A Historical Overview of the Development of Advanced Practice Nursing Roles in Canada

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Abstract

Advanced practice nursing has evolved over the years to become recognized today as an important and growing trend among healthcare systems worldwide. To understand the development and current status of advanced practice nursing within a Canadian context, it is important to explore its historical roots and influences. The purpose of this paper is to provide a historical overview of the major influences on the development of advanced practice nursing roles that exist in Canada today, those roles being the nurse practitioner and the clinical nurse specialist. Using a scoping review and qualitative interviews, data were summarized according to three distinct time periods related to the development of advanced practice nursing. They are the early beginnings; the first formal wave, between the mid 1960s and mid 1980s; and the second wave, beginning in the late 1980s and continuing to the present. This paper highlights how advanced practice nursing roles have evolved over the years to meet emerging needs within the Canadian healthcare system. A number of influential factors have both facilitated and hindered the development of the roles, despite strong evidence to support their effectiveness. Given the progress over the past few decades, the future of advanced practice nursing within the Canadian healthcare system is promising.

Introduction

Advanced practice nursing has evolved over the years to become recognized today as an important and growing trend among healthcare systems worldwide (Sheer and Wong 2008). It is defined as,

> … an advanced level of clinical nursing practice that maximizes the use of graduate educational preparation, in-depth nursing knowledge and expertise in meeting the health needs of individuals, families, groups, communities and populations. It involves analyzing and synthesizing knowledge; understanding, interpreting and applying nursing theory and research; and developing and advancing nursing knowledge and the profession as a whole" (Canadian Nurses Association 2008: 10).

In Canada, the roots of advanced practice nursing can be traced to the efforts of outpost nurses who worked in isolated areas such as the Northwest Territories,

Labrador and Newfoundland during the early 1890s (Graydon and Hendry 1977; Higgins 2008). These early beginnings of advanced practice nursing have been accepted but largely unrecognized within the Canadian healthcare system (McTavish 1979). Since the 1960s, advanced practice nursing roles have become more formalized within Canada.

To understand the development and current status of advanced practice nursing within a Canadian context, it is important to explore its historical roots and influences. The purpose of this paper is to provide a historical overview of the major influences on the development of advanced practice nursing roles that exist in Canada today, those roles being the nurse practitioner (NP) and the clinical nurse specialist (CNS).

Methods

This paper draws on the results of a scoping review of the literature and key informant interviews conducted for a decision support synthesis commissioned by the Canadian Health Services Research Foundation and the Office of Nursing Policy in Health Canada. The overall objective of this synthesis was to develop a better understanding of advanced practice nursing roles, their current use, and the individual, organizational and health system factors that influence their effective development and integration in the Canadian healthcare system (DiCenso et al. 2010a). The detailed methods undertaken for this synthesis are described in an earlier paper in this issue (DiCenso et al. 2010b). Briefly, it consisted of a scoping review of 468 papers that represent Canadian papers ever written about advanced practice nursing and international reviews published between 2003 and 2008. It also included 62 interviews and four focus groups with national and international key informants, including CNSs, NPs, physicians, allied health providers, educators, healthcare administrators, nursing regulators and government policy makers. For this paper, the data have been summarized according to three distinct time periods of advanced practice nursing development: the early beginnings; the first formal wave, between the mid-1960s and mid-1980s; and the second wave, beginning in the late 1980s and continuing to the present. Major historical drivers for advanced practice nursing development during each of the two waves will be described for the CNS and NP roles.

Early Beginnings of Advanced Practice Nursing

Informally, nurses have been practising in expanded roles in rural and remote areas of Canada for some time, where "nurses have for years been safely accepting many responsibilities traditionally taken by family and general practitioners" (Hodgkin 1977: 829). The chronic shortage of physicians in remote areas of Canada, in particular, created a demand for nurses to work in these underserviced areas. According to a national report (Kulig et al. 2003), the first outpost nurses

came from England in 1893 as part of the Grenfell Mission (Graydon and Hendry 1977; Higgins 2008). The mission, led by British medical missionary Wilfred Grenfell, provided some of the earliest permanent medical services in Labrador and northern Newfoundland (Higgins 2008). Before this mission, almost no healthcare resources or formally trained nurses existed in the area. By 1920, nurse midwives were recruited to rural areas of Newfoundland to provide healthcare under challenging conditions (e.g., lack of professional support, lack of equipment and resources, poor transportation and limited communication). Nurses also practised in remote areas of other provinces. For example, an interview participant from Saskatchewan describes the following:

> We've always had nurses working in expanded roles here in the province from the early days, particularly in northern Saskatchewan. And it started expanding particularly in the rural and northern areas for the most part because of difficulty in finding continuous physician coverage for those areas.

An NP who works in the Yukon elaborates further:

> Historically, nurses have worked in an expanded capacity in remote regions of northern Canada out of necessity, so when health services were being regionalized in the north in the 1960s and they started looking for nurses to work up here, they initially looked at midwives from Britain because of the high birth rate and the aboriginal community, and eventually, it just evolved that nurses had to take on many roles that were traditionally within the medical realm, and doing things like suturing and reading X-rays and those types of things, and so we have evolved. We are almost, you could say, the first generation of the NP.

Drivers for Development of Advanced Practice Nursing Roles: Mid-1960s to Mid-1980s

The major impetus for the formal development of advanced practice nursing, particularly for the CNS role, was the fallout of World War II, in which "the depletion of experienced nurses on the home front during the war necessitated the preparation of other nurses to fill this gap" (Montemuro 1987: 106). More funds were allocated to train and educate veteran nurses to meet societal needs (e.g., the tuberculosis pandemic and the emergence of psychiatric nursing as a specialty), leading to more specialty training and the development of advanced skills for both junior and senior nurses. However, some nurses felt that their profession was not ready to accept a more advanced and independent role within the healthcare system (McTavish 1979). Others argued that nurses should seize the opportunity to develop their profession because they believed that nurses were appropriately positioned

to meet society's emerging healthcare needs. Another controversial issue was the potential medicalization of nursing and loss of a nursing philosophy of practice as nurses in expanded and advanced roles took on functions traditionally performed by physicians (Brown 1974; King 1974; MacDonald et al. 2005). During this time, two types of advanced practice nursing roles emerged: the NP and the CNS.

Nurse Practitioner

In Canada during the mid 1960s and early 1970s, the major driving forces for implementing the NP role (also known as an "expanded role" or the "family practice" nurse) (Allen 1999; Chambers and West 1978a; Glass et al. 1974; King 1974) were (1) the introduction of universal publicly funded medical insurance, (2) the perceived physician shortage, (3) the increased emphasis on primary healthcare, and (4) the trend toward increased medical specialization (Angus and Bourgeault 1999; de Witt and Ploeg 2005; Torrance 1998; van der Horst 1992). In response, the Boudreau report (1972) was released, receiving widespread acceptance across the country. It recommended that NPs be trained to meet primary healthcare needs in Canada, proposing that NPs could be the first contact for people entering the healthcare system ("Nurse Practitioner" 1978). Boudreau (1972: 7) contended that the NP should be "an extension of the present nursing role, with the nurse's unique skills in the provision of health care being developed and utilized more effectively, and the nurse's role in assisting the physician expanded through increased delegation of certain tasks by physicians to suitably prepared nurses." Following this report, the Canadian Nurses Association (CNA) and the Canadian Medical Association (CMA) issued a Joint Statement (CNA and CMA 1973) that addressed priorities, roles and responsibilities, education and work situations for nurses working in expanded roles (Witter du Gas 1974). The statement recognized the interdependent nature of nursing and physician roles and envisioned increased nursing responsibilities for health maintenance ("Canadian Medical" 1973).

Provincial nursing groups across Canada led a number of initiatives aimed at legitimizing expanded nursing roles (Baumgart and Grantham 1973; "Nurse Practitioner" 1978), such as the development of (1) the Nurse Practitioners' Association of Ontario (1973), (2) the British Columbia Committee on the Expanded Role of the Nurse in Provision of Health Care (1973), (3) the Saskatchewan Nurse Practitioner Demonstration Project (Cardenas 1975), (4) the Manitoba Nurse Practitioner Interest Group (1975), (5) the Report on Nurses in Nova Scotia Performing in an Expanded Role (1975), and (6) a report entitled Employment Opportunities for Nurse Practitioners in Alberta (1977).

Soon after the Boudreau report and the CNA/CMA's Joint Statement were released, a number of educational programs were developed across Canada to prepare nurses for expanded roles. Two types of programs emerged: one that prepared

nurses to provide health services in outpost settings and in remote areas of northern Canada, and another that focused on developing nurses with primary care skills to work in family practice settings or in community nursing roles ("Nurse Practitioner" 1978). Dalhousie University in Nova Scotia led the way by establishing the first program for midwifery and outpost nursing in 1967; six other universities (Alberta, Manitoba, Western Ontario, Toronto, McGill and Sherbrooke) followed suit in 1972. The curriculum for these programs was influenced by the Kergin Report (Kergin 1970), with the goal of preparing clinically trained nurses (CTNs) to practise in isolated settings (Hazlett 1975). McMaster University and the University of Montreal started programs in 1971 that focused on preparing "family practice nurses" to work in urban settings. Other similar university programs began later at the University of British Columbia and Memorial University.

Several program descriptions were published (Chambers et al. 1974; Herbert and Little 1983; Kergin and Spitzer 1975; Kergin et al. 1973; Spitzer and Kergin 1973, 1975); their curricula emphasized preparing nurses to work collaboratively with physicians but in more independent and expanded roles. For example, at McMaster, physicians had to agree to "take on" the nurse and to attend certain clinical and educational sessions with the nurse. Spaulding and Neufeld (1973: 98) described the McMaster program positively: "The nurses learn enough history taking and physical examination to carry out the initial assessment of patients, most prenatal and postnatal care, well-baby care, and the management of certain diseases such as hypertension and diabetes." However, programs varied across institutions, with Dalhousie University offering a two-year diploma and McMaster offering an eight-month program beyond a baccalaureate degree or a diploma.

A key issue for facilitating the development of advanced practice nursing roles was the debate about educational requirements for entry-to-practice during the early 1970s, with recommendations for baccalaureate education for NPs (Buzzell 1976; Riley 1974) and master's level for CNSs (Boone and Kikuchi 1977). Moreover, arguments for increased standardization of NP education were made and continue to be debated today (Canadian Nurse Practitioner Initiative 2006; Hubert et al. 2000; Schreiber et al. 2005). Confusion regarding the required educational preparation for advanced practice nursing roles has contributed to the slow acknowledgement, growth and integration of these roles into the Canadian healthcare system (Schreiber et al. 2005).

Several pilot or demonstration projects were subsequently initiated across the country, as suggested in the Boudreau report. Generally, evaluation of these projects was positive; 93% of NPs gained employment, more time was spent with patients, NPs reported doing less clerical work, and job satisfaction stayed the same for MDs and NPs (Scherer et al. 1977; Spitzer et al. 1975). Using a descriptive survey, Chenoy

et al. (1973) found that patients had favourable views about nurses being involved in health promotion activities, but they preferred physicians in "worry-inducing" situations. In isolated settings such as northern Newfoundland or Ontario, outpost nurses were responsible for providing primary care to the entire community and for seeing patients in clinics for preventative health, prescription refills or common problems such as upper and lower respiratory infections (Black et al. 1976; Dunn and Higgins 1986; Graydon and Hendry 1977). A pilot evaluation of four NPs working in rural Saskatchewan showed that role implementation varied according to community needs (Cardenas 1975). Research also supported the NP role in pediatric settings (McFarlane and Norman 1972), outpatient clinics (King et al. 1974; Ramsay et al. 1982) and emergency settings (Vayda et al. 1973).

Rigorous evaluation studies of NP outcomes were also conducted during this time. In Ontario, two landmark randomized controlled trials, often referred to as the Burlington Trial (Sackett et al. 1974; Spitzer et al. 1974) and the Southern Ontario Study (Spitzer et al. 1973a, 1975), demonstrated the effectiveness of the NP role. The studies showed that NPs could safely manage 67% of the problems reported in a family practice setting and that patients were satisfied with NP care (Batchelor et al. 1975; Sackett et al. 1974; Spitzer et al. 1976). Studies conducted in Newfoundland showed positive results, adding further support for the safety and effectiveness of NP roles (Chambers and West 1978a). NPs were also found to improve resource utilization and access to care (Chambers 1979; Denton et al. 1983; Kushner 1976; Lees 1973; Lomas and Stoddart 1985; Spitzer et al. 1973a) and to increase primary care services in the community (Chambers et al. 1977).

Despite the strong research evidence supporting the effectiveness of NPs, integration and sustainability of this role failed during the 1970s. A number of factors led to the failure, but the primary reason was lack of funding for NP services (Chambers and West 1978b; Mitchell et al. 1993). Since provincial ministries of health did not provide funding for NPs, physicians who partnered with NPs had to pay their salaries out of their income. This arrangement soon created a financial loss and disincentive for physicians to work with NPs because they were unable to bill for unsupervised NP services (Jones 1984; Spitzer et al. 1973b). Other factors included a perceived oversupply of physicians, particularly in urban areas; lack of NP role legislation for an extended scope of practice; insufficient public awareness of the role; and inadequate support from policy makers and other health providers (Mitchell et al.1993). In particular, lack of support from the medical community created substantial tension around NP role implementation (Haines 1993).

The direct relationship between the perceived demand for NPs and the undersupply of physicians as the traditional and primary driver for NP services was troublesome for the sustainability of the NP role. While comparing the different ways

that the expanded role in nursing was implemented across the country during the 1970s, Allen (1977, 1999) found that it was perceived in one of two ways: either as a replacement function or a complementary one. In the former, NPs were vulnerable to the supply of physicians and considered an "assistant to the physician," whereas in the latter, the emphasis was on the unique and added value of NPs and their co-existence with others as a distinct healthcare professional.

Moreover, a double standard existed, whereby NPs were supported to practise in areas where physicians did not want to (i.e., rural and remote communities), but, otherwise, there was little perceived need for the role (CNA 2006; de Witt and Ploeg 2005). Similar opinions of the NP role existed in the United States and may have influenced the way it was perceived in Canada. For example, Roemer (1976: 41), a family physician, compared NPs to "medical corpsmen discharged from the military services," stating that NPs were acceptable for servicing the poor and that "in America or other affluent nations, to abandon primary care to others [such as NPs] is to acknowledge failure in medicine and inequity in society."

Other physicians have been more supportive of NP role integration within the healthcare system. In 1978, the president of the College of Family Physicians of Canada, Dr. Hollister King, noted that "the family practice nurse was never intended to provide cheaper medical care for the citizens of our country, but rather comprehensive care that the Canadian public would soon learn to appreciate" (King 1978: 21). Many of the 250 NPs who graduated from Canadian university programs between 1970 and 1983 continued to practise through the 1980s and 1990s, primarily in community health centres and northern remote health centres (Haines 1993).

Clinical Nurse Specialist

The impetus for the introduction of CNS roles arose after World War II, when the shortage of skilled nurses and progressive developments in healthcare science and technology led to the need for more advanced and specialized nursing roles and nurses with the knowledge and skills to support nursing practice at the bedside. An educator interview participant from Quebec comments:

> The CNS was introduced mainly in acute care … I think the main reason why we introduced the CNS role was because the level of care was getting more and more complex … we needed these CNSs in larger hospitals to promote a greater level of care and to promote continuing training [and] coaching and to create a dynamic in the nursing care field to improve the level of care. I think this was the main driver to include the CNS in the field.

The term "specialist" was one of the first used to describe what is today the clinical nurse specialist. In 1943, Frances Reiter introduced the term "nurse clinician"

to describe a nurse with advanced knowledge and clinical skills who was capable of providing a high level of patient care (Davies and Eng 1995; Hamric et al. 2009; Montemuro 1987; Reiter 1966). Over time, the CNA has put forth many iterations of Reiter's definition for the CNS role (1978, 1986, 2009).

Although not specifically designed to educate or produce CNSs, the University of Toronto introduced a master's degree program in nursing in 1970 that offered a focus on clinical specialization. By 1986, most CNSs practising in the role were prepared at a master's level (Montemuro 1987). Beaudoin et al. (1978) argued that the CNS role was more in keeping with nursing values, as opposed to the NP role, which was described as an extension of medicine because of the medical role functions it incorporated. Stevens (1976: 30) contended that the CNS role "has contributed so much, so rapidly, in attempts to professionalize nursing and to substantiate its existence as an independent profession."

The CNS role development and implementation was often challenged by issues related to role ambiguity, lack of involvement or recognition in the organizational structure, and lack of administrative support (Davies and Eng 1995; Hagan and Côté 1974; Ingram and Crooks 1991; Montemuro 1987). A quote from a health-care administrator participant supports these claims:

> I think what happened starting back in the late 60s or 70s, nurses who were prepared at the master's level – employers knew they wanted them and needed them, but they didn't quite know what to do with them, so they put them into CNS roles and that has happened over the last 20 or so years. So the role is very varied and not very well understood … I think that is part of the problem with the successful implementation – you don't have a clear role that you are implementing .... I think it is historical, it just happened that way. It's not a bad thing; that is just the history of the role.

Drivers for Development of Advanced Practice Nursing Roles: Late 1980s to Present

A number of initiatives related to advanced practice nursing were implemented at the federal level, for example, (1) the CNA's (2006) Dialogue on Advanced Nursing Practice (ANP), (2) the decade-long development and revisions to the Advanced Nursing Practice framework (CNA 2000, 2002, 2008), (3) a 10-year Chair Program (2001–2011) funded by the Canadian Health Services Research Foundation (CHSRF) and the Canadian Institutes of Health Research (CIHR) to increase Canada's capacity of nurse researchers to conduct policy and organizationally relevant research focused on advanced practice nursing, and (4) a decision support synthesis funded by the CHSRF, in partnership with the Office of

Nursing Policy of Health Canada, to inform the integration of CNSs and NPs in the Canadian healthcare system (DiCenso et al. 2010a).

At the provincial level, numerous initiatives have supported advanced practice nursing roles; for example, the Association of Registered Nurses of Newfoundland (1997) developed a Plan of Action for the Utilization of Nurses in Advanced Practices throughout Newfoundland and Labrador, the Registered Nurses' Association of Nova Scotia (1999) developed a Position Paper on Advanced Nursing Practice, and CHSRF supported work that resulted in a report on Advanced Nursing Practice: Opportunities and Challenges in British Columbia (Schreiber et al. 2003).

Nurse Practitioner

Due to rising healthcare costs during the early 1990s, a number of government-initiated healthcare reforms occurred with the goals of using resources more efficiently and placing more emphasis on health promotion and community-based care (Angus and Bourgeault 1999; deWitt and Ploeg 2005; Stoddart and Barer 1992). Stoddart and Barer (1992), in their national report "Toward Integrated Medical Resource Policies for Canada," argued for a reduction in the number of physicians in the healthcare system, recommending that other healthcare professionals should be substituted for physicians, "in which their superior effectiveness, appropriateness or efficiency has been demonstrated" (Stoddart and Barer 1992: 1654). Also, the release of the Regulated Health Professions Act (1991) "weakened medicine's jurisdictions by preventing any single profession from monopolizing health care" (deWitt and Ploeg 2005: 126). As a result, key tasks were organized and allocated according to their appropriateness for individual professions (Angus and Bourgeault 1999). In the meantime, concerns emerged about a future oversupply of physicians in urban settings, while rural and remote areas continued to be underserviced (deWitt and Ploeg; Haines 1993). All of these factors created a renewed interest in advanced practice nursing roles in the early 1990s, particularly for the NP role in Ontario. An interview participant adds,

> They [NPs] were part of solutions for other problems, for example, if there were times of shortages in primary care physicians and those sorts of things. When we got to the '90s, we recognized through a number of reports that there needed to be revitalization of primary care and that advanced practice roles may well be an important part of increasing access to primary care. Then the nurse practitioner program was reintroduced.

During the early 1990s, many nursing professional organizations began to advocate for revitalizing the NP role across Canada (Haines 1993). However, in Ontario, the new regulations proposed by the Ontario Ministry of Health and Long-Term

Care to increase the scope of practice of NPs created concern from the Ontario Medical Association and the Ontario College of Family Physicians. They argued that NPs would be more expensive and that the evidence used to support NP utilization in Ontario was flawed (Evans et al. 1999). Despite these arguments, two reports provided recommendations to the contrary – one commissioned by the CNA (Haines 1993) and another prepared at the request of the Ontario Ministry of Health's Nursing Secretariat (Mitchell et al. 1993). The Ontario government funded a consortium of 10 universities to mount a common post-baccalaureate primary healthcare NP educational program, beginning in 1995 (Cragg et al. 2003).

The momentum to support NP roles continued into the twenty-first century with the completion of two prominent studies: (a) "The Nature of the Extended/Expanded Nursing Role in Canada" (Advisory Committee on Health Human Resources et al. 2001), and (b) "Report on the Integration of Primary Health Care Nurse Practitioners into the Province of Ontario" (DiCenso et al. 2003). Also, two national reports (Kirby 2002; Romanow 2002) that have been influential in advancing the NP role were released. The Romanow report emphasized strategies to reduce wait times and suggested improvements to primary healthcare, including using nurses in case manager roles and better utilization of NPs:

> Across Canada, there has been an increasing emphasis on the role of nurse practitioners who can take on roles that traditionally have been performed only by physicians. This could even include providing nurse practitioners with admitting privileges to hospitals so that they could refer patients and begin initial treatment in hospitals (Romanow 2002: 106).

A new NP role emerged in the late 1980s, called the blended CNS/NP. This role was first introduced in Ontario in tertiary-level neonatal intensive care units (NICUs) to help offset the cutbacks in pediatric residents (Hunsberger et al. 1992; Pringle 2007). The addition of CNS to the title was deliberate, to legitimize the nonclinical advanced practice role dimensions, including education, research and leadership (DiCenso 1998; Hunsberger et al. 1992). A healthcare administrator interview participant describes:

> The individuals who came into those roles [CNS/NP] very much valued their background in nursing. They used their nursing knowledge, their assessment, their intervention, their skills and capacity to work with families, provide education to nurses … their view of the world was very much about the holistic needs of the patient and family and their desire to provide mentorship and professional development for nurses. All of those things came together for those individuals who were in that role, and

> they really saw themselves as providing components of the clinical nurse specialist role as well as the more medical components of the nurse practitioner role, and they did not want to give that up. They didn't want to be slotted into the view that they were medical replacements, because they really perceived themselves to be much more. And they are much more.

NPs in these roles were soon introduced into other specialty areas within hospitals because of a shortage of medical residents and lack of continuity of care for seriously ill patients (Pringle 2007). A few years later, as our focus group participants informed us, advanced practice nurses in these roles were renamed acute care NPs (ACNPs). The term ACNP was first coined in the United States to describe NPs working in critical care (Kleinpell 1997); it was later adopted in Canada in the mid-1990s to describe NPs working with specialized populations in acute care settings (Simpson 1997).

In contrast to the primary healthcare NP (PHCNP) programs, all ACNP education programs were developed at the graduate level throughout Canada (Alcock 1996; Dunn and Nicklin 1995; Faculté des sciences infirmières, Université de Montréal 2008; Haddad 1992; Roschkov et al. 2007). An interview participant offers her perspective about the ACNP programs:

> I think nursing leaders in organizations saw that as an opportunity to start to explore the nurse practitioner role for acute care. The University of Toronto in the early '90s put together a program – I guess it was around 1994 if I'm not mistaken – and that program has been evolving since that time at U of T. It started out to be a program that was a post-master's program that was offered to clinical nurse specialists.

The introduction of the ACNP role in neonatology in Ontario was based on a comprehensive research program (DiCenso 1998) that began with a needs assessment (Paes et al. 1989). This was followed by surveys to delineate the role (Hunsberger et al. 1992), evaluations of the graduate-level education program (Mitchell et al. 1991, 1995), a randomized controlled trial to evaluate the effectiveness of the role (Mitchell-DiCenso et al. 1996a) and assessments of team satisfaction with the role (Mitchell-DiCenso et al. 1996b). A healthcare administrator interview participant adds,

> I think there's absolutely no question that the nurse practitioner role, and particularly in NICU, has been very positive. I mean it's only enhanced the quality of the care that the infants receive; it's enhanced the continuity of care that the infants receive; it's enhanced the linkages and support, education and emotional support with families; and it's assisted in

> developing probably better collaboration among the teams and all of the disciplines that work [there].

Advanced practice nursing roles have evolved differently across provinces and territories for a number of reasons. In Quebec, the ACNP was the first NP role formally introduced into the healthcare system, according to this healthcare administrator:

> The first wave that the government allowed was in neonatal ICU, cardiology/cardiovascular and nephrology, and the reason why those were chosen versus let's say something like primary care was because politically it was a specialist in the university teaching hospitals who wanted, who really backed the support of advanced practice nurses and lobbied within their associations and at a larger collective with the government to say, we absolutely need these people ... on the other hand, the group of family practice professionals here in Quebec opposed the NPs.

Prior to 1998, all acute and primary care NPs working in Canada utilized medical directives or care protocols, under the delegation of physicians, to perform the competencies of their training that were beyond the scope of a registered nurse. In 1998, the first legal recognition for NP scope of practice began with legislated authority for primary care NPs in Ontario (CIHI and CNA 2006). Many jurisdictions implemented regulations for both PHCNPs and specialty/ACNPs at the same time (i.e., Alberta, British Columbia, Manitoba, Newfoundland, and Nova Scotia). Each jurisdiction provided the authority whereby the ACNP's professional scope of practice was defined (CIHI and CNA 2006). However, there were many barriers to practice. For example, the Public Hospitals Act in Ontario prohibited NPs from admitting or discharging a patient. Because of the Act, ACNPs in Ontario require medical directives even with regulation of their role. Jurisdictions where ACNPs have not been regulated require medical directives, negotiated at the institutional level, for ACNPs to carry out extended controlled acts. In most provinces and territories, successful completion of a national (or in some cases provincial) examination is a requirement for NP licensing. Currently the CNA offers examinations for family/all-ages (PHCNPs), adult NPs and pediatric NPs (for more information see http://www.cna-nurses.ca/CNA/nursing/npexam/default_e.aspx). Eligibility of candidates and permission to take these exams are determined by provincial/territory regulatory bodies. In Quebec, NPs must have a specialty certification in order to practise.

In 2005, the federal government provided funding for the Canadian Nurse Practitioner Initiative (CNPI), sponsored by the CNA. The CNPI mandate was to develop a framework for the integration and sustainability of the NP role in Canada's healthcare system (CNPI 2006). The final report, "Nurse Practitioners:

The Time is Now," along with its companion technical reports, includes discussion papers on (1) standardization of NP education, (2) regulation, (3) recruitment and retention, (4) professional practice and liability and (5) the core competency framework for NPs (CNPI 2006).

During the second wave of implementing the NP role in Canada, new challenges, particularly for nurses in rural and remote settings, emerged as NPs continued to develop. For instance, the variation in education, regulation and credentialling raised concerns about the competency of some NPs by both nursing and medical colleagues. This had negative consequences for establishing the credibility and legitimacy of the roles (Advisory Committee on Health Human Resources et al. 2001). Also, the requirement for NP licensure, and in some provinces master's education, created difficulties for nurses who practised in rural and remote regions throughout Canada. In 2008, only 5.9% of all registered nurses (RNs) practising in rural and remote areas in Canada were NPs, with the highest percentage in the territories (11.5%) and lowest in the Atlantic provinces (2.1%) (Stewart et al. 2005). Stewart and colleagues found that these nurses reported a need for more education, particularly for practice in remote areas. In addition, although primary care delivery to First Nations and Inuit communities has been improved by using NPs, an increased scope of practice has led to the need for higher education for NPs (Health Canada, and First Nations and Inuit Health Branch 2006). As a result, decreased numbers of RNs were able to practise as NPs in First Nations because of strict criteria for registration with the provincial and territory regulators (Health Canada, and First Nations and Inuit Health Branch 2006). A healthcare administrator interview participant elaborates on this issue:

> In 2002 the government changed legislation around NPs. Prior to that in Alberta, NPs were only working in our very remote northern areas of the province. So in 2002 the legislation changed, and the regulation was such that for people to practise as an NP they had to be registered on a roster with CARNA [College and Association of Registered Nurses of Alberta]. So at that point, we were starting at ground zero because there weren't any [licensed] ones [NPs].

Similar activities were occurring in Saskatchewan at about the same time, as a government stakeholder adds,

> Now back in the early '90s, it was recognized that the nurses were requiring more consistent education to work in these roles, particularly in the north. So an Advanced Clinical Nurse course was organized through the Saskatchewan Institute of Applied Science and Technology. This course started in 1993 and consisted of about six courses to help nurses upgrade

their education in diagnosis and prescribing of medications and common treatments like suturing.

Efforts have focused on overcoming some of the challenges that were previously experienced during the first wave of implementing NPs. For example, in Alberta, the Taber Project represents one initiative that was recognized as being a successful model in implementing the role of the NP (Reay et al. 2006). The success was largely due to the NP funding model, whereby costs were shared between the clinic and the provincial government so that the improved billing potential surpassed the costs of employing the NP (Reay et al. 2006). In most jurisdictions, the government pays for NP salaries because direct billing of provincial insurance plans is not permitted.

All provinces and all territories currently have legislation in place for the NP role (Government of Yukon 2009; Hass 2006). Alberta was the first province, in 1996, to legislate NPs to practise, and the Yukon was the most recent to pass legislation for NPs, in December 2009 (Government of Yukon, 2009; see Table 1). As of fall 2009, there were almost 2500 licensed NPs in Canada, over half of whom were in Ontario (see Table 1). National leaders in advanced practice nursing propose that the establishment of pan-Canadian legislation for NPs marks the beginning of a "third wave" of development of the NP role, one characterized by the recognition of NPs as essential components of the Canadian healthcare system (CNA 2006).

Table 1. NPs in Canada – year of legislation and workforce numbers by province

Province	Year legislation was passed	Nurse practitioner workforce (as of fall 2009)
Newfoundland	1997	104
Prince Edward Island	2006	3
Nova Scotia	2002	96
New Brunswick	2002	57
Quebec	2003	41
Ontario	1997	1,463
Manitoba	2005	75
Saskatchewan	2003	120
Alberta	1996	294
British Columbia	2005	129
Yukon	2009	NA

Table 1 Continued.

Northwest Territories/Nunavut	2004	60
Total		2442

Source: provincial/territorial regulators
NA=There are no licensed NPs in Yukon yet, as legislation just passed in 2009.

Clinical Nurse Specialist

Unlike the NP, the CNS role continued to formally exist and be supported during the 1980s and did not experience the same wave effect as the NP role did. However, the CNS role experienced different forms of ebbs and flows, largely reflective of the current needs and economic situation of the Canadian healthcare system.

In 1986, the CNA released its first position statement on the CNS role, describing it as,

> an expert practitioner who provides direct care to clients and serves as a role model and consultant to other practising nurses. The nurse participates in research to improve the quality of nursing care and communicates and uses research findings. The practice of the clinical nurse specialist is based on in-depth knowledge of nursing and the behavioural and biological sciences…. A CNS is a registered nurse who holds a master's degree in nursing and has expertise in a clinical nursing specialty (CNA 1986: 1).

Following this report, two provincial statements on the CNS role were released – one by the Registered Nurses' Association of Ontario (1991) and another by the Registered Nurses Association of British Columbia (1994) – that identified the major components of the CNS role as clinical practice, education, research, consultation and leadership/change agent. These components of the CNS role have remained constant throughout two subsequent iterations of CNA position statements on the CNS role in 2003 and 2009 (CNA 2003, 2009).

However, in Quebec, the inclusion of a clinical component to the CNS role has been a long-standing point of discussion among the licensing board, researchers and healthcare providers (Allard and Durand 2006; Beaudoin et al. 1978; Charchar et al. 2005; Laperrière 2006; Ordre des infirmières et infirmiers du Quebec (OIIQ) 2002, 2003; Roy et al. 2003). Historically, the lack of a clinical component was due to a shortage of master's-trained nurses and the need to strategically place them in administrative roles (Beaudoin et al. 1978). Yet international leaders in advanced practice nursing argue the clinical component is the hallmark of the CNS role (Hamric and Spross 1989).

One of the most significant developments in advancing the CNS role across Canada was the formation of a national interest group, initially called the Canadian Clinical Nurse Specialist Interest Group (CCNSIG) in 1989. Leaders within this group worked closely with CNSs from other provinces to help develop their own provincial organizations as well as organize conferences to advance their professional practice. In 1991, CCNSIG became an associate group of CNA. By 1998, CCNSIG was renamed the Canadian Association of Advanced Practice Nurses (CAAPN), to include other types of advanced practice nurses.

According to Hamric et al. (2009), the 1990s was a challenging decade for the sustainability of the CNS role in the United States due to financial problems and cutbacks within the healthcare system. During this time, CNSs tended to assume different positions such as administrators or staff educators (Hamric et al. 2009). However, toward the end of that decade, interest in the CNS role returned with the intent of bringing clinical leadership back into healthcare environments; this leadership was lacking due to reductions in nurse executive and nurse educator positions. The movement toward evidence-based practice has created greater need for the CNS role in practice settings to help staff nurses incorporate research into practice.

Unlike for NPs, no formal education program in Canada has been developed specifically for CNSs. Although graduate education is a standard precursor to becoming a CNS, graduate programs have not been specifically designed to meet the needs of CNSs but, rather, tend to be more generalized in nature. As a current co-chair of the CNS Council of Canada, Gauthier (2009) recommends standardizing CNS education across Canada at the specialization level, with a requirement of 500 clinical hours for a master's degree. This has been accepted as a requirement for CNSs practising in the United States. However, Calkin (2006) argues that the lack of clarity about the meaning of specialization in nursing and its relationship to advanced practice nursing has created barriers to embedding advanced practice nursing within the Canadian healthcare and educational systems. She claims "disciplinary education is the basis for graduate education for CNSs who develop a knowledge base and skills in applying concepts to healthcare challenges well beyond those developed in their basic education" (2006: 48). According to Alcock (1996), the most common areas of clinical specialization for the CNS were psychiatry, maternal/child, gerontology, palliative care, women's health, community health, oncology and pediatric chronic care.

In Quebec, the regulatory body, the Ordre des Professions, determines each professional group's scope of practice and regulates the use of the title "Specialist" (Bussières and Parent 2004). Professionals must complete specialized training in a recognized university program to use the terms "specialized" or "specialist."

Challenges to the development of the CNS role that were apparent during its initial implementation in the 1970s continued to plague its implementation in later years (Davies and Eng 1995; Fulton and Baldwin 2004; Ingram and Crooks 1991; Montemuro 1987). For example, Davies and Eng (1995) found that a complex interplay of factors including role clarity, organizational structure and administrative support influenced how well the CNS role was implemented. Moreover, the diversity and range of functioning among CNSs were apparent across healthcare agencies, with most of their time devoted to four components: practice, consultation, education and research (Davies and Eng 1995). Recommendations have been put forth to address some of these issues, such as standardizing the CNS role, by developing clear role definitions and promoting the use of similar job descriptions and position titles (CNA 2006). Basic structures and resources are also required to support the development of CNS roles and promote their sustainability within the Canadian healthcare system, such as standardized education, credentialling and regulation (Bryant-Lukosius et al. 2010).

Evaluations of the CNS role have been consistently positive, with improvements demonstrated in patient health status and satisfaction, quality of life, quality of care, health system costs and length of stay (Fulton and Baldwin 2004). However, very little of the research has been conducted in Canada (Bryant-Lukosius et al. 2010).

Based on CIHI data (2010), there were about 2,227 CNSs in Canada in 2008 (Table 2); however, the true number of CNSs is unknown because current CNS estimates are based on self-report and many of these individuals lack graduate education or specialty-based experience. Based on these data, the largest numbers of CNSs are found in British Columbia, Quebec and Ontario.

Table 2. CNSs in Canada – workforce numbers by province for 2009

Province	Clinical nurse specialist workforce
Newfoundland	25
Prince Edward Island	5
Nova Scotia	48
New Brunswick	25
Quebec	555
Ontario	415
Manitoba	115
Saskatchewan	63

Table 2 Continued.

Alberta.	303
British Columbia	663
Yukon	NA
Northwest Territories/Nunavut	10
Total	~2,227

Source: Canadian Institute for Health Information (CIHI 2010)
NA=Data not applicable or do not exist.

CNS positions are often vulnerable to being reduced or eliminated during times of poor hospital economic situations or financial cutbacks (CNA 2009). With the increased focus on NP roles and lack of recognition of the valued contribution of CNSs, some employers have shifted funding from CNS to NP positions (CNA 2006). Variability in CNS practice and the many role dimensions have led to role confusion and have made evaluation of role outcomes challenging (CNA 2006; Sparacino and Cartwright 2009). As a result, organizations and administrators struggle to appreciate CNS contributions for achieving clinical and institutional outcomes.

Momentum seems to be building in recognizing the importance and value of the CNS role internationally. For example, the American Nurses' Credentialing Center (ANCC) recommends employment of CNSs for hospitals to achieve "magnet status." To be deemed a "magnet" hospital, specific criteria need to be satisfied as a reflection of the strength and quality of nursing services. These include using evidence-based nursing to achieve excellent patient outcomes and maintaining a high level of job satisfaction and low staff nurse turnover rate (Center for Nursing Advocacy 2009). Walker et al. (2009) found that CNSs were perceived as important in achieving and maintaining magnet status within American hospitals. Within Canada, "as concern over the quality of care builds in the 21st century, there is reason to believe that the CNS role will regain prominence" (CNA 2008: 6).

Conclusion

Advanced practice nursing has evolved to meet gaps and emerging needs in the healthcare system. This historical analysis of the development of advanced practice nursing roles in Canada highlights a number of influential factors that have both facilitated and hindered the development of the roles, despite strong evidence to support their effectiveness. Understanding the theoretical, empirical and experiential efforts and achievements of the visionary leaders of the past will better position advanced practice nursing to

meet the healthcare needs of Canadians into the future. Given the progress over the past few decades, the future of advanced practice nursing within the Canadian healthcare system is promising.

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