in the second non-CNS cluster were more diverse in their educational backgrounds: 5 had graduate preparation, 24 had baccalaureate degrees and 33 had nursing diplomas. Many were enrolled in educational programs: 8 in a baccalaureate program and 6 in a graduate program. Nurses in this cluster were more likely to identify continuing education and clinical experience, rather than their formal education, as the primary sources for acquiring their knowledge and skills for practice. These participants specifically described their acquisition of knowledge and skills as having occurred through a patchwork of "one-off" experiences such as on-the-job training (e.g., informal apprenticing with other providers), clinical experience, conferences, workshops, certification programs, mentorship, reading journals and the Internet. Participants working in rural and remote locations were particularly likely to refer to past clinical experiences as an important source for obtaining knowledge and skills for their work. For example, many had actively sought out informal learning with physicians and nurses to obtain such skills as managing deliveries or administering immunizations.
Nurses in the non-CNS cluster consistently identified continuing education as the main source for acquiring the necessary psychomotor skills and knowledge for their current practice. They did not think their formal nursing education provided them with the skills or knowledge base for these roles. This finding contrasts with that for nurses in the CNS cluster, who tended to see continuing education as a way of keeping current rather than for attaining competency.

All participants recognized that a combination of practice experience and formal education was needed to prepare for ANP. They differed, however, in the level of formal education recommended. Participants with graduate preparation in nursing endorsed graduate education with an integrated practice component. Some others felt that graduate programs might be too theoretical and that inadequate access may pose a barrier to some nurses. Participants working in more isolated settings stressed the need for primary healthcare or outpost nursing programs to prepare nurses for these types of practice settings. All participants were eager to benefit from educational programs and were frustrated at the paucity of relevant offerings and the difficulties encountered in accessing them.

Scope of practice

Participants described their scope of practice, the degree to which they were practising to their full potential and the available opportunities for expansion of ANP roles. Most participants identified themselves as working in ANP roles; only 11 of the 131 participants did not think they were engaged in advanced nursing practice in their current position. One participant stated, "I don't really feel it fits what they're [the CNA] looking at as far as advanced nursing practice. ... We do some advanced skills, but we don't have the knowledge and skill base and the teaching for becoming responsible for patient groups."

A significant difference existed between the two clusters on the views about their scope of practice. In the non-CNS cluster, nurses tended to think about ANP primarily as extending their scope outside nursing. In contrast, CNSs saw ANP as expanding knowledge and skills within the domain and discipline of nursing. One participant with nurse practitioner preparation from the United States described the difference between extended and expanded scope of practice:

> I was truly a physician's replacement. I did a two-year program to specialize in that role. I went to medical school, learned how to do history and physicals, did radiology classes, learned how to read chest x-rays, abdominal x-rays, whatever. Took pharmacology classes and I would write prescriptions and wrote all the orders. ... But I don't want to see myself getting caught up in just doing that again. And I don't think there's anything wrong with nurses having equal skill. We just bring a different focus.

Authority to practise

Participants cited a number of sources for their authority to practise, including formal transfer of function agreements with physicians, clinical protocols and guidelines, employer policies and procedures, orders, professional nursing standards and guidelines and informal arrangements with physicians. Protocols were largely used in rural and remote settings. The success of medical delegation was largely dependent on the comfort level of the individual physician(s) involved with the practice of a particular nurse, which meant that the personal credibility of the nurse was vital. Nurses in the non-CNS cluster particularly emphasized the importance of building a relationship of trust with physicians to ensure support for their own practice. For example, a recently hired nurse working in a rural setting was chastised by a physician for giving acetaminophen to a patient, although any experienced nurse in that setting would have been expected by the physicians to do so.

Supports for and challenges to practice

Participants consistently identified similar supports for their practice. An understanding and appreciation by others of the participants' role within their

organizations was vital. One participant said:

> Some of the managers are the greatest support and they can make a big difference because they can facilitate the entrance into the unit and the accomplishment of the patient care. But at the same time, if they don't understand advanced practice or they don't think they need it on their unit because their nurses are all experts, then it's really hard to get into that unit and to try and facilitate any type of patient care, let alone education or research.

Supportive working relationships with colleagues, particularly with physicians and other nurses, were also important. Other supports included infrastructure supports, continuing education opportunities and clearly defined policies, guidelines and standards.

All participants identified several common challenges to their practice, often related to the absence of supports. The lack of understanding and appreciation by others of their role was a common and significant challenge. Participants identified financial issues, including lack of funding, inadequate compensation and fee-for-service physician practice as particular challenges. Participants working with protocols, particularly in rural/remote locations, identified a number of problems, including the absence of relevant protocols for certain situations and unrealistic, inconsistent or restrictive protocols. Participants also stated that a lack of physician buy-in and endorsement of the protocols prevented them from performing certain activities of which they felt capable. In settings in which protocols were fully implemented, the nurses attributed a large part of the success to their personal credibility with the local physicians. Working in this way with protocols, the boundaries of practice were unclear and constantly shifted with different physician–nurse combinations. When physicians were not physically present, there were fewer apparent difficulties with use of protocols.

Additional challenges mentioned by many participants were difficulty accessing continuing education, physician resistance, a nonsupportive working environment and lack of direct line authority.

Benefits and utilization of advanced nursing practice

Participants reported that ANP had benefits for the healthcare system and for the nursing profession. All identified themselves as having a holistic health promotion perspective and providing comprehensive, coordinated care and excellent management of complex cases. These roles were also seen as having a positive influence on the nursing profession and healthcare through facilitating best practices and providing a career path for nurses who wanted to continue to grow in their profes-

sion yet retain contact with patients. Participants expressed the view that their knowledge and skills were underutilized because of limitations in scope of practice, restrictive job descriptions, multiple demands on their time or some combination of these.

Participants in the non-CNS cluster identified their additional potential in terms of taking on added skills such as suturing, prescribing, diagnosing or ordering routine tests. CNSs identified their potential in terms of broader population health issues, conducting research and developing nursing practice. In the non-CNS cluster, the emphasis was on the development of skills to improve individual patient care. In contrast, participants in the CNS cluster were concerned with knowledge and knowledge development to improve patient care for populations. This difference seemed to stem from an awareness and valuing of the role of theory and research in their practice.

Participants identified key areas for expansion of ANP, including health promotion, illness prevention and chronic disease management with a broad range of individuals, groups and populations. They also identified opportunities for expansion in specific clinical areas such as primary care, mental health and geriatrics. As one said:

> The role of prevention in chronic illness and educating patients to prevent illness, that is perfect for nurses. No other profession can do it better. It is critical if we're going to get a handle on our problems in Canada. If we could get into schools, and do more health education about sexually transmitted diseases, coping, psychiatry – in the way of dealing with stress, dealing with anger – we could stop all that business [chronic illness].

Discussion and Implications

Although participants varied widely in job titles and role descriptions, reflecting considerable confusion about the meaning of ANP, analysis of the data revealed two conceptual clusters. This finding is similar to Alcock's (1996) findings from Ontario. In Alcock's work, the job titles, roles, responsibilities and education varied widely. In our sample, the finding that the nurses clustered into two groups based on roles and responsibilities, education level and authority to practise suggests limits on the confusion and perhaps an emerging consensus on ANP. Our findings supported an emerging and clear distinction between ANP and non-ANP roles and validated the important contributions to the health of the public made by both advanced practice nurses and nurses working in extended/expanded roles. In addition, registered nurses, irrespective of whether they met the CNA criteria, were found to be an underutilized resource in the healthcare system of British Columbia.

As might be expected with a select sample of this nature, participants expressed a

high level of and interest in education. Thirty-five percent had completed master's degrees in nursing, and another 35% had completed nursing baccalaureates. In comparison, the national statistics demonstrate that only 1.7% of Canadian nurses have nursing master's degrees, and 24.3% have nursing baccalaureates (Canadian Institute for Health Information 2001). When both nursing and non-nursing education are considered, the difference in educational level between the sample and the national average is even greater: 50% of participants had completed or were enrolled in graduate programs as their highest level of education, and another 40% had either completed or were enrolled in baccalaureate programs. Graduate-prepared nurses, whether their degrees were in nursing or another field, were strikingly similar in their perspective on the nature of ANP and their descriptions of that practice, suggesting that graduate preparation itself contributes to the ability to analyze and practise in complex situations at a sophisticated level. Although this was a purposive, select sample of nurses in particular roles, it was reassuring that, given their additional responsibilities and broader scope of practice, the educational level of this group exceeded basic preparation and, indeed, the national average. The educational preparation of the sample, combined with their expressions of interest in ongoing education, could be seen to reflect recognition among participants of the need for education beyond basic nursing preparation for advanced roles.

The fact that nurses identified themselves as underutilized or inappropriately utilized highlights more broadly concerns about health human resource challenges. Although they were extremely busy, nurses identified that they were unable to use their knowledge and skills fully in the regulatory, political and social context of their worksites. These nurses often had extended or expanded skills, but encountered challenges in use of protocols, creation of collaborative relationships with physicians and workplace cultures that constrained their practice. In addition, participants identified a number of places in which advanced practice nurses could meet population health needs if the opportunities were provided. There is considerable untapped potential in using the nursing workforce more productively. This finding is consistent with the Canadian Nursing Advisory Committee's recommendations on health human resources (Advisory Committee on Health Human Resources 2002).

The supports and challenges for ANP and role implementation identified by our research participants replicate, for the most part, the findings of other researchers (Bryant-Lukosius et al. 2004; Irvine et al. 2000; Knaus et al. 1997; Martin and Hutchinson 1997, 1999; McFadden and Miller 1994). Strong administrative support, role clarity and agreed-upon job expectations are factors consistently identified in the literature as important supports and, conversely, as barriers when they are not present. Other important factors that are either supportive or that present challenges include organizational readiness, physician support, collegial support,

adequate infrastructure and material resources, appropriate funding mechanisms and availability of continuing education resources. The consistency of these findings indicates that implementation planning and resource investment for new advanced practice roles must be taken seriously.

Several implications arise from these findings. First, there must be clear regulatory authority for nurses to practise in ANP roles in which scope of practice overlaps with that of other disciplines. To ensure unambiguous professional accountability, advanced practice nurses emphasized that they require autonomy in practice, supported by enabling legislation and regulation. When problems arise with medical delegation, clearly defined protocols are required to support nurses working in extended or expanded roles. Dedicated funding for implementation of new roles must be provided with the development of legislation. Outside the bounds of legislation, interprofessional collaboration should be supported through education, organizational structures, policies and dedicated resources. Particular attention is needed in creating organizational cultures that foster interprofessional understanding and learning.

Second, there is a need to foster role development through both formal education and in practice. Participants articulated the value of both meaningful education and experience in their professional development. They sought relevant educational opportunities whenever possible and identified a paucity of appropriate graduate and continuing educational offerings. They stressed that educational programs must include a strong practice component and opportunities for building on learners' current knowledge and experience. There is a need for relevant, timely and accessible continuing education offerings that encourage further development of nurses in advanced, extended and expanded roles. Lastly, opportunities for role development in the practice setting through networks and mentoring are potential means for fostering growth of advanced practice nurses.

A third implication is the need for further research that is based on nurse-sensitive outcomes in order to determine the impact and benefits of nursing practice at all levels, including basic, advanced, extended and expanded roles. Such research would provide important data to support health services planning and delivery based on the full utilization of registered nurses.

Finally, the findings of our study provide empirical support for the utility and validity of the CNA's (2002) framework on advanced nursing practice in identifying, describing and defining ANP in British Columbia. ANP roles in Canada are being developed at an unprecedented pace with varying degrees of advanced planning. In this research, we have described the current situation in one Canadian province, and identified a number of issues to be addressed if ANP and other new nursing

roles are to be fully and successfully integrated into healthcare services delivery. Addressing the particular challenges identified in this and previous research will move us from singing in different keys to singing in harmony.

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