Nurse Managers and Certified Practice in British Columbia


by

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ABSTRACT

The new Health Professions Act (HPA) is umbrella legislation that represents a change in health policy. Some activities that nurses historically performed under medical delegation like diagnosis and treatment of sexually transmitted infections (STI) are no longer allowed unless additional training and certification occurs. As a result of their role in the system, nurse managers were given the responsibility for implementing certified practice. The purpose of this study was to explore the experience of nurse managers in leading the implementation of certified practice in order to gain some understanding of the process of change management in our health care system.

I chose complexity theory as a lens to understand change in the healthcare system because it emphasizes connection and inter-relationship. I undertook an interpretative descriptive study to analyze the events and contextual factors that have impacted the nurse manager's experience of implementing certified practice. I conducted nine semi-structured interviews in one-on-on and group formats with a total of sixteen nurse managers.

Thematic analysis of the data revealed two overarching and inter-related themes, namely (a) consistency with nursing values; and (b) structural constraints. The first theme comprised three sub-categories: autonomy, recognition and role clarity. The second theme, structural constraints, had three sub-categories: multiple models of practice; training and education barriers; and competing system changes. Certified nursing practice is consistent with the goals of the nursing profession of being a regulated and recognized

profession; however multiple and competing challenges constrained attainment of these benefits.

This study aligned with the existing research on change management in the healthcare system in that it identified what is required for successful implementation of a new health policy. The barriers that were identified also aligned with the literature. The theme of multiple models of practice has not previously been reported. This research highlights the difficulties of a complex system that is comprised of different parts that may operate independently when in truth they are highly inter-related. When this is not taken into consideration, miscommunication and competing system demands can interfere in the implementation of new health policy such as STI certified practice.

PREFACE

I was involved in all aspects of this research.  I was completely responsible for the preparation of all necessary materials, the conduct of all interviews, the performance of all analyses of the research data, and the preparation of all drafts of the manuscript.  A research assistant was hired to provide me with transcriptions of the interview audiotapes. My supervisory committee assisted me with the identification and design of the research program and provided many helpful comments as I revised the thesis.  This research received prior approval from the University of British Columbia Behavioural Research Ethics Board (BREB Certificate of Approval: H09-03315).

TABLE OF CONTENTS

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DEDICATION

I dedicate this work to Bob Rosen, a teacher and activist whose passion and principles I hold as a measuring stick against my own. When he was still with us he always had an ear or time that I could share with him. I know he will be happy I am finally finished. I love him and miss him.

CHAPTER ONE: INTRODUCTION

Changes in the Canadian federal and provincial health care systems are not new (Bergen, 2005; Cummings & McLennan, 2005; McIntyre & McDonald, 2010; Pangman & Pangman, 2010). Prior to 1990, and continuing to the present, there have been significant modifications to health policy and structure at both the federal and provincial levels (Feldberg & Vipod, 2006; McIntyre & McDonald, 2010; Pangman & Pangman, 2010). The British Columbia **(**BC) health care system is again being restructured and these changes are affecting registered nurses (RNs) and the healthcare that they provide (CRNBC, 2009; McIntyre & McDonald, 2010; Underwood, 2009).

Amid the changes to the provincial health care system are changes for nurses at the practice level. The new Health Professions Act (HPA) is umbrella legislation that represents a change in health policy (Bryant, 2009; McIntyre & MacDonald, 2010; Wearing & Nickerson, 2010). The HPA defines regular scope of nursing practice. In the process of delineating a nurse's scope of practice some activities that nurses historically performed under medical delegation like diagnosis and treatment of sexually transmitted infections (STI) are no longer allowed unless additional training and certification occurs. The only exception to this can occur if the College of Physicians and Surgeons of British Columbia  (CPSBC) and the College of Registered Nursing of British Columbia (CRNBC) communicate and agree on specific conditions in which delegation can happen, for example the diagnosis and treatment of epididymitis (Wearing & Nickerson, 2010). The diagnosis and treatment of sexually transmitted illnesses (STI's) is one area of practice affected by this change.

Public health nursing in Canada and in BC has a long history of providing care to people who are experiencing or are at risk for STI's including HIV through many different practice models (Wearing & Nickerson, 2010).[1] In health care centers, clinics, in multi-disciplinary teams, and in remote nursing stations nurses provided counseling, assessment, specimen collection, veni-puncture, diagnosis and treatment. With the advent of the HPA the diagnosis and treatment of STIs are no longer allowed under medical delegation. Now, additional training and certification are required to carry out these functions.

STI rates in Canada have been on the increase since 1997 (BCCDC, 2009; Deering, et al., 2010). Presently the ones of greatest concern are chlamydia, gonorrhea, and syphilis in youth, women and men who have sex with men (BCCDC 2009; PHAC 2002; Deering et al., 2010; Shoveller et al., 2009). Additionally, some studies have shown that rates of STI's in Northern communities in particular are on the rise (Deering, et al., 2010; Shoveller, 2009).

The greatest burden of these infections is borne by populations who experience poverty, addiction and racism (BCCDC, 2009; Bungay, 2010). Their consequences include problems with reproductive health, PID, epididymitis, HPV related cancer, HIV and AIDS, and the effects of stigmatization and discrimination. The populations that carry the burden of STI's frequently do not access mainstream healthcare because of the experience of stigma and discrimination. This lack of access leads to increased costs to

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[1] For the purpose of this research, the emphasis when referring to sexually transmitted infections is within the context of certified nursing practice. Because sexual transmission is the leading mode of HIV transmission, I have noted that HIV may also be considered an STI. That being said, I also recognize there are issues unique to HIV testing and treatment that extend beyond the scope of a discussion concerned with certified practice.

the health care system when infections are untreated and allowed to worsen (Deering et al., 2010).  Public health nurses are an essential component in providing sexual health services in BC (Bungay, 2010). The new public policy change to the scope of nursing practice in relation to STI care could have a major impact on how STI services are delivered and how vulnerable populations access them.

Nurse managers collaborate with internal and external stakeholders to develop and initiate policies and programs that ensure prevention and health promotion programming, monitor for best practice and participate in quality assurance initiatives. Nurse managers provide leadership in the planning, implementation and evaluation of public health nursing programs. They develop the policies, procedures and standards related to the delivery of communicable disease prevention and control services. Additionally nurse managers provide the means for education, training and practice support for frontline nurses.

As a result of their role in the system, nurse managers were given the responsibility for implementing certified practice. The nurse managers had to decide on whether or not certified practice would fit into the delivery models that existed in each service delivery area. They would then have to plan, implement and evaluate the implementation of certified practice for nurses delivering STI service in that practice delivery model.

The research regarding nursing management and change highlights that nurse managers can be extremely effective in implementing change within the healthcare system (Bergen, 2005; Cummings & McLennan, 2005; Ganann, et al., 2010; Guillemine,

1990; Kane-Urrabazo, 2006; McIntyre & McDonald, 2010; Pangman & Pangman, 2010; Ploeg et al., 2007;Wilson, 2009). The role and position of the nurse managers puts them at the forefront of networking, partnering and gives them the ability to collaborate. When the change aligns with the nurse manager's values they are often able to articulate clearly a vision for the change. The latter is required for effective change to be implemented (Bergen, 2005; Cummings & McLennan, 2005; Ploeg et al., 2007). Themes that emerge regarding the management and implementation of healthcare change include the importance of shared goals, trust, empowerment, communication and resources (Paterson, et. al., 2009; Macphee, 2007; Wright, 2010).

My research project examined the involvement of nurse leaders who are experiencing a specific change in health care professional regulations and the relationship between the nurse's role, contextual factors and outcomes of the change. It is important to understand the nurse manager's experience in implementing this health policy change in order to plan and concentrate on strategies that are effective and sustainable. Organizational change research has primarily been carried out within acute care settings (Burke, 2003; Ganann, et al., 2010; Ploeg et al., 2007). Only a few studies look at community health nursing and the contextual factors that challenge or support health care change. This research will build on existing studies with the focus on community health nurse managers and one policy change in public health.

*Purpose*

Nurse managers have the responsibility to coordinate sexual health nursing practice and ensure that standards of care and ethical practice are maintained through

continued education and professional development (CRNBC, 2009). The primary

purpose of this study was to explore how certified practice legislation might affect the

coordination and administration of sexual health services by public health nurse leaders.

Understanding the process and experiences of nurse managers will support future

research that seeks to reveal what constitutes effective and sustainable change in the

health care system. The study focuses on how nurse leaders make decisions and interact

with organizational and system structures. The major research question was: What are the

experiences of nurse managers in BC in implementing the change in health policy of

certified practice?

*A Note on Terminology*

Terms that are used in this research are derived from the research articles in the

literature review and are part of the discourse regarding regulation and health care.

'Under delegated medical function' refers to activities that nurses would perform that are

considered generally to be outside of nursing's regular scope of practice. The delegation

would occur between a physician and a nurse. The nurse would be guided by either

written standing orders or orders given after the activity had been done or with verbal

direction from the physician (Wearing & Nickerson, 2010). Often written protocol or

indirect orders were developed for nursing for standard procedures to expedite delegation

Certified practice refers to additional training and education that nurses receive

for reproductive and STI care, remote nursing and RN first call (CRNBC, 2012). The

term 'certified practice' in this research is only with regard to reproductive and STI care.

The term 'practice model' refers to the different service structures that exist in healthcare

delivery.

*Organization of Thesis*

This chapter provides the background to the changes in public health policy that may affect nursing practice and ultimately sexual health services to the public. In the second chapter I provide a review of the literature that exists concerning nurse managers, public health nursing and change management. In order to better understand the context of the nurse manager's role I describe the role of the nurse manager in public health nursing and their role in change management. I then review what public health policy is and the history of regulation and certified practice. I include the role of the public health nurse and STI practice and the rates of STI in BC.

In the third chapter I describe my theoretical perspective and the methodology that I used in this research. The theoretical perspective that I used is complexity theory. I have chosen complexity theory because it highlights the intricacies of highly complex adaptive systems such as the health care system and focuses on the interrelationship of the different elements. It is a framework that directs the emphasis of the analysis on the practice environments and the larger health care system instead of on the individual professionals (Miller, 1998; Penprase & Norris, 2005; Sobo, et al., 2008; Wilson, 2009). Research on organizational change that draws on complexity theory offers insights into the implementation of change and offers strategies within larger complex systems (McDaniel & Walls, 1997; Penprase & Norris, 2005; Rickels et al., 2007; Wilson, 2009).

I chose the qualitative method of an interpretive descriptive study in which to do my research. An interpretive descriptive study supports interviews as a means in which to collect data. Interviews were chosen because they provide an effective and pragmatic opportunity for the nurse managers to express the events and contextual factors that

surrounded the implementing of certified practice. This chapter will then go on to describe my sample, data collection, data analysis, scientific quality and ethical considerations for the study.

In chapter four I present the findings of the interviews and the inter-connected themes that emerged. In the final chapter I discuss the findings in relation to the literature review. I analyze the gaps and suggest recommendations.

CHAPTER TWO: REVIEW OF THE LITERATURE

A literature review is important because it helps to place the new data found in this research within the context of existing knowledge. In this review, I begin with a description of the role of the public health nurse manager in health care change management. An understanding of the current research on this role provides the context for the nurse managers that were interviewed for this research. Next, I review the literature on public health policy and regulation of the nursing profession. This provides the background to the implementation of certified practice. It is important to include literature on the role of public health nursing in STI practice, and STI/HIV in BC, because this is relevant to the health care system changes that were experienced by the nurse managers in this research. I will conclude with a summary of the literature and note any gaps that may exist.

*The Role of Nurse Managers in Public Health and Change Management*

Until recently, the community and public health care systems have received less priority then the acute care sector (Bryant, 2009; McIntyre & McDonald, 2010) primarily due to the pressure on resources placed by acute care. However, that changed somewhat in the post-SARS era with the advent of the new Public Health Agency of Canada in 2003. In addition, health care systems in Canada have recently begun to place increasing emphasis on primary health care initiatives (PHI) (Bryant, 2009; McIntyre & McDonald, 2010; Villeneuve & MacDonald, 2006). Now as the health care system progresses to a more multidisciplinary community-based primary care delivery model, nurse managers are in a pivotal place to strengthen partnerships and to advocate for

health promotion and prevention programming initiatives. This critical role has been confirmed in a number of studies (Ganann et al., 2010; Meagher-Stewart et al., 2010; Underwood, 2011).

The role of public health nurse managers involves co-ordination and administration of public health programs. The nurse manager is focused on planning, developing, and managing nursing programs and services that include population health, health promotion, community development, communicable illness prevention and control, immunization programs, health education, harm reduction and disaster and outbreak planning (Community Health Nurses of Canada, 2009). They are responsible for creating and implementing policies and procedures, and setting standard guidelines within practice settings (McIntyre & McDonald, 2010).

However, there is a paucity of research that examines the role of nurse leaders who are implementing health policy change and the relationship between the nurse manager's role, contextual factors and outcomes of the change. Only three studies could be identified that specifically consider the nurse manager in the implementation of new policy within health care practice. Bergen & While (2005) collected data and performed a secondary analysis from a primary research project on community nurse case managers. The purpose of their research was to explore the complex relationship between health policy, characterized by generality, and nursing practice, characterized by the unpredictability of response. These authors combined two theories, implementation theory and street-level bureaucracy, to shape a framework from which to examine government policies that were to be translated into community health nursing practice. They used a multi-stage methodology through telephone and questionnaire surveys with

purposeful sampling and longitudinal follow-up. The author identified four inter-related factors that influenced implementation: "namely, (1) the clarity of the policy guidance; (2) the extent to which it coincided with professional (nursing) values; (3) local practices and policies; and (4) the personal vision of the community nurse" (p.1). These research results align with studies on health care reorganization that have identified the need for a confluence of the nurse's vision and values (Borbasi & Gaston, 2002; Shaney, 2007). It should be noted that Bergen performed her study within the U.K. medical system and she focused on frontline nurses, not nurse managers.

A second study by Cummings and colleagues (2003) in Alberta investigated the implementation of advanced nurse practitioner roles in one acute care setting. The researchers used a modified case study method involving a purposeful sample of informants who had been involved with the implementation. The findings suggested that effective change requires use of a change model, clarity around role definition and vision, resource support and a champion. These findings are consistent with previous reports involving change management (Ganann et al., 2010; Meagher-Stewart, et al., 2010; Underwood, 2011).

A third study by Ploeg and colleagues (2007) "*Factors influencing best-practice guideline implementation: lessons learned from administrators, nursing staff, and project leaders*", studied factors that influenced the implementation of nursing best practice guidelines. The study was conducted in Ontario and involved twenty-two different organizations. The data were collected through a thematic analysis of qualitative audio-taped semi-structured interviews. The study identified both factors that facilitated the implementation and those that were barriers. The facilitators were: learning through

group interaction; positive attitudes and beliefs; leadership support; champions; teamwork and collaboration; professional association support; inter-organizational collaboration and networks. The barriers that were identified included: negative staff attitudes and beliefs; limited integration of guideline recommendations into organizational structures and processes; time and resource constraints; and organizational and system level changes. The authors acknowledged study limitations that included their inability to interview a wider variety of health care providers (they had interviewed fifty-nine administrators, fifty-eight staff and eight project leads). They also noted their inability to capture experiences from more diverse situations including community settings where there is responsibility for a large geographical health service delivery area.

While the above three studies are those that focus on the nurse manager role in implementing policy change, there is evidence in the change management literature to suggest that when changes are implemented in nursing, they are most successful when managed by nurse leaders (Guillemine, 1990; Kane-Urrabazo, 2006). This success comes from the nurse manager's position in the network of healthcare stakeholders and their ability to be the conduit for communication and collaboration. The elements that have been identified as critical success factors are: having a clear vision; promoting public health nursing; supporting autonomous practice; dedication to professional development; effective human resource planning; commitment to community development and partnerships; effective communication and healthy workplace policies (Ganann et al., 2010; Meagher-Stewart et al., 2010; Underwood, 2011).

Effective change is implemented when nurse managers are able to incorporate these elements. However, there are other factors that influence the nurse manager's

capacity to fully actualize them. How much power and support are given to nurse managers to successfully implement a change is integral for leadership (Shaney, 2007). Also, in order for nurse mangers to have an impact they need a vision and understanding of the process, desired outcomes and resources, including financial resources (Borbasi & Gaston, 2002). In addition, nurse managers require viable workplace networks in order to build on existing capacities that already exist for change to be successfully managed (Macphee, 2007). There is a gap in the literature concerning whether or not the nurse managers in BC experience the factors of power, support, and clear vision in relation to implementing a public policy of certified practice.

In the specific context of public health, the literature calls upon nurse managers to act as political advocates to influence public health policy, address social inequities and enact changes that do occur (Burke, 2003; Pangman & Pangman, 2010). Nurse managers, as agents of change and advocates for social equity, have the potential to be the most influential in areas related to public health policy (McIntyre & McDonald, 2010). The implementation of certified practice for STI service is an example of a health policy change. There is a gap in the literature describing the nurse manager's involvement in this public policy change in BC.

*Public Health Policy*

Public policy is a value-based approach that influences how governments, organizations, agencies and associations determine priorities to attain desired goals (Bryant, 2009).  Health policy is a subset of public policy and both are political (Bryant, 2009; McIntyre & McDonald, 2010; Raphael, et al., 2006). The making of health policy is complex and can include public servants, professionals, media reports, interest groups,

academics and policy consultants (Bryant, 2009; McIntyre & McDonald, 2010). When analyzing and implementing policy an important question for nurse managers is who benefits from policy changes (Bryant, 2009; McIntyre & McDonald, 2010; Pangman & Pangman, 2010; Raphael et al., 2006). In the implementation of certified practice, the nurse managers are actively engaged in deciding how to provide accessible STI services. This is important because it is people marginalized by social and structural inequity, (e.g., those who experience poverty, addiction, and racism), who carry an extra burden of STI illness and would be disproportionately affected by any decrease in access to services.

*Regulation of Nursing Practice*

Regulation of professions is a health policy that the government uses to protect the public (Bryant, 2008; McIntyre & McDonald, 2010). Regulation allows for the protection of the public and sets the framework for the recognition of a profession (Alderidge, 2008; McIntyre & McDonald, 2010). The authority to self-regulate and have control over education and training is legislated at the provincial and territorial level of government

Since 1908 there has been a struggle in Canada to have nurses recognized and regulated as a profession (McIntyre & McDonald, 2010). BC's nursing regulatory organization is the College of Registered Nurses of British Columbia (CRNBC). With regulation the government becomes involved in a continuous administrative process that includes evaluation. The government then grants authority to the CRNBC for self-regulation (Wearing & Nickerson, 2010).

The goal of the CRNBC is to define the profession and its members, define scope of practice, set standards for education and training and establish systems for accountability and credentials. Certification aligns with regulatory goals to control education, scope of practice, and who can practice (McIntyre & McDonald, 2010; Wearing & Nickerson, 2010).

A profession is recognized as autonomous when it is able to self-govern its own specialized body of knowledge and set standards and limits on conditions of its own practice. It is through autonomy that the nursing profession can realize control over its body of specialized knowledge and exercise self-regulation, in order to advance the profession and uphold public health and safety (Pangman & Pangman, 2010).

Having recognition and self-regulation is a privilege for a profession and requires input from government and the public (McIntyre & McDonald, 2010). Recognition allows for role definition with other health care professionals and secures a certain status for nurses. When role definition and status are recognized, a warranted valuing of the nursing profession follows.

*Certified Practice*

To investigate the nurse manager's experience in implementing certified practice in this study, it is helpful to understand the history of certified practice for nurses in BC. Prior to 1990, and continuing to the present, there have been significant modifications to health policy and structure at both the federal and provincial levels (Bryant, 2009; Feldberg & Vipod, 2006; McIntyre & McDonald, 2010; Villeneuve & MacDonald, 2006). Regulating the health professions has long been an interest for governments. It is an

attempt to recognize the power imbalance between lay people and health care professionals and subsequently to protect the public (Alderidge, 2008; McIyntre & McDonald, 2010; Pangman & Pangman, 2010; Wearing & Nickerson, 2010). The first attempts by government to legislate professional self-governance created separate legislated scope of practice for each profession. This created 'turf' wars among health professional groups whose practices overlapped (Alderidge, 2008). In 1991, in order to address these issues, the government of British Columbia introduced an "umbrella legislation" that other provinces had been instituting. This umbrella legislation was called the Health Profession's Act (HPA) (Alderidge, 2008; McIntyre & McDonald, 2010; Pangman & Pangman, 2010; Wearing &Nickerson, 2010). The aim of the HPA was to provide uniform standards, so that the act did not value one profession over the other. The government's goals for the HPA were to improve protection for the public and at the same time employ initiatives that would be cost effective (BCIT, 2010; Ministry of Health Services, 2011). There is a gap in the literature regarding evaluation of this process.

The Health Professions Council (HPC) was the group who represented the government during this process of enacting the HPA. The HPC informed the formation of the HPA and legislated the registered nurse's scope of practice that is regulated by the College of Registered Nurses in British Columbia (CRNBC, 2009). In the report written by the HPC called *Safe Choices: A New Model for Regulating Health Professions in BC* in 2001, it was found that nurses were performing some activities outside of their regular scope of practice as described by the College of Registered Nurses of British Columbia (CRNBC). Instead, they were undertaking some activities under delegated medical

function (Alderidge, 2008; Wearing & Nickerson, 2010). Delegated medical function is an agreement between the physician and the nurse. Under this agreement a nurse who is deemed capable and has express permission from the physician, can perform an activity that would normally be considered a physician's activity. There was concern that accountability and responsibility under such an arrangement was unclear (Wearing & Nickerson, 2010). It was then that the government through the HPC, required that some duties and practices in which nurses were historically involved outside of their scope of practice, had to be stopped.

The HPA outlines the parameters of the scope of practice. As stated by Pangman & Pangman, (2010), "The Health professions Act provides new definitions, requirements, and expectations for the professional scope of practice, registration, continuing competence, and the disciplinary process" (p 202). It has been noted in the nursing literature that competency statements and standards need to be flexible and a mechanism is required whereby the regulations and legislation can change in order to reflect an evolving scope of practice (McIntyre & McDonald, 2010; Pangman & Pangman, 2010). There have also been concerns that this movement towards certification fails to recognize the somewhat different (or expanded) practice of the rural generalist nurse (McIntyre & McDonald, 2010).

The CRNBC now puts limits and conditions on these formerly delegated activities, known as 'reserve activities.' Nurses with extra training could become certified and with the added support of Decision Support Tools (DST's) could continue their practice. DST's are algorithms for the diagnosis and treatment of selected conditions (Wearing & Nickerson, 2010; Swalwell-Franks, et al., 2007). This activity by nurses is

known as certified practice. Certification can be obtained in four areas, namely rural nursing practice; RN First Call; contraceptive management, and sexually transmitted infections.

With respect to STI care, nurses were previously providing STI diagnosis and treatment under delegated medical function (Wearing & Nickerson 2010). Now, through an approval process with the Ministry of Health and CRNBC, the BC Centre for Disease Control (BCCDC) and the BC Institute of Technology (BCIT) were both designated to train and certify nurses who provide STI care and services (Wearing & Nickerson 2010). There is a gap in the literature regarding evaluation of the quality and provision of sexual health service in relation to the new policy

*Public Health Nursing and Sexual Health Nursing Practice in British Columbia*

As discussed above, currently the Health Professions Act (HPA) legislates the registered nurse's scope of practice in relation to the diagnostics and treatment for STIs. A registered nurse's regular scope of practice includes venipuncture, swabs for culture and sensitivity, administering meds, counseling, referral, partner notification, and advocacy. Registered nurses now require additional education, training and certification before they can provide independent testing, diagnosis and treatment of STIs. This change affects provincial public health nurses, nurse managers in health authorities and ultimately the public. The new legislation has the potential to create an immediate gap in access to sexual health care until nurses, who were previously delivering STI/HIV reproductive health care, can become certified. It is the responsibility of nurse managers to uphold standards and ensure that nurses are certified prior to providing these services.

*STI/HIV in BC*

Rates of chlamydia, syphilis and gonorrhea are rising and STIs and HIV continue to be a

significant public health concern (PHAC, 2010). As noted previously, populations that

are most marginalized by social and structural inequity, e.g., those who experience

poverty, addiction, racism, and discrimination, also carry the heaviest burden of STIs and

HIV (Provincial Health Officer, 2007; Raphael, 2006).  STIs can have serious sequellae

including pelvic inflammatory disease (PID), reproductive health complications,

epididymitis, and spread of infection throughout the community (Goldenberg, 2007;

Steenbeek, 2004; Steenbeek et al., 2009). There are significant rates of STIs and HIV

across BC, including both the Vancouver Coastal and Northern Health authorities that

participated in this research.  It is critical that sexual health services are offered to address

this public health concern (BCCDC, 2010). Nurses are primary healthcare providers in

community health and are central to the prevention and management of STIs and HIV.

Once certified, it is within the scope of nursing practice to test, diagnose, counsel, treat,

refer, and follow up with partner notification at the individual, family and community

level (CRNBC, 2008).

*Gaps in the Literature*

There is research that describes the qualities of successful leadership and there is

a plethora of research regarding organizational change. However, there is limited

literature that focuses on the experiences of nurse managers in implementing policy

change, particularly within the realm of public health. As a result there is a gap in

knowledge regarding the factors that support or challenge the effect implementation.

There is an inadequate understanding of public health nurse manager's involvement in

enacting a new policy change into practice. There is also limited knowledge regarding evaluation of the HPA and the quality and provision of sexual health services in relation to the new policy.

*Conclusion*

In the existing literature there is a dearth of studies focused on the role of nurse managers in implementing a new health policy. However, there is nursing literature that describes the role of nurse managers in change management and the reorganization of healthcare. The job description of nurse mangers in community healthcare is to manage programs that deliver health promotion, illness prevention and harm reduction services to the public. Nurse managers are involved in implementing policies and guidelines and are critical in their roles as communicators and collaborators due to their position in the healthcare system. In the change management literature nurses are shown to be instrumental in implementing change in the acute care system and are perfectly positioned to be change agents.

Health policy and nursing practice are intertwined. The literature on health policy describes how it is through public policy that the government attains its goals for the public. The literature also describes the many stakeholders that are involved in the development of policy resulting in a process that is complex.

The nursing literature reports on how, historically, nurses have been interested in self-governance in order to self-regulate and be recognized as a profession. The nursing literature also reports what certified practice is and what the Health Professions Act is.

Research on STI was reported in this study because it adds to the relevance of implementing certified practice.

CHAPTER THREE: RESEARCH DESIGN AND IMPLEMENTATION

In order to address my specific research question I required a research design that could allow me to explore public health nurse managers' experiences of implementing the sexually transmitted infection component for reproductive certified nursing practice in British Columbia. Thus, I chose a qualitative research approach and undertook an interpretive descriptive study informed by select aspects of complexity theory.

In this chapter I first present the facets of complexity theory that informed my work. I then describe my application of an interpretive descriptive approach that includes an overview of an interpretive design, sampling and recruitment, and data collection and analysis. Lastly, I describe the scientific rigor used through out the project and ethical considerations in undertaking this work.

*Theoretical Perspective*

Scope of practice and health care delivery will continue to evolve as the BC government promotes changes to structure and function of health care services (Ministry of Health, 2011). In the past two decades there have been multiple studies and research articles in organizational and health science that use a mathematical model, called complexity theory, to understand health system changes (Begun, 1994; McDaniel & Walls, 1997; Miller, 1998; Paley & Eva, 2011; Rickles et al., 2007; Wilson, 2009). My interpretations are informed and guided by the theoretical perspective of complexity theory.

Historically organizational and systems change have been viewed through a Newtonian reductionist lens that has proven unsatisfactory as a predictor for analyzing

health care system change (Miller, 1998; Paley & Eva, 2011; Wilson, 2009). In the past, organizational and health science met with challenges because they used logical linear cause and effect models to understand a healthcare system that is not a linear (Miller, 1998; Wilson, 2009). Complexity theory provides a model that alters how scientists and academics study non-linear systems. It has given rise to new understandings and strategies for change within Complex Adaptive Systems (CAS).

Complexity theory views the healthcare system as a complex adaptive system (CAS) (Miller, 1998; Penprase & Norris, 2005; Sobo, et al., 2008; Wilson, 2009). Complex systems are composites made up of connected entities that change and evolve. The emphasis is on the inter-relationships of the entities and the context in which they exist (Clancy et. al., 2008; Miller, 1998; Wilson, 2009). Complexity theory can be used to understand why large changes, such as new practice guidelines can have small effects or results. Miller (1998) offers an accessible language to describe complexity theory and the health care system. Miller (1989) recognizes the health care system as a CAS within which there are "internal models". Miller's (1989) examples of internal models include nursing policies, stability of staff, workload and ritualized routines. These internal models are processes in which frontline nurses and nurse managers as 'agents', are involved in seeking information and feedback as internal models or processes evolve to reach goals called 'attractors. There is debate in the literature on how to define 'attractors'. (Begun, 1994; Miller, 1998; Paley & Eva, 2011; Penprase & Norris, 2005; Wilson, 2009). According to Miller, 'attractors' are the motivators of health service and the routines or the values that exist in the organization or system (Miller, 1998). 'Attractors' are essential in the process of change.

Complexity theory focuses attention on the interrelationship of the players within a system as well as the interrelationship between systems (Sobo, 2008). The health care system and the professionals who work in it are not always predictable, completely independent or constant. The assumption that the health care system is made up of constant and predictable independent parts has resulted in ineffective plans and programs (Wilson, 2009). A complexity theory perspective highlights that there can be much chaos in highly structured systems and that straight cause and effect analysis can miss other important influencing factors. It seeks to answer questions on how these interrelationships interact in complex ways and how they affect the outcomes of change (Greenhalgh, et al., 2010). It offers an explanation for how complex systems adapt to constantly changing environments (Penrose & Norris, 2005; Greenhalgh, et al., 2010). The questions that complexity theory generate focus on whether or not there is underlying order or if there is a pattern, and what is influencing what (Patton, 2002; Penprase & Norris, 2005; Plsek and Greenhalgh, 2001). This focus guided me when analyzing the contextual factors that arose in the interview data.

The literature cautions against the oversimplified use of complexity theory to describe and analyze changes in health care. The reader is reminded that complexity theory comes from an abstract mathematical model that assumes that integral parts are detached and unintentional, whereas human beings are intentional and are attached by their relationships (Begun, 1994; Paley & Eva, 2011; Rickles et al., 2007). In popularized notions of complexity theory, the definition 'attractor' for use in the CAS of health care is a 'held value' or a preferred outcome. This is very different from its meaning in the mathematical model from which it evolved.  The criticism claims that healthcare

researchers are prematurely or inaccurately using the complexity theory, assigning inaccurate metaphors and conclusions (Paley & Eva, 2011; Paley, 2010). Paley & Eva, (2011) warn that it is difficult to apply complexity theory which is derived from a mathematical model that contains relationships that are unintentional to social systems where humans will often act with intention (Plsek and Greenhalgh, 2001). For this research I am not creating or adding new dimensions to complexity theory. I am viewing the large governmental systems of the Ministry of Health, the CRNBC, and the Regional Health Services Delivery Areas as complex systems that are endeavoring to produce intentional outcomes. Despite these criticisms there is some consensus that complexity theory is appropriate for understanding the multi-layered and complex healthcare system (McDaniel & Walls, 1997; Miller, 1998; Penprase & Norris, 2005; Rickels et al., 2007; Wilson, 2009).

I chose complexity theory as a lens to understand change in the healthcare system because it emphasizes connection and inter-relationship. It readily reflects the unpredictability of working in a dynamic complex health care system that is constantly experiencing change. The suggested strategies align with the roles of nurse managers as agents of change. In the health care system nurse managers are a connection point between the Ministry of Health, nurse practice leads, regulatory bodies and practicing nurses. Complexity theory shows limitations of the 'command and control' approach and supports nurse managers to focus on communication, education, and autonomous practice (Wilson, 2009).

Complexity theory offered me a framework to explore how change unfolded in the complex adaptive system of the public healthcare system. Policy is designed with the

expectation that a linear process will unfold as it is disseminated and implemented but in actuality it is dynamic and involves many stakeholders; thus it is a multi-faceted and complex process (Bryant, 2009; McIntyre & McDonald, 2010).

The government in its role of ensuring public safety and quality assurance expects the licensing body the College of Registered Nurses of British Columbia (CRNBC) to regulate and standardize the delivery of diagnosis and treatment of STI's (Aldridge, 2008; Wearing & Nickerson, 2010). The process of regulating and standardization is a process that assumes 'A' will give rise to' B'; a linear assumption that does not take into account the complexities of the public health care system, with the intricacies of the combinations of knowledge, skills, and attitudes that are being operationalized in multi-faceted practice environments. Complexity theory focuses on the inter-connection of multiple elements within a system to better understand the change that occurs. Complexity theory perspective guided this research to examine the experiences of nurse mangers as situated within a larger public health care system and supported me to understand the organizational structures within the STI and HIV public health services and programs and the interrelated factors that influence the implementation of programmatic change.

*Research Approach*

In this research I employed a qualitative approach to explore the experiences of nurse managers involved in the process of implementing a system-wide change. The qualitative approach that I undertook was an interpretative descriptive study to analyze the events and contextual factors that have impacted the nurse manager's experience of implementing certified practice (Charmaz, 2004).

Interpretative description is recognized as a good fit for nursing research and inquiry (Thorne, et al., 1997; Thorne, et al., 2004). It is an approach that supports an interactive process that allows for the data and the use of the participants' own words to be central to a full and complete description of the phenomenon (Sandelowski, 2000; Thorne et al., 2004).

Interpretative description is a non-categorical qualitative approach in that it supports interviewing as an effective and pragmatic method for data collection (Calelli, et al., 2003; Thorne, et al., 2004). It is an approach that allows nurses to describe phenomena that reside in an existing process and can add to a larger discourse (Thorne et al., 2004). Nursing research questions often arise from practice (Calelli et al., 2003; Thorne et al., 1997; Thorne et al., 2004). My research question came directly from my practice in STI/HIV health care. As a nurse educator I provide practice support for nurses who provide STI/HIV care in British Columbia (BC). I realized that it may be difficult for nurse managers in the province to implement the new requirement to certify all the province's nurses and wondered how this would impact the sexual health services in BC. Interpretive description is a method that calls for the results to have application potential (Thorne et al., 2004). My hope is that this research contributes to further insights that will inform the implementation process that nurse managers are responsible for regarding certification for reproductive sexual health practice. The nurse managers who were interviewed for this study shared this hope and requested the results of this study as soon as it was completed.

Interpretative description recognizes that human meaning and experience are subjective, constructed and contextual (Aranda & Street, 2000; Thorne, et al., 2004).

One-on-one interviews and group interviews provided data that allowed for the examination of patterns and characteristics that arise from this subjective experience. Thorne et al., (2004) state that this type of investigation lends its self to "the smaller scale qualitative investigation" (p.5). I knew at the beginning of this research due to practical factors such as time and money constraints I would be unable to conduct a larger study. However, it is my view that my research topic and question fits well with this methodology and methods.

Interpretative description acknowledges that the role of the investigator is an influencing actor in the study (Calelli et al., 2003; Thorne et al., 1997; Thorne et al., 2004). This acknowledgment supports the inclusion of my interpretation of the findings in the data from the interviews that I conducted.

*Data Collection*

*Sampling and recruitment*

The participants were STI/HIV nurse managers from the Provincial Health Services Authority (PHSA) BC Centre for Disease Control (BCCDC), Vancouver Coastal Health, and Northern Health Authority. The PHSA, Vancouver Coastal Health (VCH) and Northern Health (NH) were chosen because of the vastness of their health service areas (HSA) which provides diversity in the populations served and the types of services that exist. Purposeful sampling guided recruitment and sampling strategies. Purposive sampling is employed when a researcher is studying people, programs, or organizations in which the population of interest is already determined by the research question (Thorne, et al., 2004). In this case I was interested in how nurse managers respond to a larger system change within reproductive and sexual health services. The strength and

reasoning behind purposeful sampling is situated in selecting information rich cases (Charmaz, 2004; Patten, 2002).

The sample consisted of nurse managers who administer and coordinate reproductive and sexual health services in BC because these are the individuals who would be implementing the new policy of certified practice for nurses in providing STI services and could best answer my research questions. I drew on my professional resources and relationships to inform the decision of who to include in the list of participants. Nurse leaders were eligible to participate if they had, as part of their responsibilities, the coordination of STI/HIV public health nursing services. Nurse managers were recruited after ethical approval was granted primarily via the UBC Behavioural Research Ethics Board and the designated research nurse in each health authority.

I spoke to the participants from the BCCDC and e-mailed the information flyer and the project summery to them. The BCCDC participants were included if they had been involved in implementing certified practice for their nurses and in addition trained community health nurse from other health service delivery areas for reproductive and STI certified practice. The names of the participants from VCH were provided by the Operations Director for Vancouver Coastal Health (Vancouver Community). I e-mailed or spoke on the telephone with each participant after the Operations Director had contacted them and obtained permission to do so. All participants had been involved with coordination and management of STI services and implementing reproductive STI certified practice. I telephoned each nurse first and invited them to participate. After the expressed initial interest I e-mailed them the information flyer and the project summery.

NHA had designated a research ethics nurse who put forward the names of the nurse managers who coordinated and managed STI services and were implementing certified practice in the NHA. An information flyer and a summary of the project was provided to each nurse manager via e-mail after the initial phone call.

*Interviews*

I chose interviews as my primary method for data collection. Interviews are recognized as an appropriate form of data collection in order to capture the lived experience in a pragmatic manner (Thorne, et al., 2004). Interviewing groups can provide enhanced quality of data because the group will often self correct for extreme data, in that if some information seems unreliable or impossible the other members of the group will question it. At the same time meaning can arise from the group as understandings and views are formed in the context of others (Patton, 2002). One of the challenges with discussion groups is that some people can be silenced or feel vulnerable. This did not occur in this study because many of the participants have an existing respectful working relationship and are accustomed to meeting together.

 I conducted nine semi-structured interviews (Appendix A); individual (n=5) and group (n=4) formats with a total of N=16 nurse managers. The four group interviews had 2-3 participants in each. Interviews lasted approximately thirty minutes and four were conducted face to face. Five phone interviews were done because time and travel provided a barrier to conducting them in person. Observations were included when the interviews were face-to-face. Each interview group consisted of nurse leaders who have primary responsibility for the coordination of STI (including HIV) programs. I acted as a moderator and guided the discussion with open-ended questions. Observations of group

interactions were included as descriptive data to enhance the quality of the interview group data and helped me to provide a description of the interview. Notes were used to provide a moment of reflection and inform future interviews and allowed the first glimmers of themes (Duggleby, 2005; Morse & Field, 1995). Qualitative studies are designed to understand phenomena from the inside out, instead of studying around the outside of the phenomena or simply describing it (Charmaz, 2004). When researchers take part in and analyze interviews there is a risk that they will influence meaning because of intimacy they can experience with participants. The perception of intimacy can mislead the researcher into prematurely believing that they understand the phenomena being studied (Charmaz, 2004). Charamaz (2004) describes activities that can remedy this situation, which includes being fully present, respectful and involved by using active listening. These activities are analogous to client-centered care and are an integral aspect of my experience.

Each interview began with a review of the purpose of the research, strategies to support confidentiality, and mutually agreed upon interaction guidelines. All interviews were recorded and transcribed verbatim. I then checked the transcriptions for accuracy. In order to maintain anonymity participants are not identified by name or work location but they are identified by rural or urban work location where appropriate and have been assigned a code.

*Data analysis*

My analysis was iterative. I started analysis during the interview, immediately after the interview and when collating the data from the transcripts (Patton, 2002). Charamaz (2004) states that becoming embedded in the data after the interviews is

essential in the examination of the data. Analysis occurred as the data was being collected in order to ensure that the identified meanings came from the participants and not the assumptions or understandings of the researcher (Charmaz; Patton, 2002). I read through the data in an organized and objective way with complexity theory as a perspective to guide and to locate meaning, context and themes (Elo & Kyngas, 2007).

The meanings and context come from being immersed in the data and paying attention to who is talking, what questions are asked and how the questions are being answered. The transcripts were read many times over to get a sense of the data as a whole. Patterns and themes were categorized and coded with particular attention paid to barriers and supports for certified practice implementation (Elo & Kygas, 2007; Patton, 2002). Duggleby (2005), states that research which contains data from interview groups, should use the same methodological approach on all three levels of data collection, namely individual, group and group interaction. I used interpretative description for individual interviews and group interviews. During and after the interviews I checked with the participants to determine if the meaning was accurate.

Coding and memoing of the transcribed discussion were used. Each transcription was first read in its entirety and then reread line by line. Emerson et al. (1995) direct the researcher to use a two-part method where, in the first part, the researcher uses open coding and in the second focused coding. During open coding I proceeded line by line without regard for how the categories intersected. Themes started to emerge from the codes, particularly 'what nurses value" and 'structural constraints". Focused coding occurred after the themes appeared. Complexity theory directed me to pay attention to the multiple contextual factors and how they inter-connected. For example, it became clear

that the nurse mangers were central to responding to multi-system changes that directly affected the frontline nurses practice. The focus was on the process of what was occurring in the interview, in what order topics were discussed and what the participants saw as important (Emerson et al., 1995).

*Scientific quality*

Data were collected from observation and taped interviews. Interviews were highly focused for efficient use of time. Immediately after each interview, I completed notes about what had occurred during the interview and noted an identifier for each participant to ensure rigor and validity (Patton, 2002). The immediate identifier was important so that I would not forget who said what as other people were interviewed and time passed between interviews. Researchers that use qualitative inquiry acknowledge that while research strives to unearth the 'truth' the 'truth' is never fully obtained (Patton, 2002). In my research I am not unearthing a new truth but offering a "tentative truth claim" (Thorne et al., 2004) as the findings are representative of the participants' experiences and not a final truth. When using interview data the responsibility of scientific quality is placed on the researcher (Patton, 2002). The data that were collected was solely the participants' words. I checked meaning with the participants by summarizing and asking if I understood the meaning accurately during the interviews for credibility (Sandelowski, 1986). The quality of the data obtained is influenced by the researcher's skills and knowledge of how to moderate a focus group (Patton, 2002). The quality is further ensured by constant reflexivity combined with using my experience as a nurse educator and my past experience facilitating groups. Sumner (2010) describes the concept "triple hermeneutics" which addresses scientific quality. This is a strategy that

involves reflexivity. Firstly, I was conscious and reflective of my own position and assumptions. Because of my position as a BCCDC nurse educator I had observed the implementation of certified practice at the BCCDC. I witnessed both the process inside the BCCDC and had had discussions with a few frontline nurses and nurse managers outside the BCCDC that gave rise to assumptions on my part that implementation of certified practice for nurses had not been a smooth process. Secondly, I was aware that it is my interpretation of this reality; and thirdly I consciously used a critical interpretation to examine the narration as it unfolded for embedded assumptions. Representation of the data was addressed by making my own values, preconceptions and biases explicit during note taking in the interview groups and in the analysis. Discussion and feedback from my thesis supervisor also provided insight into bias. I was committed to detail and accuracy. I conducted the interviews in a nonjudgmental and respectful way by providing time for people to speak and using reflection and summarizing as ways of checking in with respondents. In addition, my research committee guided and informed this process. Two committee members have relevant academic experience and one member manages STI services in an Aboriginal community and is respected by many community health nurses working in the area of STI health care with marginalized populations.

My interest was to elucidate the perspectives of the nurse managers and to identify what they see as significant in their decision-making in the context of system wide changes. Throughout each interview I summarized what was being said and checked back with the participants to review my interpretations and check for validity.

*Ethical Considerations*

In order to obtain informed consent, each participant was provided with a detailed letter inviting them to participate that outlined the purpose of the study, the expectations in their participation, and what would happen to the data once they had participated (Appendix D). Before beginning the interview, I explained the purpose and intent of the research. The participants were invited to read the invitation to participate and that time was provided for explanation and to answer any questions. I also shared with participants that their participation was entirely voluntary and that they could refuse to participate or to answer any questions throughout the process. I reassured the participants that there are no negative consequences if they wanted to withdraw from the study. Their agreement to participate was acknowledgement of their consent.

Interviews with nurse managers involved in coordinating and administering STI care were conducted using teleconference, or at their work sites to minimize inconvenience to the participants. Participants incurred no expenses, however they were asked to give up 30 minutes of their time.

I had an interview guide that was reviewed by the committee to ensure the questions were topical. The questions explored and the issues that emerged within the focus groups remained topical (Patton, 2002). This interview guide was made available to the participants and the committee for inspection. An opportunity to assess how the changes to the Health Professions Act impacts work and services is a potential benefit for the participants and the findings will be made available to them upon completion of this thesis. There are additional potential benefits for those who participate in small group

interview because they are provided with the opportunity for discovery, support and networking.

Confidentiality was maintained by assigning the participants with coded identification numbers and data was stored in a protected network. All hardcopy data was kept in a locked cabinet. Only members of the investigative team had access to data.

Prior to undertaking the research activities I obtained ethical approval from the University of British Columbia Behavioural Research Ethics Board. In addition, ethics was received from each participating health authority's research ethics committee.

*Conclusion*

The method used for this research was a non-categorical qualitative approach called interpretive description that was informed by complexity theory. This approach is congruent with the method of research. Complexity theory offers an explanation of the systems that govern health care. Purposeful sampling resulted in nine interviews (five individual and four group interviews). Scientific quality was maintained through reflexivity and accurate representation. Further, my research committee guided and reviewed the process. Ethical considerations were met through UBC, VCH and NH.

CHAPTER FOUR: FINDINGS

Society creates complex systems in order to organize, regulate and govern itself. In democratic societies, systems are inherently in a constant state of change. This has been especially true for the British Columbia health care system, which has been experiencing ongoing major shifts and changes for approximately 20 years (Bryant, 2009). Complexity theory informs us that change is a multifaceted event that rarely occurs in isolation, or as a one-time event (Clancey et., 2008; Miller, 1998; Wilson, 2009). The impact of change within the healthcare system can be significant. Therefore it is important to understand how the implementation of system change unfolds.

In this study, BC public health nurse managers faced the challenge of implementing a significant change in legislation regarding nursing practice within the realm of sexual health care. An analysis of the nurse managers' experiences could contribute to a greater understanding of this process of change management and inform improvements to the process in the future. This is important because the management of change is a constant in the healthcare system. The purpose of this research was to interview nurse managers in British Columbia regarding their experiences when implementing CRNBC certified practice in STI for frontline nurses in BC.

In this chapter, I present the analysis of the interviews with the nurse managers. I outline two themes; (a) consistency with nursing values; and (b) structural constraints. Each theme has three sub-categories that emerged illustrating the nurses' perspectives on implementing certified practice within their sexual health programs. To begin, I describe the nurse managers, their relevant health authorities and the programs that they manage. I

then present the two themes that illustrate how the nurse managers experienced and responded to changes in the Health Professions Act regarding reproductive health STI certified practice and how these legislative changes affected the coordination and administration of the sexual health service programs that they manage.

*The Participants*

I interviewed sixteen nurse managers from three health authorities in British Columbia about their experiences of implementing changes in legislation regarding certified nursing practice in the care of people experiencing or at risk for sexually transmitted infections. The nurse managers coordinate and oversee community and public health nursing resources in urban and rural settings. They provide professional and clinical leadership in planning, delivery and evaluation of community and public health nursing programs. They are involved in creating and implementing policy, procedures and standards for public health nursing services. At the time of this study, four nurse managers were responding to system changes in certified practice and additional system level changes in their health authority that directly involved HIV services. All nurse mangers were registered nurses; 15 were women and one was male. All of the nurse managers were committed to this research and demonstrated a great deal of passion for their work.

*The Health Authorities*

I interviewed nurse managers from three of the six health authorities in British Columbia. One was the Provincial Health Services Authority (PHSA) that has a mandate to provide specialized service to BC residents and to collaborate with the other five health

authorities. BC Children's Hospital, the BC Transplant Program, the BC Cancer Agency and the BC Centre for Disease Control are situated within PHSA.

The two other health authorities in which the nurse managers worked are geographically large; one consists of an area of 58,560 square kilometres and the other 600,000. Both health authorities contain urban and rural health care settings. There are a variety of sexual health services provided in each health authority and there are some notable similarities and differences between rural and urban settings. Both nurses and physicians provide primary sexual health services in urban and rural areas. The registered nurses provide sexual health services in clinics, community health centers, nursing stations, family practice units, public health units or outreach settings. STI services were usually offered during designated times one to two times per week for four to eight hours depending on the clinic. Sexual health clinics are also operated in each health authority through Options for Sexual Health (OPT), a non-profit provincial program for reproductive health. OPT clinics are managed and staffed by nurses or physicians. OPT clinics historically target young women with a focus on contraception (Options for Sexual Health, 2012; personal communication, 2012).

One health authority provides specialty services and practice support to the other health authorities in the province for example the BC Cancer Agency, BC Women's hospital and the BCCDC. One health authority has 30 health units, clinics or health centers and the other has 26. Each health authority is responsible for delivering services including population health and wellness, primary health care, acute care, home and community services, mental health and addictions.

*Themes*

Thematic analysis of the data revealed two overarching and inter-related themes, namely (a) consistency with nursing values; and (b) structural constraints. The first theme has three sub-categories: autonomy, recognition and role clarity. The second theme, structural constraints, has three sub-categories: multiple models of practice; training and education barriers; and competing system changes. Certified nursing practice was consistent with the goals of the nursing profession of being a regulated and recognized profession; however multiple and competing challenges constrained attainment of these benefits.

*Consistency with nursing values*

One theme that emerged in the data as a positive factor in the implementation process was consistency with nursing values. The definition of a value is something (as a principle or quality) intrinsically valuable or desirable (Merriam-Webster dictionary, 2011). As a group, the nurse managers clearly viewed certification as an important and exciting development for the profession of nursing. They reported that the nurses who had taken certified practice were proud and had experienced increased job satisfaction. The participants noted in particular that certified practice enhanced nurses' autonomy in their practice, supported recognition for nursing's expertise in providing STI care, and led to greater role clarification for nursing within the health care team. I detail each of these benefits in the following sections.

*Autonomy*

Autonomy is an essential characteristic of a profession (Pangman & Pangman, 2010). Participants identified the importance of self-governance and the ability to provide

specialized training for frontline nurses. The nurse managers felt that the Health

Professions Act and the legislated scope of practice permitted the nursing profession

autonomy to control its practice through education, training, and discipline. They stated

that with this autonomy came the ability to have decision-making power in their own

practice that, in turn, led to greater collaboration within the health care team. As one

participant (FG3_01) states in the following:

> But it's no longer the physician saying, 'You will do this, you will do that';
>
> that the nurse has some decision-making power under their own practice and
>
> scope now – and it's less about taking orders, and it's more about making
>
> decisions – and collaboratively making decisions within a healthcare team. So
>
> I think it's created a more team environment, of… collaborative professionals.

In this study, participants spoke about the link between autonomy and job satisfaction

and acknowledgement for nurses in their role providing sexual health services. As

another participant (FG7_01) expresses in the following:

> I think the strengths are again just giving better job satisfaction to nurses and
>
> more autonomy and allowing them to kind of acknowledge the work that nurses
>
> do in a way and give them recognition and support for it I think.

The nurse managers valued autonomous practice and believed that certified practice

provided autonomy for a specific set of skills for sexual health services. Further the new

certification gave a new legitimacy to a set of skills the nurses had been historically

involved in. With this legitimacy came recognition that sexual health practice was within

the scope of nursing practice and with certified practice the nurses could diagnose and treat specific STI conditions.

*Recognition*

Nurses throughout BC have long been providing sexual health services, including diagnosis and treatment of STI's (Swalwell-Franks, et al., 2007; Wearing & Nickerson, 2010). As noted previously, this work was done under the guise of delegated medical function. Participants expressed that the process of certification gave nurses an opportunity to articulate their own practice and gain recognition for their expertise. The new regulations legitimized nursing practice that was already occurring. As one participant (FG2_01) states unequivocally:

> That certified practice finally brings to light what nurses do. The change in the legislation, then the change in scope of practice with a shifting of scope of practice, finally acknowledges what nurses have done – in some cases for decades. Right? And so that's the real benefit and draw.

Nurse managers stated that they were satisfied that with this recognition, the nurses could now practice within their scope of practice instead of what had originally been either outside of their scope of practice or under delegated medical function. In the following, one nurse manager (FG3_01) states with enthusiasm what was described in all the interviews:

> So, when certified practice, we first heard it, I initially thought it was a fantastic idea – a way to acknowledge nurses and the advanced work that they're doing and the expertise that they're doing…I think it was kinda like (the) rolling (out) of the

nurse practitioner role as well - I could see a lot of similarities - and that *finally*,

we're *acknowledging nurses* who are *experts* in a field – and who do these things

above and beyond your basic level of nursing. And I thought that that was a

fantastic way to do it. And I also really thought it was amazing…to acknowledge

nurses as their own profession; an independent profession who are making

decisions and taking responsibility for their work… and not going under the cloak

of a doctor.

Statements from the participants regarding autonomy and recognition were

interwoven. Autonomy, recognition, and a third sub-category, namely role clarity, are

intertwined and important to nursing because they help to overcome historical

marginalization of nursing practice and enable nurses to function as recognized

professionals in clearly defined roles.

*Clarity of roles and responsibilities*

Role clarity regarding nurse's scope of practice fosters a common understanding

among other professionals. The respondents commented on how the lack of role clarity

would interfere with professional relationships with regard to roles and responsibilities.

The participants expressed that in their experience prior to certification, physicians,

laboratory personnel and pharmacists did not understand or acknowledge the scope of

nursing practice. There was an expressed hope that as professionals in other disciplines

become more acquainted with nursing's scope of certified practice, this tension would

lessen. This was illustrated by another participant FG1_02 in the following:

The kind of territory that hasn't been sorted out yet—say territory with pharmacy;

who actually don't think that nurses should be dispensing. And there are facilities,

even in Vancouver, where the nurses actually aren't doing the practice because,

you know, there may be a pharmacy connected with the facility who says that

"We're the only ones that are going to distribute the drugs here and you need a

prescription." Of course the nurses can't… you know, do the prescription. So the

nurses are not doing that practice, so there's certain—there's a lot of systemic

blocks from making it work. Which actually are probably far more costly to the

healthcare system, than if there was more supporting structure.

The nurse managers described a sense of waiting for the system to shift and the

other professions to gain an understanding of the nurse's scope of practice. As another

participant (FG2_01) explains:

I get… I'll use the word frustrated … I don't know what other word to use… with

nursing being the first group that's gone through this legislative change; that

there's a lot of fence-protecting going on, with some of the other professions?

That's my perspective, in that, 'Well nurses can't do that, this is our job.' It's like,

'No, but it's legislated that we *can* do it'

Several of the nurse managers believed that relationships with family physicians

had already improved with the implementation of certified practice. One nurse manager

(FG6_01) describes how she did not like it when nursing practice was under delegated

medical function: "It was not a good scene so I think this is, I see actually I think our

relationships with physicians now are much stronger and more professional as a result of

being able to do all of that." The nurse manager is suggesting that role clarity lessened confusion and conflict around the roles of certified nurses in providing STI care in a multi-disciplinary team.

The greater role clarity regarding the scope of practice and the educational preparation of a nurse who was certified was also helpful for nurse managers as they engaged in hiring practices. Standardized education for STI certified practice allowed the nurse managers to recognize the level of knowledge a nurse would need to have for providing STI and HIV care. In addition the standardized education provided the nurse managers with the capacity to rely on the nurse for a specified level of skills and responsibility for the provision of STI care. As one participant (FG5_01) states:

> You now know that if you do hire somebody that is certified you know, what their background is and what kind of level of education they have so I think that's a huge benefit to the process.

In the same vein, another participant (FG9_03) identifies how a standardized education produced a common and dependable level of knowledge and skills in the following:

> For me I think the benefit is to ensure that we're all coming with the same knowledge and skillset that when you standardize what's required it's like going into a nursing program, you standardize a nursing program so we all come out with a knowledge base and a skillset that we can use going forward.

Standardized education was generally thought to advantage the nurses and nursing and is seen as a precursor to quality healthcare. Shared role expectations related to skills and knowledge are conducive to an effective healthcare team.

Autonomy, recognition and role clarity are important factors for a profession to move forward effectively. All the nurse managers stated that they appreciated the changes in legislation regarding certified practice as it provided the framework in which autonomy, recognition and clarity of roles and responsibilities were now recognized elements of STI nursing practice.

*Structural constraints*

Constraints are situations or obstacles that prevent a process or communication from moving forward as anticipated (Merriam-Webster Dictionary, 2011). Complexity theory reminds us that the context in which the system change for certified practice occurred was multifaceted and that factors will arise that create barriers to implementation of certified practice. A number of barriers affected the experiences of the nurse managers. Understanding these barriers will inform an understanding about what nurse managers have to deal with when they are trying to do their job of implementing a change in health policy.

*Multiple models of practice*

There is a diversity of STI nursing models of practice that nurse managers have to coordinate. Within STI service programming in each health authority, there are a number of different nursing designations and nursing roles. These include registered nurses (RNs) with a regular scope of practice; RNs who are certified in STI nursing practice;

RNs who are certified for rural and remote practice that includes STI certification; and nurse practitioners who have graduate degrees and an expanded scope of practice. Additionally, there is significant diversity in the interrelationships between nurses and physicians providing STI care. For instance, particularly in rural and remote practice, the RN is the primary care provider for STI care. In other clinic settings, nurses work as multidisciplinary team members in which physicians carry out the bulk of diagnostics. The organization and delivery of STI services within the programs managed by the participants reflect these diverse scopes and models of practice and contribute some uncertainty about how certified practice would fit into existing programming. Standardization and regulation provide consistency for public health policy; however, a one-size-fits-all solution may be unable to address and support diversity in existing practice. Diversity of practice is an important consideration and provides its own challenges when deciding on whether or not to implement certified practice. In the following interview excerpt, a participant (FG7_01) describes a situation where the nurses are working in multi-disciplinary teams and have different roles within those teams:

> Looking at workload doesn't make sense because they're very busy in their roles so it like doesn't make sense to layer and they're in the same building as primary care. So primary care is downstairs like our community health center models all of them have addictions and demand primary care, … and their argument to me is well we just have them (clients) downstairs, walking downstairs and there's six nurses down there who can do pelvic, they've got pelvic tables, they've got exam

rooms, they don't have to wait so does it make sense for us to recreate a mini primary care clinic upstairs?

At the forefront of these challenges were questions regarding where the role of certified practice made sense; how would the nurse maintain certified practice standards and how would the nurse fit what was perceived as additional responsibilities into their already busy schedules? This was particularly relevant for nurses who delivered primary care in an urban setting where the emphasis was on mental health and addiction care as eloquently described below:

> (FG6_01): We're seeing a big, whole list of nurses go through right now because we've decided that, you know, this is, it was in the scope of their job and, you know, between you and me I'll be kind of interested to see how many of them actually use the skills and it's a little bit of a personal concern I have is that I think it's a good idea but at the end of the day when we look at, you know, where they're working and what their workloads are like and stuff like how realistic is it that they're actually going to be doing STI testing and treatment?

When training and education directly support the nurse's current practice, nurse managers will often try and support it. Nurse managers in this study had to decide if certified practice was pertinent to the nurse's present-day practice. According to some nurse managers there was initial confusion regarding whom to certify. It was commented on by three nurse managers that often with the service delivery areas being so large and diverse that the nurse managers may not know immediately the kind of STI service that is being provided at every site. As the nurse manager (FG2_01) states in the following:

But regularly is that some of the managers, depending on where they're at and what their…scope…or portfolio is. They might not know what's happening in all those little enclaves; in the STI clinic and the smaller community and all the STI clinics in the health authority looking to… try to standardize some of the work, because, again there's a huge range (of models of practice)…

In urban settings there are nurses delivering STI service within existing roles and new nursing roles being developed with STI/HIV services being added to current services. For nurses in rural settings there are nurses delivering STI service in public health units, but there are also nurses working in a multi-disciplinary team where the nurse managers have to include physician-based care in their decision-making.

In this excerpt, a nurse manager (FG7_01) reiterates the challenge of deciding whether or not to certify the nurses in a busy urban clinic:

It's a challenge to figure out an easy way for screening for it sounds silly but for clinics where they might not need to be certified so the diagnosis and treatment always happen in collaboration with the physician like a clinic that has a hundred percent physician access all the time every day...

The process of change and implementing certified practice requires leaders to network and communicate with stakeholders including frontline nurses, educators, professional practice leaders, inter-professional colleges, the CRNBC and the BCCDC. When taking into account the multiple models of practice, nurse managers described difficulty with communication with the designated practice leads, the CRNBC and the BCCDC while implementing certified practice. The designated practice leads were nurses

put forward by the Health Authorities to take the lead in communicating the progression

of certified practice and to bring back any concerns or questions that nurses in field may

have had while certified practice was being created (Swalwell-Franks et al., 2007). The

nurse mangers stated that communication was not always straight-forward and at one

point one of the health authorities had their designated practice lead step down and move

to another position leaving that position empty for a period of time not disclosed by the

participants. As the next quotation from a nurse manager (FG7_01) illustrates:

> It's confusing of what's certified and what's not like it's, it's quite clear to me
>
> when (name of a nurse)… So if you have like a line to (name of the nurse) it's
>
> kind of clear in my head, I think, but it's not clear on like the CRNBC or BCCDC
>
> (websites) and the non-certified practices people think then, okay, well __ I can't
>
> do that anymore because it's not certified so it's like kind of muddled up

The different models of practice illustrate how the healthcare system is complex

with each practice settings habitually acting as their own entities. The literature that deals

with complexity theory describes how communication is rarely linear with

straightforward cause and effect outcomes (Miller, 1998; Wilson, 2009). Instead

complexity theory explains that communication is most effective when the different

players; the nurse managers, professional practice leads, leads at the CRNBC, leads at the

BCCDC are allowed a high inter-connectedness where feedback loops can exist for

information to flow formally or informally (Miller, et al., 1998; Penprase & Norris, 2005).

The nurse managers describe a linear communication pathway that was top down and

was frequently inefficient. This difficulty in communication resulted in a lack of clarity

for many nurses and nurse managers regarding which nurses would benefit from

becoming certified in which practice model. In addition nurse managers initially did not feel that the CRNBC's web site on scope of practice provided straightforward direction. The CRNBC's web site was unclear about the difference between regular scope of practice and certified practice. This created role and practice confusion resulting in a withdrawal of sexual health services in some areas. This was a definite concern. As one study participant (FG9_01) states in the following:

> So really they're (the clients) encouraged to go elsewhere. The other part of that though is just up until the last year (name of town) had three thousand people without a physician. So when we didn't do it (STI service) I don't know that they were getting it done elsewhere either.

Nurse managers in both authorities recognized the importance of regulation and certification to public safety; however they also commented on how new regulations paradoxically stopped many nurses from providing services they had always offered. Unless the supervisor or nurse manager recognizes that STI/HIV prevention is an integral part of the nurses' work within the practice model that she /he worked and chooses to send them for training, it temporarily or permanently suspends the nurse from continuing to do that work.

The nurse managers who had large rural areas under their jurisdiction had special concerns regarding implementation of certified practice, the multiple models of practice and the maintenance of competencies. One participant (FG8_03) articulates a common concern in the following: "…and so it, certainly the question has come up how often do, do the nurses need to do it and the nurses are even asking that question."

The very nature of being rural or remote gives rise to the generalist role of the nurse. Contending with conditions across the full spectrum of health issues means that front line nurses may not experience a high volume of clients requiring STI care.  There is therefore the concern as to what the expectations of CRNBC will be regarding the number of clients seen or diagnosed as enough to maintain competency.

   The multiple models of practice that exist in rural areas have specific considerations. The trend in Canada towards increased certification and specialization presents a challenge for rural nursing. Policies and education are often developed in urban centers where decision-making often occurs without consideration of the rural nursing experience. For example there is concern that the new focus on certified practice and regulation brings with it language of legality which encourages prescriptive practice and discourages careful, critical thought that takes into consideration the needs of the individual in the context of their community  (Browne & Tralier, 2011; McIntyre & McDonald, 2010). The rural nurse managers articulated that with certified practice regulation in place the CHN's could no longer draw on critical thought, STI guidelines, local resources and other health care providers to provide competent care. In the following a nurse manager (FG8_03) describes how formal regulation makes it more difficult for rural nurses to perform the practice that they would have done regularly in the past:

> You know, there's certainly more checks and balances in more recent years with good reason.  But at the same time it really limits what was in the past an expectation of nurses who worked in a rural and remote area. An expectation has come with a huge price tag as well as a long piece of mentoring and certification

and then it's the ability to ensure that you maintain that certification… But the legal piece of it and the licensing piece of it has become a, in some ways a barrier to continue the care that needs to be done for the people in the province…And yet at the same time I'm not saying it's not valuable, I get the reason why it is where it is

The nurse managers recounted how a lack of communication with CRNBC during the implementation of certified practice resulted in very little consultation. Literature on nursing leadership highlights the importance of including nurses in meaningful consultation. Consultation and inclusion are essential to produce shared meaning, ownership, and increased uptake of change (Ganann, et. al., 2010; Pangman & Pangman, 2010). This is especially true in a complex system where there are multiple stakeholders who are involved in the delivery of multiple models of STI care (Pangman & Pangman, 2010). One nurse manager described communicating with the College in the beginning when certified practice was just starting to roll out. She (FG2_01) states:

I think the college, from my perspective, was… with the switch from the association to the college, was undergoing their own evolution? And… having, at times, difficulties… either difficulties in delineating what their role was. Or difficulties in their membership accepting that role. And, so sometimes we would go to them with questions, and not like the answers we got – and let them know we didn't like it… it did not always feel like they were supportive… I think that's shifted over time; that's evolved over time…

With the reality of multiple models of STI service communication is essential. In the following interview excerpt, a nurse manager articulates that even though the

implementation of certified practice will look different in each health service delivery area she thought a system for communication that included the nurse managers as well as the certified nurses would make it clearer and more effective. As she (FG4_01) states:

> For (a HSDA)…I said on the phone, I really think we need to have … we need to have the managers of these programs, as well as the certified practice nurses… having some kind of a communication link, where whenever new stuff comes in…somebody needs to catch the ball…and then we need to have a telecall… to…at least to be aware of something new that's come into place. And then the rollout might be slightly different, depending on the… on the HSDA that you're in.

The participants included in their concerns regarding communication comments on consultation with the nurse managers more broadly. One participant (FG3_01) refers to this in the following:

> I was really concerned about the STI decision support tools; … I didn't think that they reflected community practice. They reflected very much a BCCDC model of practice. … things like referring to microscopes; we're like, you know, we don't have microscopes in most of our clinics. We can't get pH paper; we don't even know where to get pH paper. KOH; some clinics have it, some clinics don't. Like, so there was a lot of stuff that they would refer to in their DSTs

The multiple models of practice had an impact on the implementation of certified practice. Nurses have different titles including registered nurse and nurse practitioner. Each role has a different scope of practice that is contingent on two factors: the configuration of the model of service in which they practice; and how the nurse manager

perceives the fit of certified practice into the services provided. For example a registered nurse's responsibilities in a multi-disciplinary setting would look quite different from a nurse who works autonomously in a rural or remote setting.

*Training and education barriers*

Continued training and education throughout a nurse's career is valued in nursing with respect to professional development. Certified practice training is recognized as professional development. The nurse managers were aware of two trainings that nurses could enroll in to become certified. One is through the British Columbia Institute of Technology (BCIT) and the second is through the British Columbia Centre for Disease Control (BCCDC). Although five of the participants stated they were unclear of the differences between the BCIT training and the BCCDC training there were two major differences described by the other nurse managers. They spoke about one difference between BCIT and BCCDC, namely that BCIT offered the theory component only and not a practicum for their training. Nurses who took the BCIT course were 'cold calling' to find their own placement for their STI practicum. 'Cold calling' is when the individual nurses relies on her own professional relationships and connections in order to find time and a place to practice the newly gained skills. As one participant (FG8_02) states:

> But I gather BCIT is also offering certified practice and one of the nurses came to me fairly choked because she said their learners apparently were just phoning up clinics and trying to negotiate coming in for clinical experience.

The other difference that was recognized was that the BCCDC training is a more comprehensive training but also described difficulty with a lengthy waiting list at the

BCCDC. Being more comprehensive may have made BCCDC a more desirable training, however the BCCDC can only absorb a certain number of nurses for training at a time. This is noted in the following interview excerpt with a nurse manager (FG6_01) who states:

> The challenge we have run into is that because our standard is that our nurses go through the BCCDC program is the online modules which I'm sure you're familiar with and then the practical experience piece. And what we're finding particularly with the addictions nursing staff coming on is that we weren't able to get people through fast enough because BCCDC had a cap on the number of people that they could take…So that made us all a bit crazy. … the online courses is a huge bottleneck and that's fine but we really believe that we can provide the practical experience within our own health authority well and to the quality that BCCDC requires and that we can then get a lot more people through because having to wait for the space at their clinic is, is problematic for us and it's impacting our ability to do the work that we need to do in the community…

Most nurse managers recognized the value of a central place where experts develop a specialized body of knowledge; however, the BCCDC STI clinic, where certification training is located, is singular in that there is no similar service in the province. The participants expressed concerns that if certified practice is about describing and supporting nursing practice then it needs to address and reflect diverse practice settings and challenges that do not exist at the BCCDC clinic. One participant (FG7_01) describes how the training was very narrow in scope and did not support the existing diversity of practice in the following:

The tighter…. like there's a balance there between making a really high quality intervention that's like, it's exactly like it happens at the BCCDC clinic and you can, you know, wear your little white coat anywhere and do it perfectly without error. Or it's a bit more like you let out the reins and you know that it's not perfect but the fact of the matter is many more people are screening and like even at our detox the nurses think they can't take like a urine, in their intake they have to do a _whatever_ and they think oh I can't I'm not certified but actually ... they can…

Another barrier to sending nurses for extra training was workload. Nurse managers indicated that they were acutely aware that nurse workloads, often combined with diminished resources, made for a difficult environment to support the nurses by allowing them to be certified. As one participant (FG6_01) states:

Across (the HSDA) they all have different issues around, you know, staffing and all of that that for every site to stay, yes, absolutely I can free a nurse up eight hours a week to do this course. Well, you know, it's probably not going to be realistic and then, you know, there has to be a little bit of give and take there in terms of what we're going to be able to manage because again I can't tell you what the staffing situation is in every single site across (HSDA) you know, I have no idea what the public health nurse up there whether they can spare her for eight hours I'm guessing probably not but I, you know, [laughing] I don't know, you know..?

There are studies that show that health care service delivery areas have an added challenge in that there was a loss of nursing time in home communities when training and education is centralized in urban centers. (Kulig et al., 2007; McIntyre & McDonald, 2010). The rural nurse managers recounted how they had difficulty replacing and paying for staff replacement when nurses left their communities for training. The participants were concerned about the loss of services if they were not able to replace nurses who left for training. One nurse manager (FG8_02) notes this challenge in the following:

> The biggest challenge for us now is just workload because we have new staff starting. It takes time to get them up and running, get them through the course, certified. And the wait lists want to be if there is an STI'S course as well so that's the biggest challenge for us is that we, we then have to provide additional coverage for those services until that staff member is certified plus the cost.

The last challenge that all the nurse managers articulated concerned the difficulty for regulating bodies and certifying institutions, at a time of increased specialization, to recognize evolving practice and provide responsive support. Training nurses for certified practice, like any other professional development, may garner increased uptake if it is able to keep relevant to the specific nursing practice. Nursing practice evolves and changes over time as a result of being responsive to client and community needs and the healthcare system. Each nurse manager noted this integral characteristic of nursing practice. As one participant (FG2_01) states in the ensuing quote:

> But recognizing that that's just a snapshot; that nursing practice evolves. And so that the snapshot that was caught, even five years ago, might not be where things are at now. And the challenge for legislators, to see if that's maneuverable or…

movable, versus something completely static. Because my guess is in... imagine

that we're going ahead in the future 10 or 15 or 20 years, my guess is that nurses

will be doing things that are not exactly written out as they are in the legislation

right now – under Delegated Medical Practice, under whatever it might end up

being—and there might have to be another... shift.

The nurse managers in this study valued continuing education and training and

viewed it as professional development. Additionally each nurse manager expressed

concern regarding the ability of the training to reflect the changing face of nursing

practice. Each nurse manager was concerned regarding the lack of resources to send

nurses to the training. These constraints were exacerbated by other change processes

going on in the healthcare system.

*Competing system changes*

Often one system change can intersect with another system change. These

changes can be created in isolation of each other but in reality because the changes can

include the same stakeholders they are often experienced simultaneously. The nurse

managers in this study described three major system changes that they were involved in

during the implementation of certified practice that created further challenges to the

implementation certified practice. The three major system changes were STOP HIV, a

provincial wide testing and treatment initiative for HIV; the H1N1 flu epidemic; and the

Integration of Primary and Community Care (IPCC) initiative in which the health

authorities are being directed by the Ministry of Health to integrate primary health care

services. Each of these initiatives increased nursing workloads both at the front line and

in management and therefore affected the time and energy that could be devoted to implementation of certified practice.

The first system change for these health authorities was an HIV health initiative called 'STOP HIV' which started in February 2010. The acronym stands for: Seek and Treat for Optimal Prevention of HIV/AIDS, (STOP). Forty-eight million dollars was divided between Vancouver Coastal and Northern Health Authority, PHSA and the BC Centre for Excellence (BCCfE). The goal of the initiative is to expand testing and treatment to hard-to-reach and vulnerable populations (BCCfE, 2011). In both regional health authorities the nurse managers have had to plan how to expand HIV testing. Multiple new nursing positions were created in these authorities to provide HIV services in an urban setting (Vancouver and Prince George) as part of the provincial STOP initiative. HIV testing is not part of certified practice and is inside the regular scope of practice for a registered nurse. However, offering HIV testing is closely connected to offering testing for other STIs and blood borne pathogens. So nurse managers wanted to have the new HIV nurses hired under STOP to be certified, but this came up against the bottleneck of limited training slots. A nurse manager described the situation she was in after responding to STOP by hiring a large number of nurses and then not being able to certify them in a timely manner. As this nurse manager (FG6_01) states:

> So I think once we get that kind of big group through that it should settle down a little bit because when I look at the…the waiting list at the BCCDC for (the HSDA) and the vast majority were addiction staff and they were a lot of them. So we're slowly getting that cleaned up and once we get this pilot out of the way and

presumably everything goes okay, you know, we'll be able to get them preceptored pretty quickly I think.

The rural nurse managers discussed workload and large-scale public health issues such as H1N1 and expanded immunization programs that influenced the implementation of certified practice. In such settings, the number of nurses is limited. This sets up a conflict between the needs of urgent priorities (e.g. H1N1) and the need for certification so that STI services can be maintained. This is an example of the multiple elements that exist in the health care system. Complexity theory reminds us we cannot assume a linear process. This nurse manager (FG3_01) statement shows how the frontline nurses are a conduit for multiple events :

So it was literally certified practice right into H1N1 … you know, I think… (name of nurse) and I tried our best to organize it as best we could.

The third major systems change is IPCC, the primary health care integration initiative. This has been under way since 2009 but the very phenomenon of change creates the experience of being unsettled and unsure. It is a large provincial systems transformation requiring a paradigm shift as well as a structural shift in order to move the focus of health care from the acute care setting to primary health care centers. This will involve many more multi-disciplinary teams including doctors, nurses and nurse practitioners working together so that the need for certification of nurses may be less necessary. The participant (FG7_01) states:

It, um, it's a challenge to figure out an easy way for screening for it sounds silly but for clinics where they might not need to be certified so the diagnosis and

treatment always happen in collaboration with the physician like a clinic that has

a hundred percent physician access all the time every day…

Another participant (FG2_01) voices a similar concern about the evolving

structure of primary care:

At a time when… it's fair to say that public health, which runs basically all the

STI clinics that I'm talking about … is… evolving. It's changing. It's …people

don't know, what their (public health infra-) structure is – let alone reporting

structure…

*Summary of Findings*

Implementing change in the health care system is challenging. The literature

shows that utilizing the nurse manager is conducive to success when executing a health

policy change (Cummings & McLennan, 2005; Ganann, et al., 2010). It is the role of

nurse mangers to be change agents within their respective organizations. This study

found that consistency with nursing values was an important factor that benefited the

implementation process. The nurse managers in this study appreciated the benefits of

regulation and certification but experienced challenges during the implementation of it.

They articulated that the importance of the ability to self govern and set the standards for

education was essential for an autonomous profession. The participants anticipated that

the nursing profession would enjoy more recognition and have a much clearer role as a

result of certification.

While consistency with nursing values was an important element for motivating

the nurse managers, they were challenged by structural constraints in the system. The

first challenge for the nurse managers was to make decisions around multiple models of practice and when to support certification in relation to programs they were delivering and populations they served. Certified practice for STI care represents a narrow aspect of a nurse's work and this practice will evolve within diverse practice settings. The second challenge was with regard to training and education. Long wait times for BCCDC training was identified as a challenge and for more northern health care service delivery areas providing time and coverage was challenging. Centralized training was also seen as a barrier for nurses outside the Lower Mainland. Lastly, implementing the health care policy change was challenged by other concurrent system change imperatives that created conflict for the scarce resources of time and money.

CHAPTER 5: DISCUSSION

In this chapter I discuss the significance of developing a greater understanding of nurse managers' experiences with the implementation of STI certified practice. I specifically explore the findings in relation to literature concerned with nurse managers' implementation of policy change and health care reorganization, the implication of the nurse manager's perception of the benefits and the unintended consequences of inter-related systems that operate independently. I also examine the recommendations for nursing research, education, and practice that were generated by this project. Finally, I conclude with a discussion of some of the limitations of this work and strategies to address them in future studies.

Research that analyzes the implementation of change in the healthcare system is essential to understanding effective change management amid constant reorganization. Much of the research on change in the healthcare system is focused on the acute care sector. Current research also indicates that co-incident system changes will have an effect on the implementation of any individual change (McIntyre & McDonald, 2010). As result there is great interest in having a greater understanding of how to effectively manage change in public health.

The literature states that the implementation of new policy is poorly understood particularly in nursing (Bergen & While, 2005; Pleog, et al., 2007; Shanley, 2007). Studying the nurse manager's experiences in implementing the new STI certified practice for nurses has given new insights into the facilitators and barriers to transforming policy into practice.

Additionally, in the nursing literature and in the research on change management there is general agreement about the importance of nurse managers in relation to managing change in the health care system (Borbasi & Gaston, 2002; Gannan et al., 2010; McIntyre & McDonald, 2010; Shanley, 2007). It is the nurse managers whose role is to manage the change (Shanley, 2007). The nurse managers in this study were in a pivotal position and their perceptions provided insight into the effectiveness of the system change of a new health policy. My research adds to the understanding of the nurse manager's experience of implementing change within a dynamic complex healthcare system.

Consistency with nursing values emerged as an important positive theme in this study. The nurse manager's belief that STI certified practice is beneficial for nursing was identified as a critical success factor. Complexity theory and the literature on change management speak consistently to the importance of the managers or the champions of the change believing in that change in order for successful implementation. Interestingly the belief that certified practice provides more professional autonomy is, in actuality, more nuanced then it first appears. The decision as to whether or not a frontline nurse provides sexual transmitted infection services resides with the employer or the health director. Frontline nurses cannot on their own decide whether or not they will provide the service. This puts added importance on to whether or not the nurse managers could visualize nurses providing certified practice. It was the belief in certified practice's importance that helped them to envision it in the programs and services that they administered.

This research identified two fundamental themes regarding the implementation of the new health policy of STI certified practice for community and public health nurses. First, the proposed changes depended on being consistent with nursing values including autonomy of the nurse, recognition of nursing as a profession, and greater clarity around the role and contributions of nursing. Second, structural constraints threatened the implementation of STI certified practice including insufficient resources to provide the necessary space for training, lack of workload release to allow for training and certification, multiple models of practice, and competing system demands.

These findings are generally consistent with the both the nursing literature and literature on change management. Bergen & While (2005) found that the extent to which a new policy was implemented coincided with professional (nursing) values was critical to success. Cummings and colleagues (2003) reported the importance of clarity around role definition and vision in fostering successful change. Ploeg and colleagues (2007) reported that positive attitudes and beliefs among the nurse managers were essential to success. In keeping with these previous studies, I found that the values of the nurse managers were given voice in identifying autonomy, recognition and clarity of the nursing role with regard to certified practice for the domain of diagnosis and treatment of STI's. This alignment of nurse manager's values with any healthcare policy change is a critical success factor to implementing policy change.

This research also identified structural constraints as a theme that created barriers to successful change. In part, these consisted of inadequate resources to provide enough training spaces and to allow work release for nurses to enter them. This is in keeping with the findings of Cummings and colleagues (2003) who reported that resource support

was a critical success factor in their research, and Ploeg and colleagues (2007) who identified time and resource constraints as critical barriers.

Competing system changes were clearly identified as a barrier to change in my research. While Bergen & While (2005) and Cummings and colleagues (2003) do not address this directly, Ploeg and colleagues (2007) noted that organizational and system level changes were a significant barrier when such changes conflicted with the change initiative under study.

In summary, with regard to success factors such as promotion of nursing values and barriers such as inadequate resources and competing system changes, this research is wholly consistent with the existing literature. However, there appears to be an important barrier I have identified that has not previously been reported. This concerns the issue of the multiple roles that nurses play in the delivery of STI services and whether the design of the training for STI certified practice possesses the flexibility to take into account these multiple roles and the geography of where services are provided.

The previous literature did not identify the multiplicity of roles that nurses play in the public health system, let alone the entire health system, as a barrier to implementing healthcare system change, such as a policy change. Nurses have different titles including registered nurse and nurse practitioner. Each role has a different scope of practice that is subject to the conditions of the model of service in which they practice. For example a registered nurse's responsibilities in a multi-disciplinary setting would look quite different from a nurse who works autonomously in a rural or remote setting. The expense and time of training a registered nurse to be certified may not be warranted physicians

and/or nurse practitioners are diagnosing and treating STI's in a given setting. Perhaps multiplicity of roles was not identified in previous investigation as a result of the health systems in which such studies were conducted and/or the geography of the jurisdictions. Bergen & While (2005) studied the U.K system and involved front-line nurses, not managers. Cummings and colleagues (2003) investigated the implementation of advanced nurse practitioner roles restricted to one acute care setting in Alberta. What emerged from my research is that the multiplicity of roles of nurses and where their practices are situated (urban, rural, remote) must be taken into account in the design of the training for STI certified practice. This includes determining which nurses receive the training and how to deliver it given the geography of British Columbia.

Complexity theory describes how systems are made up of a multitude of parts that interact. When the inter-related systems seem to act as if they are independent, communication, networking and collective goals are harder to attain. This can result in different jurisdictions blaming each other for when things do not work out (McIntyre & McDonald, 2010). Different parts of a system may have different agendas and priorities; however, complexity theory shows that provision of resources that support networking and iterative two-way communication can lead to successful change (Wilson, 2009). Complexity theory reminds us that each part of the system is evolving together and interacting and needs to be considered to ensure the goals of a change are attained (Plsek & Greenlagh, 2001). The nurse managers in this research spoke of competing system demands, difficulty with communication, and lack of perception of coherent roles. The health authorities had designated professional practice leads whose roles were to communicate and address concerns from the nurses, but it was unclear in this research

how effective these roles were. This research suggests that if implementation had been more carefully planned around communication and clarity of roles, and had been provided with the necessary resources, it may have made the uptake less difficult.

*Conclusion*

This study aligned with the existing research on change management in the healthcare system in that it identified that successful implementation of a policy change required the change to align with the values of those responsible for implementation. The nurse managers in this study shared the values of autonomy for nurses, recognition of the profession, and role clarity. The barriers that were identified also aligned with the literature. Centralized training, workload and competing system demands are issues that come up in the research regarding healthcare re-organization and system change. The theme of multiple models of practice has not previously been reported. This research highlights the difficulties of a complex system that is comprised of different parts that may operate independently when in truth they are highly inter-related. When this is not taken into consideration, miscommunication and competing system demands can interfere in the implementation of new health policy such as STI certified practice.

*Limitations*

This is a small study with purposive sampling that provided an account of the participants' expressed experiences. Interviews with a larger number of nurse managers from all six BC health authorities would have enhanced the findings in this study. Use of in-person interviews only and other methodologies such as focus groups could have improved validity. The study was intentionally restricted to the implementation of a

policy change with respect to STI care in BC; a study involving implementation of other policy changes in other settings might have been more generalizable. The study was focused on nurse managers; if time had permitted it would have been useful to interview front line nurses to understand their experiences with respect to this policy change. Similarly, due to time and money constraints I was unable to include the implementation of certified practice in First Nations reserves. Including certified practice for nurses working in First Nations reserves would have added greatly to the analysis of implementing a new health policy and how the myriad of stakeholders inter-relate.

*Recommendations*

Future research with a larger participant base that included all the health authorities would be important in order to further our understanding of the experience of nurse managers who have been involved in implementing certified practice. Future research could examine external factors of larger system change and existing support systems, with a focus on how complex factors inter-link and are inter-dependent. These studies would inform managers and policy makers on effective change management to support nursing in a continually evolving healthcare system.

This particular implementation benefited from alignment with nursing values such as autonomy, recognition of the profession and role clarity. On the other hand, it suffered from communication difficulties and lack of adequate resources for training and release time. In addition, there were conflicting policy changes going on and the implementation did not fully take into account the many different services that nurses deliver in STI programming. Better planning and communication might have led to a smoother implementation.

Implementation of policy change by nurse managers benefits when the change is consistent with nursing values. Future change processes should include nurse managers in the planning stages to ensure that there is consistency with nursing values. Second, there should be a system-wide analysis and/or environmental scan of all the stakeholders in advance and consideration given to the multiple roles that nurses play in different delivery models. It may be too late for this policy change, but these findings could assist with future changes.

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APPENDIX A: Nurse Managers Interview Guide

Please describe how your units currently operate in relation to how you provide sexual health services. For example, how many nurses work in your units? How do clients 'flow' through your clinics? Who are the other health care professionals who work in the units? What are the types of services you provide (e.g., STI care, contraceptive care)?

Please describe how recent certified practice has impacted your clinical unit thus far? For example, how have you prepared for the implementation of certified practice?

Please describe any of the benefits you perceive in implementing certified practice in your unit.

Please describe any of the challenges you perceive to implementing certified practice, for example, cost, resource allocation, etc.

Imagine that we were going to design a program to evaluate the impact that certified practice has had for the delivery of care in your units. Please describe for me, in your own opinions, what the key aspects of evaluation should be for certified practice. This can include anything that you think is important for you as a manager, for clients, and for your staff.

Prompts/Topics to Cover

1. How did you first learn about the Health Professions Act and the changing scope

   of practice for nurses?

2. What were your first concerns/ ideas?

3. What would you want from the process?

4. How is the implementation process occurring?

5. How long will the process take?

6. What do you identify as strengths in the provincial healthcare system as you implement certified nursing practice?

7. What do you identify as challenges in the provincial healthcare system as they implement certified nursing practice?

8. What are the strengths in your own organization /or jurisdiction as you implement certified practice?

9. What are the challenges in your own organization/jurisdiction as you implement certified practice?

10. How do you describe the process of the changes to the Health Professions Act and your relation to these changes?

11. What factors do you take into account when making the decision to implement certified practice?

12. How do you see the politics of the day influencing your decisions?

13. Do you have the resources for staffing as well as structural support for implementing certified practice? Please describe

14. What are the benefits to implementing certified practice?

15. If you are not implementing certified practice, why not?

16. What are the drawbacks to implementing certified practice?

17. If certified practice is not implemented in your setting, what will you do instead?

APPENDIX B: Focus Group Participants and Job Titles

| Group Number | No. | HA | Codes | Job Titles | Transcribed | Proofed | Other |
|---|---|---|---|---|---|---|---|
| 1 | 3 | PHSA | FG1_01 | Team leader of STI/HIV outreach team | Yes | Yes | In person |
| | | | FG1_02 | Manager of STI/HIV outreach team | | | |
| | | | FG1_03 | Team leader of nurses at 655 | | | |
| 2 | 1 | PHSA | FG2_01 | Manager of an STI/HIV clinic | Yes | Yes | In person |
| 3 | 2 | VCH | FG3_01 | VCH Clinical Practice Lead for youth and nurse practitioner | Yes | Yes | In person |
| | | | FG3_02 | HIV/AIDS educator | | | |
| 4 | 1 | VCH | FG4_01 | Manager of Public Health and Prevention Services - Powell River and Sunshine Coast | Yes | Yes | By teleconference |
| 5 | 1 | VCH North Shore | FG5_01 | Community Health Nurse Child & Youth Team Leader | Yes | Yes | By teleconference |

APPENDIX B:  Focus Group Participants and Job Titles (Continued)

| 6 | 1 | VCH | FG6_01 | Operations Director for VCH | Yes | Yes | In person |
|---|---|---|---|---|---|---|---|
| 7 | 1 | VCH | FG7_01 | Clinical Practice Initiatives Lead - VCH | Yes | Yes | By teleconference |
| 8 | 3 | NH | FG8_01 | Public Health Nurse and Program Manager in Prince George | Yes | Yes | By teleconference |
| | | | FG8_02 | Public Health Nurse and Program Manager in Prince George | | | |
| | | | FG8_03 | Practice Development Leader in Northern Interior | | | |
| 9 | 3 | NH | FG9_01 | Public Health Nurse and Program Manager | Yes | Yes | By teleconference |
| | | | FG9_02 | Public Health Nurse and Program Manager | | | |
| | | | FG9_03 | Designated HIV nurse and Public Health Nurse and Program Manager | | | |

APPENDIX C: Information Letter

# T H E   U N I V E R S I T Y   O F   B R I T I S H   C O L U M B I A

**School of Nursing**
T201- 2211 Wesbrook Mall
Vancouver, B.C.
Canada V6T 2B5
Tel: (604) 822-7420
Fax: (604) 822-7466

November 23, 2010

**Project Title: Certified Nursing Practice and Sexually Transmitted Infections: The Perspectives of Public Health Nurse Managers**

The provincial government mandated that all nurses working in STI/HIV receive certification by April 2010. We have previously collected data on public health nursing practice and certification; however, nurse managers' assessments of certification have yet to be documented. We are planning to conduct focus groups with nurse managers to address this research gap. The primary aims of this study are to develop a better understanding of (a) the challenges associated with the certification process; (b) adaptations that nurse managers have to deal with the challenges of certification; (c) the benefits that have been provided through certification. Learning about your experiences with managing STI-related care will be used to inform educational and programming priorities, with the ultimate goal of enhancing the delivery of care to those client populations most affected by STI in BC. Such an understanding will also allow us to evaluate the impact of certification and continuing education programs on the delivery of STI-related care throughout the province.

As part of this study we are inviting nurse managers throughout BC to participate in focus groups or one-on-one interviews. More specifically, you are being invited to participate in this study because your experiences as a nurse manager in BC make you an expert on the topics we are interested in.

This study is also part of Janine Stevenson's Master of Science in Nursing thesis project. Focus groups will be lead by Janine and her supervisor Dr. Vicky Bungay, a professor at the UBC School of Nursing and will be conducted in person or by conference call. The groups will last no more than 30-60 minutes, will include groups of 4-6 nurse managers and will occur at a time of mutual convenience. The questions will focus on health units' current workload, resource availability, the benefits and challenges of certification, as well as your thoughts on how the certification program should be evaluated. Once we have collected and analyzed all of the data, a summary of the research findings will be available to everyone who participates and nurse manager/leader groups.

This project is funded through a grant provided by the UBC School of Nursing Office for Nursing Research and Teaching Scholarship (ORNTS).

Thank you for taking the time to learn about this project. We appreciate your input. If you have any further questions please do not hesitate to contact me.


Respectfully,



Janine Stevenson, MSN(C), BScN, RN,

APPENDIX D: Letter of Invitation to Participate

# THE UNIVERSITY OF BRITISH COLUMBIA

**School of Nursing**
T201- 2211 Wesbrook Mall
Vancouver, B.C.
Canada V6T 2B5

Tel: (604) 822-7420
Fax: (604) 822-7466

October 4, 2010

**Project Title: Certified Nursing Practice and Sexually Transmitted Infections: The Perspectives of Public Health Nurse Managers**

Dear Nurse Manager,

The provincial government recently mandated that all nurses working in STI/HIV receive certification by April 2010. We have previously collected data on public health nursing practice and certification; however, nurse managers' assessments of certification have yet to be documented. We are currently conducting focus groups with nurse managers to address this research gap. The primary aims of this study are to develop a better understanding of (a) the challenges associated with the certification process; (b) adaptations that nurse managers have to deal with the challenges of certification; (c) the benefits that have been provided through certification. Learning about your experiences with managing STI-related care will be used to inform educational and programming priorities, with the ultimate goal of enhancing the delivery of care to those client populations most affected by STI in BC. Such an understanding will also allow us to evaluate the impact of certification and continuing education programs on the delivery of STI-related care throughout the province.

As part of this study we are inviting nurse managers throughout BC to participate in focus groups. More specifically, you are being invited to participate in this study because your experiences as a nurse manager in BC make you an expert on the topics we are interested in. Your participation is entirely voluntary and confidential. This study is also part of Janine Stevenson's Master of Science in Nursing thesis project. Focus groups will be lead by Janine and her supervisor Vicky Bungay, a professor at the UBC School of Nursing and will be conducted by conference call. The groups will last no more than 30 minutes, will include 2-3 other nurse managers and will occur at a time of mutual convenience. The questions will focus on your unit's current workload, resource availability, the benefits and challenges of certification, as well as your thoughts on how

the certification program should be evaluated. Once we have collected and analyzed all of the data, a summary of the research findings will be available to you.

If you would like to participate please respond by phone or e-mail to Janine Stevenson. **By participating in the focus group, you are providing consent to participate in this study.**

**Study Contact:**
Janine Stevenson RN, BScN
Nurse Educator
STI/HIV Prevention
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This project is funded through a grant provided by the UBC School of Nursing Office for Nursing Research and Teaching Scholarship (ORNTS).

If you have any concerns about your treatment or rights as a research subject, you may phone the Research Subject Information Line in the UBC Office of Research Services at the University of British Columbia, at 604-822-8598.

Thank you for taking the time to learn about this project. We appreciate your input. If you have any further questions please do not hesitate to contact me.

Respectfully,


Vicky Bungay PhD, RN