NURSE PRACTITIONER-LED CLINCS IN BRITISH COLUMBIA

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Abstract

Nurse practitioners (NPs) are increasingly being recognized for their contributions to patient care and potential to improve the population's access to primary health care (Contandriopoulos et al., 2015). Ontario has been renowned for its innovation of the NP-led clinic model as a strategy for delivering primary health care to areas with high volumes of unattached patients: those who do not have a regular primary care provider (DiCenso et al., 2010). In contrast, British Columbia (BC) has lagged behind in the formation and utilization of NP-led clinics. This paper explores the evolution and utilization of NP-led clinics in Ontario, as well as the existence of similar models in BC. It identifies the major barriers to the development of NP-led clinics in BC and provides perspective as to why the NP-led clinic model has been considerably under implemented within the province. Based on this context, further research and strategies to better integrate NPs into the primary health care infrastructure of BC are suggested.

Keywords: nurse practitioner, nurse practitioner-led clinics, Ontario, British Columbia

Nurse Practitioner-Led Clinics in British Columbia

Chapter 1: Introduction

Primary health care is often understood as the first level of care and point of contact with primary care providers such as family physicians and nurse practitioners (Price, Baker, Golden, & Hannam, 2015); however, primary health care has also been described as a philosophy or approach (CNA, 2015). Primary health care is a principle-based, comprehensive approach with a focus on the way services are delivered to improve the health of populations (CNA, 2015). It is considered the foundation of any health care system (Price et al., 2015); with the capacity to control costs, improve patient outcomes, and support sustainability of health care systems (Contandriopoulos et al., 2016). Despite positive changes as a result of innovative strategies, Canada is behind in infrastructure and performance compared to other developed countries (Suter et al., 2017) and patient access to primary health care continues to be a significant problem (DiCenso et al., 2010).

Nurse practitioners (NPs) are becoming integral members of the primary health care team and have been shown to contribute to team functioning efficiency (Sangster-Gormley et al., 2015). NPs have consistently demonstrated provision of high quality care, that is both safe and effective (Bauer, 2010; Stanik-Hutt et al., 2013). There is a large body of evidence suggesting that NPs have the potential to improve accessibility of primary health care services while controlling for expenditures (Contadriopoulos et al., 2015). NP integration through the creation of NP-led clinics is one way to address the gap in patient access to primary health care (DiCenso et al., 2010). An NP-led clinic is an interprofessional team-based model for delivering comprehensive primary health care to populations, in which NPs provide the majority of care

(Heale & Pilon, 2012). Another critical component of this model, is the presence of NP leadership at all levels of the organization (DiCenso et al., 2010).

As part of primary health care reform in Ontario, NP-led clinics were introduced to improve access to primary health care, with the first clinic opening in Sudbury in 2007 (Heale, James, & Garceau, 2016; Heale, 2012). The emergence of the NP-led clinic model was in response to a significant number of unattached patients, which refers to those without a routine primary care provider (Heale & Pilon, 2012). Shortly after the introduction of the first clinic, the premier announced the development of 25 additional NP-led clinics across Ontario (Heale & Pilon, 2012). NP led-clinics have led to a reduction in the number of unattached patients within the province and have demonstrated high levels of patient satisfaction, including adequate time spent and a caring approach (DiCenso et al., 2010).

Over the last decade, team-based primary health care initiatives have been carried out across the provinces in attempt to improve access and promote continuity of care (DiCenso et al., 2010). The introduction of the NP led-clinic model was unique because it marked the first time for provider-led primary health care organizations in which funding was not based on physician reimbursement (Heale, James, & Garceau, 2016). This innovation, among others, catalyzed the movement for NPs to expand their full scope of practice (Heale, James, & Garceau, 2016).

Description of the Problem

Patient access to primary health care continues to be a significant problem in Canada (DiCenso et al., 2010). The utilization of NP-led clinics in Ontario has been used as one strategy to improve access to care in areas with a large proportion of unattached patients. As of 2017, Ontario successfully implemented 25 NP-led clinics (CBC, 2017), which increased access to

primary care and was associated with high levels of patient satisfaction (DiCenso et al., 2010). The use of NP-led clinics in British Columbia (BC) has been marginal, or perhaps under recognised, compared to the NP-led clinic movement in Ontario. Although BC has not had this recognition, it also remains unclear whether a NP-led clinic model for delivering primary health care currently exists in BC that meets the definitive criteria of the NP-led clinics in Ontario.

The NP role was established in British Columbia (BC) in 2005; however, it has been present for over 50 years in other places such as the United States (Sangster-Gormley et al., 2015). The NP movement in Ontario grew for decades prior to its legislation in 1998 (Heale, 2012). In comparison, the NP role is still relatively new in BC, presenting certain barriers to its integration but also providing opportunities for future change and impact on primary health care.

This paper will define the NP role and its evolution in Canada in order to understand the current context. It will then follow with a conceptual clarification of the NP-led clinic as a model for delivering primary health care, as well as an overview of Ontario's process in the development of NP-led clinics across the province. BC's current success in NP role integration will be reviewed as well as a discussion of the existence of NP-led clinics or similar models currently. In this paper, I aim to explore further NP integration in BC through developing NP-led clinics within the province. The potential benefits of NP-led clinics in BC will be highlighted as well as the potential barriers to the implementation of this type of model for delivering primary health care. I will summarize and evaluate BC's Nurse Practitioner Association (BCNPA) recent document on their view for the future of delivering primary health care in BC, including its mention or lack thereof in implementing NP-led clinics. Finally, reflecting on this information I

will share my opinion on whether NP implementation through the NP-led clinic model would be the right fit for BC moving forward.

Search Strategy

A systematic literature search was conducted using two databases, CINAHL and Google Scholar, that index large numbers of studies across multiple disciplines. Search strategies involved using various combinations of the following keywords and subject headings: “nurse practitioner”, “advanced practice nursing”, “history”, “evolution”, “NP-led clinic OR nurse practitioner-led clinic”, “Ontario”, and “British Columbia OR BC”. Search parameters were set to ensure articles were in English and within the last 10 years. After gathering a few key reports and articles, hand searches of the reference lists were performed as a guide to further my literature search. I also met with an experienced researcher in the organization, integration, and delivery of primary health care services. As well, I accessed additional resources on the internet through web searches conducted on Google, including documents and webpages generated by the government, nursing associations, and nursing colleges.

Description of the Project

This culminating project is part of the degree requirements for the Master of Nursing – Nurse Practitioner Program at the University of British Columbia. Based on this scoping review of the literature and its findings, a manuscript in the form of a commentary article was prepared for submission for publication. A well-recognized scholarly journal for nursing, the Canadian Journal of Nursing Leadership, was identified as a potential target audience for this topic. Targeting a Canadian journal would be most applicable because the NP-clinic model and discussion regarding NP-led clinic utilization was Canadian province specific. The Canadian

Journal of Nursing Leadership covers issues concerning to politics, policy, theory, and innovations that contribute to leadership in nursing; all of these themes tie in closely to NP implementation through NP-led clinics.

NP-led models have demonstrated increased patient access, improved outcomes, and patient care satisfaction. I think it's important for nursing to understand the structure of the NP-led clinic and its potential benefits to improve primary health care. The intention of submitting a manuscript for publication is to create awareness amongst NPs and other health care providers the potential benefits of the NP-led clinic model, the utilization of NP-led clinics in Ontario, and the barriers which contribute to the underutilization of NP-led clinics in BC.

Chapter 2: Contextual Overview

Defining the Nurse Practitioner

The NP role falls under the umbrella term of advanced practice nursing, describing an advanced level of clinical nursing practice achieved through graduate education preparation, and expanded nursing knowledge and expertise to meet the health needs of individuals, families, groups, and populations (Sangster-Gormley, Martin-Misener, Downe-Wamboldt, & Dicenso, 2011). NPs are described by the Canadian Nurses Association (CNA) as registered nurses with additional education and experience who can demonstrate the competencies to diagnose, order and interpret diagnostic tests, prescribe medications, and perform specific procedures within their legislated scope of practice (CNA, 2009). In Canada, the provincial and territorial nursing regulatory bodies, also known as the Colleges, are responsible for ensuring NPs meet the competency requirements to practice. The Colleges are responsible for licensing the NPs,

identifying scope and standards of practice, and approving NP education programs (Wong & Farrally, 2013).

Evolution of the Nurse Practitioner Role in Canada

The following is an overview of the evolution of the NP role in Canada. It looks at role development, utilization, and historical influences, which have led to the current position of the NP role within the health care system. By understanding how the NP role has evolved over time and by understanding the differences between Ontario and BC, we can better gain insight into the current state of NP integration within these provinces.

According to the article by Kaasalainen et al. (2010), "An Historical Overview of the Development of Advanced Practice Nursing Roles in Canada", advanced practice nursing has existed in Canada for over 100 years. Nurses in expanded roles can be traced back to the 1890s when outpost nurses practiced independently in rural and remote areas in Canada (Kaasalainen et al., 2010). A demand for expanded nursing roles had occurred due to the chronic physician shortage in these isolated areas (Staples & Ray, 2016). Outpost nurses were responsible for providing primary care services, that were traditionally carried out by general practitioners, for these underserviced populations (Staples & Ray, 2016). And yet, early forms of advanced practice nursing often did not receive full acknowledgment within the Canadian health care system (Staples & Ray, 2016).

It was in the 1960s and early 1970s, in which the more formal NP role was established (Kaasalainen, 2010). Implementation of the NP role was facilitated by (i) the introduction of universal publicly funded health care system, (ii) a perceived shortage of physicians, (iii) an increased focus on primary health care, (iv) and an increased trend towards physician

specialization (Kaasalainen, 2010). It began in 1967, when the first education program was developed for outpost nurses at Dalhousie University in Halifax, Nova Scotia (Staples & Ray, 2016). Soon afterwards, NP programs focused on preparing expanded role nurses for family practice in urban settings began to develop (Kaasalainen, 2010; Staples & Ray, 2016). These programs were first introduced in 1971 at McMaster University in Hamilton, Ontario and McGill University in Montreal, Quebec (Staples & Ray, 2016).

In 1972, the Boudreau Report was released by the Committee on Nurse Practitioners, commissioned by the Department of National Health and Welfare (Staples & Ray, 2016). In this report, it was recommended that NP integration be a strong priority in order to meet the primary health care needs of Canadians (Staples & Ray, 2016). After the release of the Boudreau report (1972), the Canadian Nurses Association and the Canadian Medical Association came together to issue a Joint Statement that recognized the interdependent nature of nursing and physician roles with the vision to increase nursing responsibilities to maintain health for Canadians (Kaasalainen, 2010). Following this, provincial nursing groups across Canada advocated to legitimize the NP role. More education programs were developed to prepare nurses with an expanded scope to practice competently in both primary health care and rural nursing (Kaasalainen, 2010). By 1972, six more universities followed with similar programs to those offered at McMaster University and McGill University (Staples & Ray, 2016).

There were numerous barriers that impeded the implementation of the NP role, including but not limited to education and funding. In the 1970s, there was a lack of consistency regarding educational requirements for advanced practice nursing roles, which significantly hindered the development of the NP role (Kaasaleainen, 2010). Despite research studies demonstrating a high

level of patient satisfaction and safety when being cared for by an NP, it was not enough to sustain the role (Kaasaleainen, 2010). Additionally, provincial governments were not providing the funding to support NP services; therefore, it was the responsibility of the physicians partnered with NPs to compensate them for their services (Kaasaleaninen, 2010). This was unattractive to physicians, making them less likely to work with NPs which then contributed to the failure of role integration (Kaasaleainen, 2010). By the 1980s, NP education programs stopped being implemented due to a number of factors: perceived oversupply in physicians, inadequate support from medicine, nursing, and policy-makers; lack of role awareness by the community; lack of funding; and failure to develop regulation and legislation for an extended scope of practice (Kaasaleaninen, 2010; Staples & Ray, 2016).

Implementing the NP role was again revisited in the 1990s when there was a perceived undersupply of physicians (Staples & Ray, 2016). Additionally, increasing health care costs and a shift in focus on health promotion and community-based care further increased interest in developing the NP role (Kaasalainen, 2010). In 1992, a national report by Stoddart & Barer argued that the number of physicians should be reduced and replaced by other health care professionals who can demonstrate the same efficiency and skills for the job (Kaasalainen, 2010). At the time, a concern emerged that rural and remote areas lacked sufficient numbers of physicians, while an overabundance of physicians existed in urban settings (deWitt and Ploeg, 2005). This is when a revitalization of primary health care was recognized and the importance of increasing access to primary care could be achieved through NPs (Kaasalainen, 2010).

Many nursing professional organizations began to advocate for the NP role across Canada in terms of developing regulations and education requirements (Kaasalanein, 2010).

Another driver to highlight for the NP movement is the Canadian Nurse Practitioner Initiative (CNPI). This project, funded by Health Canada in 2005, involved a group of stakeholders nationwide coming together to produce a report called "Nurse Practitioners: The Time is Now – A solution to improving and reducing wait times in Canada" (CNPI, 2006). Information was gathered from a range of stakeholders including government representatives, nursing organizations, other professions, employers, and educators (CNPI, 2006). The information was compiled to develop a national framework to support the continuing integration of NPs into Canada's health care system.

The Canadian Nursing Association (CNA) in their report "Canadian Nurse Practitioner Initiative: A 10 year Retrospective" suggests a significant progress in the evolution of NPs since the CNPI recommendations presented 10 years ago (CNA, 2016). The number of licensed NPs in Canada had grown significantly, with a high employment rate of greater than 95% (CNA, 2016). Three out of four NPs worked in the family practice/primary care stream, practicing in a wide variety of settings (CNA, 2016). By 2009, all provinces and territories had legislation in place for NPs in Canada with approximately 2500 licenced NPs across Canada (Kaasalanein, 2010).

Nurse Practitioners in Ontario

The NP movement in Ontario existed for decades prior to its legislation in 1998 (Heale, 2012). NPs have been working in Ontario since the early 1970s when the role was first introduced for nurses practicing in northern communities who required an expanded scope of practice to meet the complex needs of this population (NPAO, n.d.). Although the NP movement existed in Ontario in the 1970s and 1980s, these were volatile times in terms of interest in NP role implementation (Heale, 2012). In the 1980s, Ontario was affected by the closure of NP

education programs. Despite this interruption, approximately 250 NPs continued to practice in Ontario in the 1980s and early 1990s (NPAO, n.d.). It was in the mid-1990s when Ontario government seriously considered NP practice (Heale, 2012). NP programs were re-established in 1995 and in 1998, the Expanded Nursing Services for Patients Act was enacted (NPAO, n.d.). This authorized NPs to practice within a broader scope of practice which allowed diagnosing, prescribing of specified medications, and ordering certain tests, x-rays, and ultrasounds (NPAO, n.d.).

NPs are represented in Ontario through The Nurse Practitioners' Association of Ontario (NPAO). The NPAO was founded in 1973, initially representing NPs working in primary health care (NPAO, n.d.). It has since expanded its mandate to include NPs working in additional settings (NPAO, n.d.). The association represents NPs as a whole and pushes for integration and policies that support integration of NPs into the health care system (NPAO, n.d.). Ontario currently offers NP education programs at ten universities across the province (CNO, 2016). The University of Toronto is the only school in Ontario to offer NP programs for all three streams: Primary Health Care, Adult Speciality, and Paediatric Specialty (CNO, 2016).

Nurse Practitioners in British Columbia

BC was the one of the last provinces to implement legislation for the regulation of the NP role (Sangster-Gormley, Martin-Misener, & Burge, 2013). The British Columbia Nurse Practitioner Association (BCNPA) was created in 2004 to advocate for the advancement of the NP role (BCNPA, 2017). In 2005, the BC government enacted legislation which allowed licenced NPs to practice autonomously with the intent to help alleviate gaps in access to primary care (Prodan-Bhalla & Scott, 2017). NPs in BC are licensed and regulated by the College of

Registered Nurses of British Columbia (CRNBC). Three streams of NPs are recognized by CRNBC including: family, adult, and pediatric (BCNPA, 2018).

An important momentum for NP implementation in BC was the Nurse Practitioners for British Columbia (NP4BC) program (BC Ministry of Health, n.d.). This program supported optimization of NPs skills and competencies within primary health care, as well as provided opportunities for NPs to practice as independent practitioners with collaborative relationships with other health care providers (BC Ministry of Health, n.d.). Through this initiative, funding was provided for new NP positions from 2012 to 2015, with the intent to increase access to primary health care services for at-risk or vulnerable populations and fulfill local gaps in care (BC Ministry of Health, n.d.). The goal was to target identified gaps within the community and be focused on longitudinal care and attachment, to establish a continuous relationship with health care providers for comprehensive health care (BC Ministry of Health, n.d.).

The funding for these positions came from the Ministry of Health and funneled to Health Authorities to support the hiring of NPs (BC Ministry of Health, n.d.). Funding was assigned through the process of proposal submissions and selected in accordance to principles outlined by the program. Funding was strictly dedicated for NP positions in primary health care and required NPs to practice as part of a multidisciplinary team (BC Ministry of Health, n.d.). Prior to NP4BC, there were few NP positions and NPs trained in BC were being lost to other provinces and the United States (Schultz, 2016). NP4BC allowed NPs the opportunity to demonstrate and prove to communities and the health care system the benefits of the NP role in BC (Schultz, 2016). According to CRNBC, as of the year 2017 there were 425 NPs in BC (including

provisional) currently working independently and in collaboration with other health care professionals (BCNPA, 2018).

Chapter 3: Nurse Practitioner-Led Clinics

Conceptual Exploration

Generalized descriptions of the NP-led clinic model in Ontario exists in the literature. Price et al. (2015) defines NP-led clinics through its structure and function: as teams led by NPs, consisting of registered nurses, collaborating physicians, and other interprofesssional health care providers to provide comprehensive primary care services to unattached patients (Price et al., 2015). It is governed by a Board of Directors and funded through agreement between the NP-led clinic Board and the Ministry (Price et al., 2015).

DiCenso et al. (2010) provides a description of the NP-led clinic model by highlighting the specific activities carried out within this model. This includes (i) the provision of comprehensive family health care services within an interprofessional team, (ii) providing care coordination by connecting patients to other services of the health care system (such as mental health, long-term care, public health, etc.), (iii) having an strong focus on health promotion and illness prevention, (iv) facilitating the development of community-based chronic disease management programs, (v) providing patient-centred care, (vi) linking with other healthcare organizations at the community level to address community needs and (vii) using information technology to link patient records across health care settings.

Virani (2012) provides a generalized description of nurse-led models, including clinics led by NPs. Nurse-led models are described as having a formal structure where the nurse provides holistic care, including: assessment, planning, treatment, patient education, and

attention to social determinants of health (Virani, 2012). Under this model nurses practice independently and have a central role in governance and leadership; however, collaborate with other health care providers (Virani, 2012). Highlighted is the association or dependence of nurse-led models on a lack of access to primary care and a shortage of physicians (Virani, 2012).

Heale (2012) depicts the NP-led clinic model through a diagram to demonstrate how NP involvement is fundamental to every level of the organization (see Appendix A, Figure 1). The role of the clinic director is fulfilled by a NP, as well as NPs represent 51% of the community board of directors (Heale, 2012). In addition, patients who register at the clinic are attached to an NP who then becomes their primary care provider and accesses other services provided by the interprofessional team as required (Heale, 2012).

An essential component of the NP-led clinic is the provision of comprehensive primary health care through an interprofessional team approach (Heale & Pilon, 2012). A distinction between the NP-led clinics compared to other team-based models providing primary health care, such as family health teams, is that the ratio of physicians to NPs is lower with the physicians acting in more of a consulting role rather than lead provider (DiCenso et al., 2010). In addition the leadership and governance is delivered with an NP focus and voice (Heale & Butcher, 2012).

Nurse Practitioner-Led Clinic Movement in Ontario

Although NP practice grew in Ontario, the issue of unattached patients remained (Heale, 2012). A few NPs from Sudbury recognized the potential of an NP-led model of care to help close the gap in access to primary health care services in their community (Heale, 2012). Lobbying efforts for the approval of a NP-led clinic began in 2006, catching the attention of the media, community members, provincial nursing organization, and the Ministry of Health and

Long-Term Care (Heale, 2012). In 2007, the first NP-led clinic opened in Sudbury, Ontario (DiCenso et al., 2010).

At the time of application for the clinic, 30,000 residents in Sudbury did not have access to a regular family physician (DiCenso et al., 2010). In 2008, a year after the NP-led clinics opened, a patient satisfaction survey was conducted which indicated a high level of patient satisfaction and highlighted the NPs thoroughness, quality of care, adequate time spent, and caring attitude (DiCenso et al. 2010). This NP-led clinic helped to overcome many of the barriers to NP practice endured in Ontario while also impacting access to care (Heale, 2012). In 2012, the Sudbury NP-led clinic had approximately 3500 residents, who were previously unattached, registered to the clinic with registration steadily increasing (Heale, 2012).

Shortly thereafter, the premier announced the development of 25 additional NP-led clinics across Ontario (Heale & Pilon, 2012). In 2010, the Ministry of Health and Long-Term Care had provided funding for 26 NP-led clinics (DiCenso et al., 2010). CBC highlights the development of 25 NP-led clinics in an article from June, 2017 (CBC, 2017); however, there are 27 NP-led clinics listed on NPAO's website to date (NPAO, n.d.). The NP-led clinic was presented as a new model of care in which NPs work in collaboration with other physicians and health care professionals to provide comprehensive health care to a defined population (DiCenso et al., 2010). The clinics were targeted to areas in which there was a lack of access and a high volume of patients who were not attached to a primary care provider (DiCenso et al., 2010).

Chapter 4: British Columbia's Current State

Nurse Practitioner Role Integration

An evaluation of NP integration into BC's healthcare system was carried out with a report released in 2015 by the NP Integration Research Team (Sangster-Gormley et al., 2015). At the time of the study, there was a strong desire from policy makers to understand the implications for patients and the healthcare system, as well as the impact on collaborative health care teams with the introduction of NPs (Sangster-Gormley et al., 2015). Data was collected from 2011 to 2013 on NP practice settings (see Appendix B, Table 1) and geographic distribution of NPs within the province (see Appendix B, Figure 1) (Sangster-Gormley et al., 2015). When comparing the geographic distribution of NPs to the population distribution of BC residents, there is a larger percentage of NPs working in rural areas and a smaller number of NPs working in larger urban centres in relation to population size. This demonstrates that NPs are geographically spread throughout the province, with adequate representation in rural and remote areas of BC (Sangster-Gormley et al., 2015). The results also showed that the majority of NPs worked in community based/primary health care settings (Sangster-Gormley et al., 2015).

Rather than working in conventional primary care practices, NPs have been deployed to work with specialized populations within BC. NP practice in BC can be described as either condition-focused or population-based focus. Condition-focused is when the NP sees patients with a specific condition such as heart failure or chronic pain (Heale, 2012). Within a population-based focus, the NP is working with a specific type of patient or geographic location (Heale, 2012). Although the majority of NPs are practicing in primary health care settings, most are caring for high needs populations with complex health problems and social issues, such as First Nations, homeless, frail seniors, and new immigrants (Sangster-Gormley et al., 2015). In a study by Housden (2016) on implementing NP-led group medical visits in BC, one NP describes

this practice strategy as NPs getting slotted into “niche practices”, assuming temporary ownership for these patients for either a certain time frame or for a certain condition.

Existence of Nurse Practitioner-Led Clinics

Assessing the existence of NP-led clinics or a similar model in BC is challenging; it is less clear whether NP-led clinics have been utilized as a primary care model within the province. The BCNPA website lists a number of areas in which one may find NPs working in BC. Included in BCNPA’s list are NP-led clinics (BCNPA, 2018); however, when conducting a google search for “NP-led clinic” OR “nurse practitioner-led clinic” the results are overwhelming in its association to the NP-led clinics that exist in Ontario. With the exception of BCNPA’s webpage, the term “NP-led clinic” does not appear to exist in BC when conducting a search on the internet, nor was an NP-led clinic model in BC apparent within the literature. When searching the term “NP-led clinic” within Google, the results were limited to the development of NP-led clinics in Ontario and there was no indication of the existence of NP-led clinics in BC.

According to an expert on advanced nursing practice roles and integration in the health care system, BC has steered away from the term “NP-led” (E. Sangster-Gormley, personal communication, November 6, 2017). Although there is no literature to support this statement, it appears that clinics which have a strong NP disposition are not given the title of a “NP-led clinic”. One may also argue that NP-led clinics do exist in BC depending on what defines a NP-led clinic. To put forth this idea, an example of a primary health care delivery model in BC which may demonstrate similarities to the NP-led clinic model in Ontario, is the “Responsive, Interdisciplinary, Intersectoral, Community, Health, Education, and Research” (RICHER) model.

The RICHER model. The RICHER program, located in Vancouver, is associated with BC Children's Hospital and funded through Provincial Health Services Authority. The RICHER model evolved in partnership between a pediatrician Christine Loock and NP Lorine Scott. Over time, the team expanded to currently include 4 full-time NPs and 1.2 full-time pediatricians (G. McIntosh, personal communication, March 9, 2018). The goal of the clinic is to provide unattached children and families the opportunity to be linked to primary health care and specialized pediatric services (Lynam et al., 2010). That being said, patients and families are not excluded from services at the RICHER clinic if they have already been attached to a health care provider elsewhere, but rather, in such circumstances, the focus is on responding to immediate concerns and/or coordinating services and linking back to the regular provider if that is desired by the patient (G. McIntosh, personal communication, March 9, 2018).

Within the RICHER clinical program, NPs are the primary care providers and point of entry to primary health care services (Lynam et al., 2010; Lynam, Scott, Loock, & Wong, 2011). Patients are attached to a specific NP for responsibility of care, but able to access care through others in the clinical group practice (G. McIntosh, personal communication, March 9, 2018). The criteria for attachment to the clinic remains loosely defined by the mandate to serve children, youth, and their families who face barriers to accessing traditional health services (G. McIntosh, personal communication, March 9, 2018), allowing the clinic to respond and evolve according to community needs. RICHER is an innovative model for delivering primary health care that addresses health inequities and has a strong focus on other social determinants of health such as housing or support networks (Wong, Lynam, Khan, Scott, & Loock, 2012). It is based on community partnership, community engagement, and public participation (Wong et al., 2012).

The RICHER clinic is similar to the NP-led clinic model such that the clinic is placed in an underserved community and the target population are children and youth who are unattached to a primary care provider. Within the RICHER model, NPs are the leading primary care providers, being utilized as a link for attachment to primary health care and appropriate specialized services. There is a greater ratio of NP time to physician time, with general practitioners essentially being absent from the team, and limiting physician inclusion to pediatricians and other specialized services. NPs act in leadership roles within the RICHER model, sharing the responsibilities equally among the group of NPs (G. McIntosh, personal communication, March 9, 2018). There is horizontal governance between the physicians and NPs with no external governing board (G. McIntosh, personal communication, March 9, 2018). The RICHER model mirrors some of the aspects of the NP-led clinics in Ontario, including a higher NP to physician ratio, NP leadership roles, and targeting populations with a high proportion of unattached patients.

Chapter 5: Implementing Nurse Practitioner-Led Clinics in British Columbia

Potential Benefits of Nurse Practitioner-Led Clinics

Improved patient access. Patient access to primary health care continues to be a significant problem in Canada (DiCenso et al., 2010). Health care access has been considered a social determinant of health, influencing health and well-being (McGibbon, Etowa, & McPherson, 2008). Access not only refers to the availability of health care services, but also to the quality and effectiveness of care received by patients (McGibbon et al., 2008). Contributing largely to the issue of lack of access, is the large volume of unattached patients: those who do not have a regular primary care provider (Crooks, Agarwal, & Harrison, 2012). This often leaves

patients reliant on walk-in clinics and emergency departments for fundamental health care needs and preventative services (Crooks et al., 2012). NP-led clinics have the potential to increase access to primary health care more efficiently by decreasing wait times and improving physical access (Virani, 2012). In addition, NPs are well positioned to advocate and promote equity in access to primary health care services (McGibbon et al., 2008). The integration of NP-led clinics could be utilized to reduce these inequities in access to care by targeting populations in which health care access has been hindered by the social, economic, and political circumstances.

When the NP role was first introduced in 2005, one of BC's Ministry of Health's mandates was to fund NP integration to increase access to primary health care (Sangster-Gormley et al., 2015). Access included comprehensive, continuity and convenience of care (Sangster-Gormley et al., 2015). In 2014, the proportion of BC residents who reported not having a regular family physician was on par with the national average of 14.9% (Statistics Canada, 2015). However, this has increased since 2005, in which 10.2% of BC residents had reported not having a regular family physician (Statistics Canada, 2005). The most common reasons nationwide for not having a primary care provider include: they had not looked for a family physician (45.9%), family physicians in their area were not taking new patients (21.5%), their family physician had retired or moved from the area (20.2%), and unavailability of family physicians in their area (14.4%) (Statistics Canada, 2015).

The previous data on BC's proportion of unattached patients demonstrates an environment such that NP-led clinics could potentially improve the number of BC residents that are not attached to a primary care provider. NP-led clinics have demonstrated that in settings with a physician shortage and a large volume of patients without a regular family physician, NPs

working to their full scope of practice can improve patient access to primary health care and reduce the number of unattached patients within the community (DiCenso et al., 2010).

Patient outcomes. NP-led clinics address complex health care issues including chronic disease, health promotion, and disease prevention through screening and monitoring with the potential to improve the health and social outcomes of target groups (Virani, 2012). A multiple case study conducted by Heale, James, & Garceau (2016) revealed that NPs, as the primary care providers in NP-led clinics, positively impacted the health of complex patients such as those with multiple comorbidities. The organizational process and structure of NP-led clinics allows patients to see their primary NP on a regular basis which allows for a more complete and thorough plan of care for the management of chronic disease (Heale, James, & Garceau, 2016). Patients are not restricted in the number of visits they can schedule with their NP and are able to address many problems in each visit. This is very different from most physician-based practices where patients are limited to address one issue each visit (Heale, James, & Garceau, 2016).

In addition to regular office visits, continuity of care is also important in relation to patient outcomes. NP-led clinics promote continuity of care by having patients register with the NP-led clinic itself rather than with a specific provider, therefore, the patient remains attached to the clinic and continues receiving care even if the NP leaves the clinic (DiCenso et al., 2010). NP-led clinics also improve coordination of care through linking primary care with community-based prevention programs (Virani, 2012).

Potential Barriers to Implementing Nurse Practitioner-Led Clinics

Physician attitude. BC is not unique in terms of the challenges presented with NP implementation and the resistance from the medical profession (Wong & Farrally, 2013). The

introduction of NP-led clinics in Ontario led to unplanned consequences for the NP and family physician relationship (Donald et al., 2010). Despite the intent of the model to facilitate NP collaboration with physicians to provide primary health care to those who lack a primary care provider, there was strong opposition from the Ontario Medical Association (OMA) (Donald et al., 2010). The OMA alleged that NP-led clinics promote an independent practice model which conflicts with the principles and philosophy of collaborative practice (DiCenso et al., 2010). The OMA stated that there was not enough evidence to suggest that NP-clinics provide high quality care, advocating for physicians to be the dominant primary care provider (DiCenso et al., 2010). Even though NPs were able to develop strong collaborative relations with consulting physicians and other members of the interprofessional team (Donald et al., 2010), the same line of argument could be carried out by the medical association for BC (Doctors of BC) with the establishment of NP-led clinics. In addition, moving toward a team-based approach requires a cultural shift that may be challenging for those physicians who are accustomed to being the team leader (DiCenso et al., 2010; Hutchinson, 2008).

Physician dominance. In 2002, the General Practice Services Committee (GPSC) was created under what is known as the Physician Master Agreement. GPSC is a joint committee between the Ministry of Health, BC Medical Association (now Doctors of BC), and the Society of General Practitioners of BC (Wong & Farrally, 2013). The GPSC has given physicians access to certain funds by the Ministry of Health that are intended to support and improve family physician practice (Misfeldt et al., 2017). The structure of this committee includes six representatives from Doctors of BC and six representatives from the BC Ministry of Health, as well as representatives from the six BC health authorities (GPSC, n.d.).

The GPSC has allowed physicians to be influential in primary health care reform in BC for a few reasons. Through the GPSC, physicians have been noted to have regular opportunities to meet with leading government officials, which gives them opportunity to influence the direction of primary health care transformation (Misfeldt et al., 2017). In addition, dedicated funds flow through GPSC, allowing physician representatives to impact the allocation of funding to certain areas of primary health care (Misfeldt et al., 2017). Finally, there is a lack of representation from other interdisciplinary health care providers, giving physicians a strong voice at the table (Misfelt et al., 2017). This enables physicians to influence decisions relating to policy and funding allocation that fits their priorities and desires.

The lack of representation by other providers and stakeholders among the GPSC has been proposed as a primary reason for the lack of team-based primary care delivery models in BC currently (Misfeldt et al., 2017). It has been argued that policies have been driven by the needs of medicine and not what patients need, in which a physician-led model has been promoted instead of a team-based model (Misfeldt et al., 2017). NP-led clinics are a type of team-based model that have not been utilized to the full capacity in BC. That being said, with a lack of NP representation at the GPSC table, it is unlikely that NP-led clinics would be considered as a leading strategy to improve access to primary health care.

Funding & remuneration. As with any new innovation in health care, funding always plays a major role in the success of its operation. Not surprisingly, many of the limitations experienced by NP-led clinic implementation in Ontario was due to funding. This included a lack of funding for sufficient space to run the clinic as well as a shortage of sufficient funding to reimburse physician consultation (DiCenso et al., 2010).

Implementation of team-based models in BC has already faced challenges in terms of funding streams to support the incorporation of an interprofessional team (Misfeldt et al., 2017). NPs have been funded primarily through the health authorities to practice in primary health care clinics (Misfeldt et al., 2017). Access to funding for NP services has been unevenly dispersed across the province, with only pockets of money dedicated to NP services (Misfeldt et al., 2017). There has been a lack of targeted provincial funding for team-based models, which would be required for the implementation and sustainability of team-based models, such as NP-led clinics.

Many Canadian provinces have moved toward a blended payment arrangement for physicians, with a significant decrease in the percentage of income received from a fee-for-service (FFS) model (Strumf et al., 2012). However, the extent to which this transition has occurred varies greatly by province (Strumf et al., 2012). While Ontario has demonstrated great success with this transition, BC's payment model predominantly remains within the FFS structure (Strumf et al., 2012). The FFS model, as the current compensation model for primary care physicians, has been faulted such that it does not promote team-based care (Misfeldt et al., 2017). In addition, funding streams present another challenge when implementing a type of team-based model (Misfeldt et al., 2017).

FFS acts as a barrier for NP implementation because physicians' income is based on volume and NPs have the potential to decrease that income by taking away some of their clientele. Therefore, NP integration into a FFS practice is more likely to be successful if the practice is at full capacity and there remains "unattached" patients in the community (DiCenso et al., 2010). In this setting, the volume of patients seen by the physician does not decline, and thus does not result in a financial loss for the physician (DiCenso et al., 2010). Moving forward, it

would be important that the NP-led clinics target populations with a significant proportion of unattached patients as to not to take away from the potential profits of physicians and be perceived as a threat to their earning potential.

Chapter 6: Discussion

British Columbia Nurse Practitioner Association's Vision

Recently, the British Columbia Nurse Practitioner Association (BCNPA) produced a document titled, "Primary Care Transformation in British Columbia: A New Model to Integrate Nurse Practitioners". BCNPA proposes a model for delivering primary health care that encourages a focus on multidisciplinary teams, shared governance, and patient-centered care (Prodan-Bhalla & Scott, 2016). Within this model, the vision is to incorporate the NP workforce in a strong position to support the Ministry of Health's goal to ensure attachment to a primary care provider (Prodan-Bhalla & Scott, 2016).

Within their proposal, the BCNPA emphasize the importance of shared governance (Prodan-Bhalla & Scott, 2016). To truly achieve a patient-centred focus, the most appropriate health care provider would be selected by the members of the interprofessional team (Prodan-Bhalla & Scott, 2016). This means that the care of the patient is not necessarily physician-led, but it could be a NP, social worker, or other health care professional that best fits the health care requirements for that patient. BCNPA supports a primary health care reform that aims to transition the current model in to a more team-based model, in which patients are attached to the health care team as a whole. This transition would require a cultural shift from a single provider leading the patient's care, to having a multidisciplinary team approach to providing care (Prodan-Bhalla & Scott, 2016).

Although components of the model proposed by BCNPA aligns with the structure of a NP-led clinic, including the development of a interprofessonal team to care for patients, they summarize their idea of transformation for primary care by asking the Ministry of Health to implement a "interdisciplinary primary health team model that is not led by NPs or GPs but by communities and patients," (Prodan-Bhalla & Scott, 2016, p. 22). This statement does not support implementation of a model that is NP-led, such as the NP-led clinic. BCNPA proposed an implementation process that is based on assessing community needs and setting up interdisciplinary primary health care teams in areas with the highest health care requirements (Prodan-Bhalla & Scott, 2016). Instead it supports a team-based model, in which communities and patients guide the appropriate care, including: clinic locations, available health care services, and community resources.

The Ontario Model in British Columbia

The NP-led clinic model in Ontario has aspects that I think are important moving forward, such as the strong emphasis on nursing leadership. Within the Ontario NP-led clinic model, nursing leadership is carried out by having an NP as the clinic director and a governance board that has at least 51% NP representation (Heale, 2012). This allow NPs to have a voice and to be able to share their perspective from a nursing lens, having a direct influence on the operation and structure of the clinic to best meet the needs of patients and the community. It allows influence on the policies, procedures, and ongoing operations to ensure the integrity of the NP-led clinic model is maintained (Heale, 2012).

In terms of patient care, NP-led clinics have the potential to increase access to primary health care and improve patient outcomes. NPs provide safe, effective care and have

demonstrated improved health outcomes and patient satisfaction (Kaasalainen et al., 2010; Sangster-Gormley & Schreiber, 2013). NPs have shown to develop trusting relationships with patients (Sangster-Gormley & Schreiber, 2013) as well as communication approach and attention to the broader social determinants of health (Wong & Farrally, 2013).

It appears that models already exist in BC that mirror the NP-led clinics that exist in Ontario, such as the RICHER clinic. For certain populations of BC, such as vulnerable groups with complex needs, a NP-led model may be promising as NPs have the ability to spend longer durations with these patients to meet their complex health care and social needs. In addition, nurses are known to work within a person-centred framework. This approach focuses explicitly on the individual to meet their health care needs and expectations (Jakimowicz, Stirling, & Duddle, 2015), which has shown to improve patient satisfaction and increase health outcomes (Bentley, Stirling, Robinson, & Minstrell, 2016). NP-led clinics have demonstrated positive patient experiences through strong therapeutic relationships, effective communication, and successful collaboration, all which link to the person-centred framework (Jakimowicz et al., 2015). NP-led clinics may be especially valuable in caring for vulnerable populations through this person-centred approach; it would increase patient choice, support mutual trust and respect, while also providing autonomy, empowerment, and holistic health (Jakimowicz et al., 2015). This is important to consider since experiences with health care providers influences health behavior moving forward, and ultimately health outcomes overall (Jakimowicz et al., 2015).

The NP-led clinic is a unique model and opposes the traditional, dominant, physician-led model of delivering primary health care (DiCenso et al., 2010). Even though the NP-led clinic is a type of team-based model, it does challenge the hierarchical relationship between physicians

and nurses (DiCenso et al., 2010). In addition, it not only challenges it but then further replaces it with another hierarchical relationship by using the term “NP-led”. Although aspects of the NP-led clinics in Ontario bring value to NPs and patients, I do not think the title “NP-led” for these clinics are necessary. Although NP-led clinics have demonstrated many benefits, I think there needs to be a shift in focus from who will be the “leading” profession to what are the patient and community desires, and what type of structure or model will most effectively address their health care needs and improve patient outcomes.

Although NP-led clinics have demonstrated improved patient access to primary health care and patient satisfaction, NP integration into other types of team-based models may have equivalent impact on patient access and satisfaction. BCNPA supports a team-based model that is not provider-specific led, rather it proposes a team-based model that is patient-led. A team-based model for delivering primary health care which successfully utilizes all members of the interprofessional team to meet the needs of patients, improve access, and provide high quality primary health care should be the ultimate goal.

Implications for Further Research

Overall, I think there is further research that is required to inform NP integration and practice in BC. For example, I think a more recent environmental scan of NP practice in BC in terms of geographical distribution and practice settings is critical in determining which primary health care delivery model is most appropriate for further NP integration. The volume of NPs has increased significantly since the NP Integration Research Team conducted their study on NP integration from 2011 to 2013 (Sangster-Gormley et al., 2015). This information would be important in understanding how many NPs are providing primary health care currently and if

they are geographically located in areas within BC that exhibit the facilitating factors, such as a physician shortage and large proportion of unattached patients, to further implement NP-led clinics.

In addition, further evaluation of the current structures in which NPs have been integrated into BC's primary health care needs to be evaluated. Most NPs do not deliver primary care in a conventional setting, rather they provide care to a certain population or patients with a certain disease process. According to Heale (2012), condition- or population-based foci do not impact the number of unattached patients in a community; however, it can be argued that a population-based focus impacts various other social determinants of health. One of the primary objectives for NP integration as stated by the Ministry of Health, is to increase attachment to primary care providers (BC Ministry of Health, 2015), yet the proportion of unattached patients has continued to increase in BC (Statistics Canada, 2015). That being said, I think an evaluation of the current NP-led clinic models in BC would be important to determine what impact they have had on improving patient access through attachment to primary health care providers.

Further research which compares other team-based models to that of NP-led clinics may be of value when determining which model is appropriate. BCNPA supports a team-based model for delivering primary health care; however, it does not suggest that this team-based model be specifically NP-led. Looking at the benefits and challenges to each of the various team-based models within BC's context including the current funding model, physician-nurse practitioner relationship, NP role awareness, and provider availability would be important.

Conclusion

Fundamental to primary health care reform in Canada is enhanced access to care and use of interdisciplinary teams including NPs (DiCenso et al., 2007). NPs have consistently demonstrated safe and effective patient care that is equivalent to that of physicians (Sangster-Gormey et al., 2011; Stanik-Hutt et al., 2013). As the scope of practice for NPs has expanded and the number of NPs has increased within BC, NP-led clinics offer another modality to integrate NPs within the province and improve access to primary health care. In Ontario, NP-led clinics have demonstrated high levels of patient satisfaction, reduction in numbers of unattached patients, and enhanced patient outcomes (DiCenso et al., 2010). Despite the positive impact NP-led clinics have had in Ontario, the NP-led clinic model or similar structures for delivering primary health care have been underutilized in BC.

NPs were introduced into BC to increase access to safe and competent care through interprofessional collaboration and to fill gaps in the current health care system (Sangster-Gormley et al., 2015). Although the NP-led clinic is a team-based model that offers potential benefits and opportunities to improve patient access, barriers exist to further implement NP-led clinics in BC. NP-led clinics may be specifically valuable for vulnerable groups and high risk populations, in which a there is a large proportion of unattached patients who have complex health and social needs. That being said, a team-based model which has horizontal governance and equivalent leadership roles among health care providers, would best support the optimization of each professions' knowledge and skills to improve patient outcomes. A model that is patient-centred, with a focus to increase attachment and promote comprehensive, longitudinal, continuous care would be the ultimate model for BC's future.

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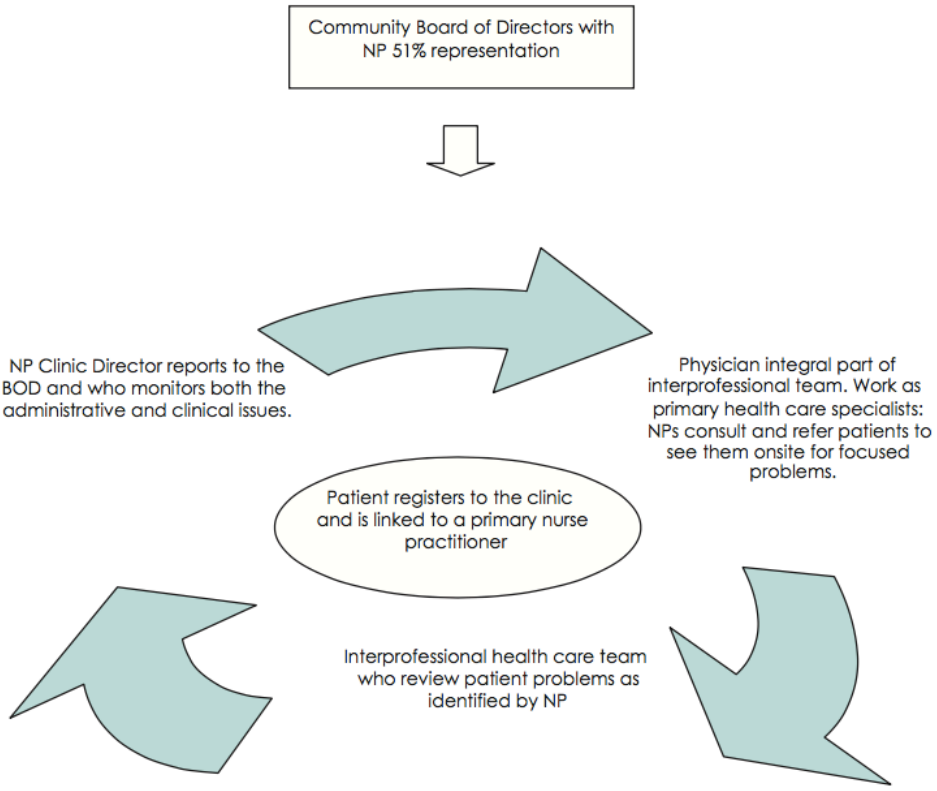
Appendix A

Figure 1. NP-led clinic model



Heale (2012)

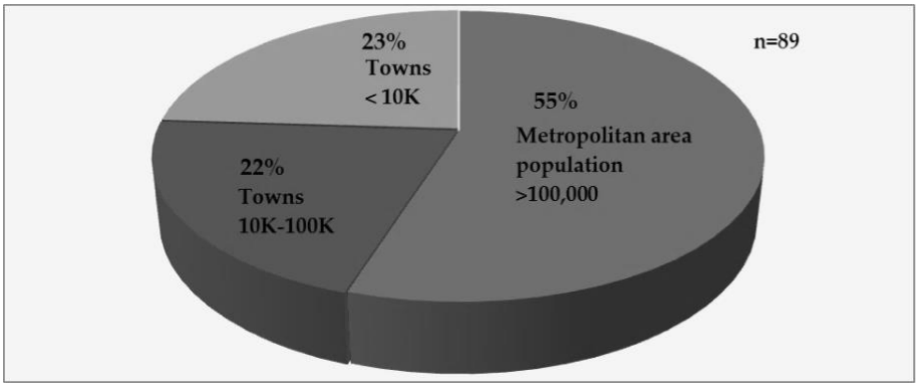
Appendix B

Table 1. Practice Settings

Practice Settings	**2013 n=**	**2011 n=**
Community/Primary Health Care Centre	50	15
Ambulatory Clinic/Outpatient Department	13	9
Physician Office	10	7
Aboriginal Health Centre	10	2
Hospital Inpatient	10	3
Long-term Care Facility/Residential Care	7	5
Emergency Department	5	0
Public Health	5	1
Home Care	3	2
Outpost Nursing Health Centre	3	1
Other	19	8

Sangster-Gormley et al., 2015

Figure 1. Geographic Distribution of NPs in BC



Sangster-Gormley et al., 2015