Innovation Adoption: Lessons Learned From a "Best Place to Work" Organization

by

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A thesis submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

in

Educational Administration and Leadership

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Abstract

In a move to better meet patient needs and address health services challenges, there are global changes occurring in the fundamental way health services are provided and managed. Health systems are faced with sustainability issues, political uncertainty, fiscal constraints, and challenges of rapid technology change. During these tumultuous times, health leaders, practitioners, and researchers are working hard to improve patient outcomes, while creating opportunities for growth, efficiencies, and enhanced patient experiences. This is further complicated by advancements in technology continuously disrupting traditional business models and processes. To address the challenges faced by the health system, organizations are exploring ways to become more agile and adaptive. An emerging focus of health leaders is investment in innovation for building organizational capacity to influence sustainability and growth for the future. Congruent with initiatives focused on innovation adoption, are advancement of workers' skills and competencies to manage the rapid pace of technology change and to translate new evidence and knowledge to their practice for the benefit of quality patient care.

Although leadership is seen as critical in shaping organizational cultures that successfully adopt innovation, there are few studies that explore the perceptions of health leaders to understand what they have learned from implementing innovation in clinical practice settings. In this study, I used a hermeneutic phenomenological approach to gain an understanding from a purposive sample of ten health leaders, of their experiences and perceptions of working with innovation in an acute care hospital. Thematic analysis of the data suggested nurturing a person-centred culture improves high quality, safe, and compassionate healthcare. To achieve support for innovation, a greater emphasis on creating positive, well-trained, workplaces that facilitate

job satisfaction and production is warranted. Recommendations for further research include exploration of leadership development of person-centred competencies, relational nuances between leaders and workers, and defined evaluation of innovation impact on care provision and positive work environments in clinical practice settings.

Acknowledgements

I would like to thank my dissertation supervisor, Dr. José da Costa, for his expertise, guidance, and patience throughout the process of completing my dissertation. I would also like to thank my committee members, Dr. Katy Campbell and Dr. Darryl Hunter, for their enthusiasm, suggestions, and encouragement. I owe them my deepest gratitude for without their continuous support and wisdom this research would not have been possible.

The completion of my dissertation was a journey of learning and self-discovery. I am fortunate to have many wonderful friends and colleagues who cheered me on and provided me with an invaluable source of motivation, laughter, and perspective. Finally, I am extremely grateful to have the love and support of my family. Words cannot express the remarkable good fortunate I have in knowing, loving, and being cared for by so many exceptional people.

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Chapter One - The Nature of the Study

Background and Topic

Modern healthcare is complex and dynamic. The speed of change is unrelenting. Today's health professional is required to be nimble and well acquainted with working in difficult and ever-changing healthcare environments. To meet the demands and needs of patient care in this type of setting, teamwork has become not only essential but also routine. Collaboration between health professionals is standard practice in the delivery of high quality, safe, and compassionate healthcare. Interprofessional teams promote a commitment of professional accountability among members that encourage individuals to demonstrate evidence of currency in their learning, their knowledge, and their actions, which ultimately impact patient outcomes. These teams contribute to organization capacity building by knowledge mobilization (KM) and translation of evidence into practice between communities of professional practitioners (Kislov, Waterman, Harvey & Boaden, 2014). In turn, the development of organizational learning practices and initiatives for innovation, improvement, and adaptation serves to strengthen organizational capabilities. Capacity building is particularly critical in negotiating health innovations that disrupt and transform organizations. Often creating new models of care that may expand or change the scope of traditional organizational care delivery.

Despite the integral role lifelong learning has to professional competence, clinical outcomes, and organizational capacity building there are increasing tensions as new information inundates the system. Healthcare organizations are struggling with the volume of scientific evidence and their capacity to resource both quality continuing professional development (CPD) for workers (to keep them informed of best practice standards) and the provision of appropriate and quality patient care (Patton, Higgs, & Smith, 2013). Furthermore, organizations are faced

with a shift in service delivery to a more integrative care system that necessitates standardized protocols and effective communication among members, as roles and responsibilities are modified, and new alliances and teams are created (World Health Organization (WHO), 2015). Maintaining standards and currency of care protocols requires continuous professional development (CPD) so that practitioners across the continuum of care, as well as those working in small groups and large communities of practice, are communicating, sharing, and mobilizing knowledge. A review of the literature about healthcare reform identifies key elements, such as an emphasis on technology innovations, as essential drivers for disrupting and reshaping care delivery (Zadvinskis, Chipps & Yen, 2014; Buntin, Burke, Hoaglin & Blumenthal, 2011; Canada Health Infoway, 2019). However, there is a paucity of information related to the best strategies to achieve system integration of providing new ways of care provision, particularly those linked with health innovation implementation, and their associated outcomes on practice (Becker et al., 2014; Fischer et al., 2003). This research looked to close this gap by exploring the perceptions of health leaders working with innovation implementation in practice settings. This research focused on three elements of reform as it explored health innovation implementation in practice. These are: (1) the information and systems that embed new evidence into practice; (2) continuous educational approaches for workers that are integrated in care delivery; (3) networks and widespread availability and support for use of new evidence (Olsen, Aisner, & McGinnis, 2007).

Purpose of Study

The extant literature (Guyatt, Cook, & Haynes, 2004: Kislov, et al., 2014; Health Quality Council of Alberta (HQCA), 2019) suggests that using the best scientific evidence available to support decision-making has the potential to ensure Albertans have the best quality of healthcare.

However, the proliferation of scientific research has created an abundance of new information to be translated into care delivery. Lost opportunity of effective care, costly waste of resources, and misuse or overuse of care are all outcomes of a healthcare system's failure to realize the benefits of innovation adoption and implementation (Atun, 2012). The complexity of the healthcare system underscores "the estimate that nearly 50% or more of attempts to implement major technological and administrative changes end in failure" (Klein & Knight, 2005, p. 244). This dismal result sheds light on the need for sustained implementation research for a better understanding of innovation diffusion in healthcare.

This interpretative study aimed to gather practical understanding from healthcare leaders about building and sharing knowledge in acute care hospitals for innovation adoption and implementation. The purpose of this interview-based study was to: (a) explore healthcare leaders' perceptions of workplace capacity building of implementing innovations in an acute care setting and (b) to gain an understanding of the actions that encourage, embed and integrate an infrastructure for learning, professional development of workers, and performance for innovation adoption in an organization. The exploration of ways that healthcare leaders create learning environments to build and share knowledge can shed light on how they support workers in their adoption of health innovations such as new information, technology, and tools for clinical practices; as well, to gain insights into leadership practices that create a culture of quality care delivery. This study is timely and significant, as the province of Alberta is currently engaged in a roll-out of a significant province wide new system implementation, called Connect Care, which is an advanced clinical information system and technology platform (Alberta Health Services, 2019). This new system will innovate how information is shared and how health data is collected, accessed, used, disclosed and exchanged between patients, practitioners,

administrators and policy makers across the province. Insights gained in this study may help support policy and practice decisions, not only for present health innovations but also for those of the future.

Statement of the Problem

This study explored health leaders' perceptions of innovation implementation in Alberta's healthcare system. More specifically, the focus was clinical practice settings within acute care hospitals that are part of the larger provincial health system.

This interpretative qualitative study interviewed leaders to gain rich descriptions of their personal experiences of working with innovation diffusion within their organization.

Research Context

The research study is situated within a health organization that was recognized as one of Alberta's Top 70 Employers in 2018, and by Waterstone Human Capital in 2014, as one of Canada's 10 Most Admired Corporate Cultures in the Broader Public Sector category for its holistic and values-based approach to delivering health care across the province (Covenant Health, 2019). Covenant Health is Canada's largest Catholic health organization, operating 17 hospitals, continuing care centres, and hospices across Alberta (Covenant Health, 2019). Covenant Health has gained national and international recognition for their organizational leadership, corporate ethics and corporate culture (Covenant Health, 2018). These accolades made it a natural choice to explore the influence of organizational culture, leadership, and workplace learning on innovation adoption and implementation in clinical spaces. Advancements in health innovations are advocated as ways for health organizations to be competitive and to address challenges facing health delivery and to better meet patient needs (HQCA, 2019). As a response to the lack of information about best strategies to achieve system integration of

innovative activities and the translation of knowledge from these activities into practice, innovation adoption and implementation was chosen as the topic of this study. Hospitals are research intensive centres that synthesize large amounts of data daily to facilitate evidence-informed care. They are major consumers of innovation and the impact of effective innovation implementation has the potential to be significant for better care provisioning and to the health of our communities (Ratnapalan & Uleryk, 2014).

Researcher Position

Global transition to knowledge societies and economies are creating new sets of skills, competencies and expertise that individuals require to succeed in education, work and life in the modern world. There is widespread agreement that digital capacity and literacy are primary foundations for learners in meeting knowledge era competencies (Scott, 2015). As well, most of today's learners have grown up with or been born into digital technologies and expect to use them in their learning (Prensky, 2010). In the health professions, there is recognition of the importance of technology, which is often a component of health innovations, and its role in the workplace. In the field of nursing, as an example, the integration of information and communication technologies and health informatics are basic competencies of all registered nurses and are integral to their practice (College and Association of Registered Nurses of Alberta (CARNA), 2019; Canadian Nurses Association (CNA), 2017a). With an abundance of advanced technologies and tools, the assumption is that the transfer of new ideas with the translation of evidence to practice is seamless. However, the reality is this is often not the case (Bruce, Hughes & Somerville, 2012; Mackey & Bassendowski, 2017). A key aspect of realizing the potential of health innovations, such as new information and technology, is support for individuals to engage with them in workplace contexts (Bruce et al., 2012).

The research questions evolved through my experiences in working with students in various clinical settings. The clinical setting is a dynamic information intensive environment. Learners are challenged to keep up with a rapid pace of change, increase in client acuity, inconsistency in resources and resource delivery, and diversity in delivery models of practice. As a nurse educator, I have witnessed firsthand the tension and conflict that builds in the clinical area due to a lack of timely access to data, lack of support for new initiatives, and the creation of misconceptions due to misinformation, such as dated policies that conflict with new initiatives. These factors contributed to my research interest of exploring how health innovations are accepted, supported, and embedded in practitioner practice for better communication, decision making, and delivery of patient care.

Researcher Assumptions

As I moved forward with my research study, I explicated my assumptions regarding my inquiry. These assumptions were: (a) providing the right information, to the right people at the right time supports better decision-making practices; (b) supportive learning environments facilitate professional development; (c) nuances within clinical settings require participants, policy makers, and other relevant stakeholders from the setting to work together to solve issues; and (d) culture and organizational influences are best understood by those who work there on a day to day basis. The implementation of health innovations in daily practice is far from simple and raises questions about the process and the benefits that an organization may realize from supporting a culture of innovation.

The assumptions I hold are influenced by my beliefs and my knowledge claims. I believe realities are socially constructed and understood within the social contexts in which people live, work, and play. Realities of society refer to the subjective experiences of everyday life, brought

about by the interaction of people with the social world (Denzin & Lincoln, 2011). In the social world, there are multiple realities, and all are meaningful. Thus, a phenomenon is best understood from the perspective of those who have lived experience with it and live in its social context.

Research Questions

The overarching aim of the study was to explore health leaders' perceptions of health innovation implementation in clinical practice, within their organization.

The primary research questions for this study were:

1. What have health leaders learned from introducing health innovations in practice?
2. What have health leaders learned about the workplace and how does it influence the acceptance, adoption, and integration of new health innovations?
3. What benefits or efficiencies are realized with the implementation of health innovations, and how are they measured?

Contribution of the Study

By answering these questions this study contributes to the literature on KM, CPD and workplace learning in several ways. First, socio-cultural influences that contribute to developing organizational learning are identified. Second, an analysis of these factors is provided. Third, based on the insights with respect to the impact these factors have on interactions of workers and their acceptance, knowledge, and integration of innovative ways of providing care through using new information and tools in practice, helps provide answers to questions such as "How to facilitate continuous learning systems in healthcare organizations for improved efficiencies and patient outcomes?" "What are the best strategies to engage healthcare workers in CPD activities in the workplace?" "How does workplace learning generate organizational capacity?" and "What

leadership is needed for cultures of high-quality care?" Finally, this research contributes to the health care management literature by filling a gap in the importance of understanding organizational socio-cultural influences on distributed learning and sharing of knowledge in the acceptance and integration of innovative care delivery practices.

Delimitations of the Study

The emphasis on a qualitative method design is helpful for understanding phenomena deeply and in detail. I chose this type of study to achieve a deep understanding of my topic from those who know it well by working with it in their daily practice. There were delimitations to this study that relate to my objectives, study design, and time and fiscal restraints. This study focused on health leaders who had experience with innovation implementation; as direct implementors, decision makers, or policy influencers. This objective led me to include only leaders at the board, senior executive level, mid executive level, and clinical practice level in the study. The inclusion criteria produced a small sample size. I knew I had time and fiscal restraints, so semi-structured interviews were chosen as a study tool. The study took place at an exemplar organization, which was a delimitation of the study, as was choosing a single health agency.

List of Abbreviations

Abbreviation	Explanation
CARNA	College and association of Registered Nurses of Alberta
CoP	Community of Practice
CNA	Canadian Nurses Association
CPD	Continuous Professional Development
EBP	Evidence-based practice

HQCA	Health Quality Council of Alberta
KM	Knowledge mobilization
VUCA	Volatile, uncertain, complex, and ambiguous

Definitions

The following definitions apply within the context of this study:

Community of practice (CoP): Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly (Lave &Wenger, 1991).

Continuous professional development: A professional's ability to keep current with developments in one's field as well as maintaining personal knowledge, skills and competencies (Gumus, Borkowski, Deckard, & Martel, 2011).

Diffusion of innovation: "The process by which an innovation is communicated through certain channels over time among the members of a social system" (Rogers, 2003, p.5).

Evidence – based practice: is defined as the "conscientious, explicit and judicious use of current best evidence in making decisions about the care of the individual patient. It means integrating individual clinical expertise with the best available external clinical evidence from systematic research" (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996, p.71).

Health innovation: Health innovation is defined as the development and delivery of new or improved health policies, systems, products and technologies, and services and delivery methods that improve people's health (World Health Organization, 2018).

Innovation: An innovation is an idea, practice, or technology that is perceived as new by the user (Helfrich, Weiner, McKinney, & Minasian, 2007).

Innovation adoption: is defined as "the adoption of an idea or behavior new to the organization" (Damananpour & Gopalkrishnan, 1998).

Innovation implementation: is defined as "the transition period during which [individuals] ideally become increasingly skillful, consistent, and committed in their use of an innovation. Implementation is the critical gateway between the decision to adopt the innovation and the routine use of the innovation" (Klein & Sorra, 1996, p. 1057).

Implementation science: is defined as the "scientific study of the processes used in the implementation of innovation as well as the contextual factors that affect these processes" (Peters, Tran & Adam, 2013, p.9).

Learning organization: Organizations where people continually expand their capacity to create results they truly desire (Senge, 1990, p. 3).

Organizational capacity: An organization's ability to incorporate acquired, assimilated and transformed knowledge into their operations and routines not only to refine, perfect, expand, and leverage existing routines, processes, competencies, and knowledge, but also to create new operations, competencies, and routines (Zahra & George, 2002).

Organizational culture: A pattern of basic assumptions-invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration-that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems (Schein, 2010, p.22).

Structure of the Thesis

The thesis is presented in seven chapters. In this chapter, the rationale for the study is explained and an overview of the thesis is provided. I present the context within which this study was conducted and my position and assumptions as the researcher. This is followed by the research questions and the contributions that this study seeks to make. Finally, a list of commonly used definitions in the thesis is provided.

Chapter two presents a review of the literature from the field of study. It includes an overview of the chosen conceptual framework used in the study and further explanation of key constructs that are applicable to innovation implementation in practice. Chapter three presents the philosophical assumptions underlying this research, as well as an introduction of the research strategy and the methods applied.

In chapters four through six, I present the interpretation of my analysis of findings. Chapter four presents the findings and discussion of research question one: health leaders' understandings of introducing innovation in practice. Chapter five represents the findings and discussion of research question two: health leaders' understandings of the acceptance, adoption, and integration of health innovations. Chapter six reflects the findings and discussion of research question three: health leaders' understandings of the benefits of innovation. Finally, in chapter seven, I draw together the study findings. I present a summary, implications for practice, reflections and compelling questions, and recommendations for future research.

Chapter Two – Literature Review

During my career I have held many roles. I have been a student, a health practitioner, administrator, leader, and educator; often with roles and their responsibilities overlapping. Throughout the years, I have been exposed to many different work environments, leaders, and leadership styles. My desire to embark on doctoral studies is influenced by my interest in leadership and my aim to build on my previous knowledge and experiences and is why I chose the specialization educational administration and leadership as my program of study. This literature review provides the foundation and theoretical knowledge for my study. It explores innovation implementation in clinical practice and considers the background constructs that have helped shape it, namely, culture, leadership, and continuous learning within organizations. The chapter also critically reviews the literature related to these constructs and uses the conceptual framework as a heuristic to guide the review in three segments: evidence, context, and facilitation.

Evidence

Pragmatism of Clinical Practice

Innovative health technologies are modernisms that are disruptive. They displace and alter the way we think about practice and work processes in healthcare, creating new ways to provide care. In this sense, the use and design of innovation is embedded in the socio-cultural context of a healthcare organization and affects how people experience the innovation. To take full advantage of new health innovations, individuals and organizations are challenging the status quo in healthcare delivery and specifically are examining how people acquire and use new information and then transform it into knowledge in their practice (Patton et al., 2013). This presents an opportune time to explore how knowledge is constructed by today's learners, where a

shift of emphasis is being placed on information literacy and what learners do with knowledge rather than what units of knowledge they have (Blackley & Sheffield, 2015).

Paradigmatic worldviews assist researchers in attaining greater clarity about the nature of the phenomenon to be explored, the questions posed and the ways they answer questions and communicate findings (Creswell, 2007). Scholars have clearly identified a continuum of paradigmatic worldviews where an understanding of constructivism and post-positivism are distinguished paradigms for social research (Guba, 1990). Constructivists claim that truth is relative based on one's experiences and perspective. A reality that is built on the premise that knowledge is socially constructed (Searle, 1995). In healthcare, the multifariousness of practice requires practitioners to weave theory and action for knowledge creation. This is evident in nursing. Nursing practice is often referred to as both an art and a science. This suggests a complementary verses binary meaning that supports nurses having practice-based knowledge, gained through the actions of "doing" in their workplace (Schon, 1983). However, nurses are more than just technicians who apply or act on scientific findings indiscriminately. They are critical thinkers and deliberators who gain expertise and intuition from their nursing actions and interactions with others and meld it with their knowledge of nursing research (Benner, 1984).

Morgan (2014) challenges Guba & Lincoln's (1994) correlations between paradigm and philosophical assumptions for being unfair by distorting positions, such as the foregrounding of ontology in their top-down approach. He argues that the assignment of an a priori epistemological status to knowledge from research over other ways of knowing, such as "doing", places potential limits on knowledge creation (Morgan, 2014). Similarly, an argument is made that philosophical assumptions about knowledge create a methodological dichotomy between qualitative and quantitative methods (Mesel, 2013). As previously mentioned, philosophical

assumptions underpin the top-down research chain (i.e. ontology/epistemology/axiology/methodology/methods) that supports a cohesive knowledge claim according to Guba & Lincoln (1994). Dichotomies create opposing poles distinguished by exclusion and inclusion criteria such as the belief in a constructed reality (qualitative) verse belief in a single reality (quantitative). However, the difficulty is in exacting definitive characteristics in the wide range of methodologies to clearly establish poles. Mesel (2013) argues there are variations in each methodology that precludes fully delineated categories based on explicit exclusion and inclusion criteria. In healthcare, practitioners routinely make clinical decision using several methodologies to access and analyze patient data such as conducting patient interviews, studying diagnostics, and evaluating therapies. The realities of clinical practice often create problems practitioners solve by developing questions in the moment in an attempt to address the problem at hand. These practice-based or front-line questions guide an inquiry rather than top level thinking of philosophical assumptions. Thus, Morgan's (2014) proposition to move beyond a philosophy of knowledge approach toward philosophical pragmatism as a useful system for understanding social research resonates with my research study.

A pragmatic approach supports experiences in clinical practice where often a problem is defined, and questions result from attempts to provide answers to the problem. Denzin and Lincoln (2011) summarize classic pragmatism as:

> "a doctrine of meaning, a theory of truth. It rests on the argument that the meaning of an event cannot be given in advance of experience. The focus is on the consequences and meanings of an action or event in a social situation. This concern goes beyond any given methodology or any problem-solving activity" (p.81).

For Dewey (1966), experiences are context dependent. The process of inquiry comes from problem solving through reflection where the changing nature of our contexts and environments makes prior experience fallible in predicting the outcome of current action (Dewey). He argued we should consider our knowledge as hypothesis to be tested in experience (Dewey). For Dewey, of most importance are issues of warranted assertions that have consequences for subsequent existence (DeForge & Shaw, 2012). Dewey sought to replace the older emphasis on ontology and epistemology with a concentration on inquiries about the nature of human experience. His systematic approach to inquiry has five steps:

1. Recognizing a situation as problematic;
2. Considering the difference, it makes to define the problem one way rather than another;
3. Developing a possible line of action as a response to a problem;
4. Evaluating potential actions in terms of their likely consequences;
5. Taking actions that are felt likely to address the problematic situation (Dewey,1966).

Evidence-Based Practice

In healthcare, a pragmatic approach underpins problem solving in practice settings where the relevance of the specific context may be part of the problem at hand. Practitioners work together toward a common goal of resolving the problem to improve patient care outcomes by critically appraising evidence for its validity and usefulness in caring for the patient. Globally, evidence - based practice (EBP) has become a driving force behind initiatives focused on quality patient care. Most notably, a roundtable convened by the Institute of Medicine of health experts, in the United States, concluded the quality of healthcare is enhanced through EBP and recommended all clinical decisions should be based on this approach, and gave the target of at least 90% of clinical decision should be evidence -based by 2020 (Olsen et al, 2007). EBP is the

integration of clinical expertise, which is the sum of a clinician's skill set, experience, and continuous learning, patient values, and the best evidence, including technologies and innovations, into the decision-making process for patient care (Sackett et al., 1996). There are added advantages of practicing evidence-based healthcare for practitioners, clinical teams, and patients. These include practitioners are enabled to upgrade their knowledge base routinely, have increased confidence in clinical decisions, and make best use of resources; clinical teams have a useful framework for group problem solving and teaching; and patients have better communication with practitioners through understanding rationale behind clinical decisions (Mackey & Bassendowski, 2017). However, although it seems straightforward that effective teams working together and using the best innovations and evidence strengthens the competitive advantage of an organization; the reality is that implementation and diffusion of new ways of doing is complex and messy in healthcare with few innovations achieving full integration into everyday practice (Stetler, Darnschroder, Helfrich & Hagedorn, 2011).

Implementation Science

The field of implementation science explores the various aspects of innovation adoption and diffusion. Everett Rogers (2003) originated the theory of innovation diffusion wherein he recognized the fact that innovation is a progressive process. His work focused on micro-level diffusion of innovations, targeting individuals and groups, as the source to be persuaded to change their traditional way of doing. His work drew attention to the organizational value of communication and the role of communication efforts in empowering people (Zerfass & Viertmann, 2016). He identified five stages of the innovation process: invention, development, production, market introduction, and diffusion. Diffusion, he defines as "…the process by which an innovation is communicated through certain channels over time among the members of a

social system" (Rogers, 2003, p.5). Innovation adoption is the decision to use an innovation. Innovation implementation is "the transition period during which [individuals] ideally become increasingly skillful, consistent, and committed in their use of an innovation. Implementation is the critical gateway between the decision to adopt the innovation and the routine use of the innovation" (Klein & Sorra, 1996, p. 1057). Innovation adoption is often considered to be subsumed within implementation; however, both need to be successful for effective diffusion (Hall, 2005).

The relatively new field of implementation science encompasses all aspects of innovation adoption and implementation research that occurs in clinical, community, and policy contexts. The World Health Organization broadly describes implementation science as the "scientific study of the processes used in the implementation of innovation as well as the contextual factors that affect these processes" (Peters et al., 2013, p.9). There are numerous models of innovation adoption and implementation in the literature that focus on varied aspects of the innovation process. For example, Damanpour and Schneider (2008) focus on the role of innovation characteristics. Other researchers argue for the importance of innovation fit with an organization's values (Klein & Sorra, 1996, Jacobs et al., 2015; Helfrich et al., 2007). While other models suggest individual characteristics are central to innovation (Frambach & Schillewaert, 2002; Gallivan, 2001; Rogers, 2003). Innovation adoption and diffusion has been the subject of many different research approaches that emphasize different factors. The knowledge on effective implementation is growing but still limited, and there lacks a unifying framework for best evidence-based implementation (Grol, Wensing, Eccles & Davis, 2013). However, there are common core constructs across many of the models of innovation implementation (Wisdom, Chor, Hoagwood, & Horwitz, 2014). This study focuses on one of

those common core concepts, specifically the concept of context, and the sociocultural influences on innovation diffusion.

The Promoting Action on Research Implementation in Health Services (PARIHS) is a recognized patient-centred framework for the implementation of evidence into practice with context being a central element (Rycroft – Malone, 2004). Use of this model seeks to build on previous work that make explicit the complex nature of implementing innovation in healthcare. Moreover, this study targets clinical practice as its context, to highlight the lag in this specific setting and to help work toward minimizing its gap.

Conceptual Framework: the PARIHS Framework

The PARIHS framework portrays successful innovation implementation as the interaction of three core elements: evidence, context and facilitation (Rycroft-Malone, 2004). This framework was chosen because it represents the complexity of innovation implementation in clinical practice. *Evidence* in evidence-based practice is generally defined as decision-making processes that incorporate the best research evidence and the best clinical experience, which would include the latest technologies and health innovations, into routine practice. *Context* refers to the environment or setting in which the innovation is being implemented or where people receive health care services (Kitson, Harvey, & McCormack, 1998). *Facilitation* affects the context in which change occurs and also the practitioners implementing the change. It is the process of enabling the implementation of innovation into practice (Kitson et al., 2008). In the PARIHS framework each of the core elements can be assessed for whether its status is weak ("low" rating) or strong ("high" rating) and thus can have a negative or positive influence on implementation (Rycroft-Malone, 2004). Each of the three core elements also have sub-elements for further expression (See Table 1). Successful implementation of an innovation into practice is

more likely when the core elements and their sub-elements are rated high on a continuum of low to high (Rycroft-Malone, 2004). More specifically, proponents of the PARIHS framework suggest contexts that have transformational leaders, features of learning organizations, and appropriate monitoring, evaluative, and feedback mechanisms are more successful than contexts without these features (Kitson et al., 2008).

Table 1. Elements of the PARIHS framework

Evidence	**Context**	**Facilitation**
Research • Needs to be translated and adapted so it makes sense in the setting	Culture • Relevance of innovation to organization Demonstrated • Good fit to organizational structures and processes	Purpose • Provide ongoing support for knowledge translation • Facilitation continuum that incorporates analysis of change
Clinical experience • Practitioner tactic knowledge needs to be made explicit	Leadership • Adequate resources available and appropriately allocated	Roles • Opportunity for experiential learning • Mentoring and coaching
Local data/information	Evaluation	Skills and attributes

• Knowledge of organizational culture, local data, and shared histories need to be considered	• Multidisciplinary focus of implementation strategies • Targeted and managed resources	• Facilitators have appropriate skills, knowledge and attitude • Facilitator considers wider organizational and political factors in the local situation

Adapted from Rycroft-Malone (2004). The PARIHS framework- a framework for guiding the implementation of evidence-based practice. *Journal of Nursing Quality,* 19(4), 297-30.

Healthcare organizations in Canada are significant drivers of innovation. Our large tertiary hospitals have mandates to develop and test new treatments, technologies, and procedures that address our most pressing health challenges. However, the sheer number of valuable new procedures, processes, and technologies place an enormous pressure on health leaders to leverage innovations that can contribute to better quality of health care for patients. To better understand health innovations implementation and diffusion it makes sense to appreciate the context and understand the role that contextual factors may have on the innovation implementation process (Rycroft-Malone et al., 2004). The PARIHS framework suggests successful implementation occurs when evidence is robust and supported by practitioners, the context is receptive, and where implementation processes are appropriately facilitated (Rycroft-Malone et al., 2004). There have been numerous provincial reports that demonstrate the need for greater investment in health facility maintenance, upgrades, and new infrastructure to address

quality patient care, staff and patient safety, and initiatives to improve operations (Government of Alberta, 2018; Government of Alberta, 2010). The Fraser Institute, a well-recognized non-partisan think tank that produces research about government actions and policies about healthcare that affect Canadians' quality of life, identified Canada overall lags other developed nation in the size of its medical technology inventory and that inventory of medical technologies is less sophisticated than might be considered optimal (Esmail & Wrona, 2008). In the following section, I will discuss context and the sub-elements of organizational culture, including the workplace and the spaces created for learning, leadership, and evaluation and their relevance in the process of implementing health innovations into clinical practices within a hospital.

Context

Organizational Culture

The concept of culture is central to organizations. Understanding how culture is formed and strengthened throughout an organization is a key element in large system transformation (Lukas et al., 2007). Schein (2010) interprets culture as socially constructed; created by our interactions with others; provides a foundation for social order or the rules and norms that we live by; and has significance for the growth and competitive advantage of companies. Schein's (2010) multi-layered concept identifies artifacts, espoused values, and assumptions as three fundamental cultural elements that define organizations and their culture. Culture manifests itself in its artifacts, which are visible evidences of the organization, such as language, technology, policies, and organizational structures; and espoused values, which are the organization's mission, philosophy, goals and strategies that the leadership team advocates. The content or essence of an organization's culture is its shared consensus of reality. Reality is defined as a pattern of shared assumptions learned by a group as it problem solves (Schein, 2010).

Culture is thus the interplay of structure, reward systems, the people, information systems, leadership, and the processes by which the organization operates (Triolo, 2012). However, organizational cultures exist within contexts. They operate as macrocultures, subcultures and microcultures (Schein, 2010). Davis and Mannion (2013) note the various definitions of culture contain the common belief of culture consisting of values, beliefs, and assumptions shared by occupational groups. In healthcare, the larger external macro context of the health system influences internal operations and interplays with the subcultures, such as health care practitioners. Subcultures share many of the assumptions of the larger organization but also have unique assumptions based on their own experiences (Schein, 2010). For example, physicians will have unique assumptions based on their field of expertise and role, as will nurses. Microcultures evolve within small groups like communities of practice that share common tasks and histories, such as learning through experimentation with new technology.

Accepting group norms and expectations for behaviour helps shape how individuals identify and form relationships with groups and the broader organization (Gioia, Hamiltion & Patvardhan, 2014; Hornsey, 2008). In healthcare, workers may change how they identify based on work related actions, interconnectedness, context, and perceived work satisfaction (Cain, Frazer, & Kilaberia, 2019). Members negotiate the social construction of identity through shared meaning and the influence this understanding has on their notion of self- concept (Corley et al., 2006). When individuals fit in with the culture, they align themselves with the normative processes and integrate their identity with the organization (Goldberg, Srivastava, Manian, Monroe & Potts, 2016). From an organizational perspective, identity may be used to explicitly articulate who the organization is and what it represents, creating an organizational brand that is

a vital part of corporate strategy for many of today's organizations (Gioia, et al., 2010; Frandsen, 2017).

Cultures and collectives developed in healthcare organizations tend to preserve their distinctive character, both internally and externally (Carlstrom & Ekman, 2012). Carlstrom and Ekman argue "the internal distinctive character consists of the organization's culture and the external distinctive character of its image" (p.177). When implementing innovation, long term success is brought about by aligning culture, strategy, structure, and people (Cummings, Fraser, & Tarlier, 2003). Organizational culture reflects an organization's decision-making, behavioral, and social norms, which influence the organization in various ways, including how it supports or resists change.

Organizations that identify as learning organizations support continuous learning and create shared experiences and shared explanations about reality (Senge, 1990). A review of the literature suggest that organizational learning and its output organizational knowledge plays a key role in enabling organizations to build capacity, achieve flexibility in responding to challenges, and enhance innovation performance (Damanpour et al., 2009; Jimenez-Jimenez & Sanz-Valle, 2011). This helps bring people together and builds shared mental models of innovation across the organization that are based on assumptions that have been tested in action, reflected upon, evaluated, and then assimilated into practice (Kolb, 1984). Thus, shared learning in the workplace, socially validates the values and assumptions of groups and assists in building organizational capacity and new ways of operating for organizations.

Work-Related Learning

In Canada, career development involves a lifelong process of learning and is supported by learning-and-work policy that stresses the value of a knowledge-based economy, technology, skill development and a learning society (Grace, 2007). The Council of Ministers of Education, Canada (CMEC) is the national voice for educational perspectives. It defines lifelong learning as

> "The development of human potential through continuously supportive processes which stimulates and empowers individuals to acquire all the knowledge, skills, values, attitudes, and understanding they will require throughout their lifetime as individuals, citizens, and workers" (CMEC, 2005, p.7).

Adult learning is considered as a subsection of lifelong learning in that it applies to learning only in the adult years. CMEC (2005) defines it as:

> "The process or the result of adults gaining knowledge and expertise through practice, instruction or experience. Adult learning may be intentional or non-intentional, may take place in a variety of settings, at home, in educational institutions, at work, or in the community" (p. 7).

Learning processes in the workplace have emerged from adult education concepts. More current definitions of adult learning from the literature also include the interactions between workers and their environment while engaged in training or learning programs (Fenwick, 2009). Further delineation of adult learning separates formal and non-formal learning practices. Formal learning is typically aligned within educational institutions while non-formal learning is that which takes place in daily activities (Bailey, 2015). The literature also often separates learning at either an individual level as employee agency and identity or at a collective level through organizational

work and social interaction or as a combination of these two (Billett & Sommerville, 2004; Li, D'Souza & Du, 2011). Agency speaks to individuals' capacity to exercise control over their own thought processes, motivation and actions (Bandura, 1986). Individuals who perceive themselves as having a meaningful role and voice in an organization are more likely to be engaged in organizational life and adopt new ways of doing or new technologies in their work practices. The complexity of healthcare workplaces focuses on collaborative learning strategies and supports a mixture of formal and non-formal learning experiences to best equip both individual practitioners and healthcare teams in the context of providing safe and competent patient care (Billett, 2002).

Change, the speed at which it occurs and competitiveness in the labour market influences professionals' abilities to maintain their knowledge, skills, and competency. Continuous professional development is considered to be a professional responsibility and involves keeping current with developments in one's field as well as keeping personal knowledge, skills and competencies current (Gumus, Borkowski, Deckard, & Martel, 2011). The literature supports that due to dynamic work conditions the greatest amount of professional learning will take place during practitioner working lives, not during their pre-service education (Haan & Caputo, 2012). A pervasive thought is those professionals who do not actively keep themselves up to date, will not only stagnate but will simply be left behind (Bailey, 2015). In healthcare, organizations are large, messy, and multifaceted, which creates uncertainty and challenges, which encumbers how both practitioners and organizations ensure people have the requisite skills and capacity to adapt and respond to change (Kislov et al., 2014). However, the commitment of a health system to its training and quality professional development activities of workers is seen as essential to improving and sustaining system adaption and improvement in organizations (Davis & Rayburm, 2016).

Across the globe, countries are transforming health systems focused on improvement,

sustainability, and best practice changes. Person-centred care and the design of care around what matters most to people is recognized as the best path to health care improvement (Institute for Healthcare Improvement (IHI), 2019; WHO, 2007). Person-centred care models focus on care that incorporates patient participation and involvement, collaboration between patient and the healthcare team, respect for patient needs and preferences, and the continuity and comprehensiveness of care across care settings and contexts (Kitson, Marshall, Bassett, & Zeitz, 2012; McCormach & McCance, 2006; Sheikh, Ransom, & Gilson, 2014). Health care organizations provide the context in which health practitioners perform their work and are redesigning their services and how they function to build individual competence and organizational capacity for delivering patient-centred health care (WHO, 2007). High quality health care requires the investment in health professional education and development that promotes expert practitioners sharing knowledge, implementing best evidence, and collaborating to respond effectively and holistically to patient care needs (IHI, 2019).

The literature recognizes learning in the workplace as a crucial component of professional practice development (Bauer & Mulder, 2007; Gamrat, Zimmerman, Dudek & Peck, 2014). The relational interdependence of social and contextual dimensions characterizes situated learning practices whereby workers negotiate their activities of socio-cultural practice with workplace roles, processes, knowledge and engagement (Billett, 2002). In a simplified sense, situated learning is authentic learning that builds on formal knowledge, transforms it, and provides opportunity for application. Billett (2002) cautions that workplace learning also entails negotiation of learning and practice networks, communities of practice, and power relations which can affect an organization's learning culture and create conflict. Interpersonal stress and conflict in the workplace often result when there is confusion in one's roles and responsibilities, perceived lack of support, and

exhaustion, which diminish an individual's capacity to learn and to adopt new ways of doing (Logan, 2016; Toussaint et al., 2018).

Communities of Practice (CoP)

Becoming a learning organization is a precondition for person-centred health services (Iles, 2003). Contemporary health services continue to evolve from a traditional, task-orientated, medical culture of care to one that is person-centred. There is growing literature that supports person-centredness approaches that attend to the person behind the patient label and facilitate both patients and care providers to bring their knowledge, preferences, and capabilities into decision-making and care planning (Mead & Power, 2005: McCormack, Karlsson, Dewing & Lerdal, 2010; Naldemirci et al., 2017). Being person-centred implies recognition, respect, and trust of persons (Kitwood, 1997), which fosters a culture of continual learning and development of resources and capacities of persons (Morgan & Yoder, 2012).

Dewey (1938) in his seminal work laid the foundation for contextual workplace learning as he stressed the importance of contact with the real world as part of a progressive education. For Dewey, education is based on a social need, providing tools for individuals to grow, live and contribute to society. Active participation in natural and social settings provides quality learning experiences, whereby the individual reacts to, learns from, and builds on experiences (Dewey, 1938). Likewise, Vygotsky's (1978) social-cultural theory stresses human cognition and learning are social and cultural rather than individual phenomenon. Social behaviour is not performed by an individual in a vacuum rather there is reciprocity between the individual and the social context and the role of the more knowledgeable other in facilitating learning (Eun, 2008). Lave and Wenger's (1991) pioneering communities of practice (CoP) model viewed learning as an integral part of social life in the context of authentic practice that involves interaction with people,

equipment, environment, and tasks to be completed. Wenger (2000) further explicated this model in later work by tracing the link between situated practice and learning/knowing to three dimensions of community: mutual engagement, sense of joint enterprise, and a shared repertoire of communal resources (Amin & Roberts, 2008). Communities are thus characterized as sources of learning and knowing based on mutual relationships, the exchange and generation of knowledge and common practices, development of a sense of place, purpose, common identity, and resolution of differences (Zboralski, 2009). From a CoP perspective, traditional individualistic notions of learning are replaced in favour of a broader perspective that views learning enacted in interprofessional teamwork, collaboration and their contexts (McMurtry, Rohse & Kilgour, 2016).

In healthcare, teamwork and building communities of practice have long been considered instrumental to good care delivery (Bleakley, 2013; Mayo & Woolley, 2016). As a result, health professions education is commonly informed by socio-cultural theories and their relational and contextual understandings (Fenwick, 2009; Seibert, 2015). Concepts that are characteristic to many formalized workplace teams differ slightly in CoPs. Wenger, McDermott, and Synder (2002) suggest that CoPs have unique nuances that differentiate them from other intra-organizational networks and teams. Firstly, CoP are informal, self-organizing, and have flexible boundaries. Members come together around a common interest of learning and sharing knowledge, such as how to integrate mobile devices into practice, and may participate in different ways and to different degrees. Secondly, the lifecycle is determined by its members and not by the completion of a task or by institutional timelines (Wenger, 2000).

It is suggested that advancements in health innovations have the potential to reform and revolutionize healthcare delivery (Becker et al., 2014; Buntin et al., 2011; Canada Health Infoway, 2014; Health Canada, 2015). Health professionals are accustomed to working with technology in

the clinical setting as the use of computers and multiple technologies, such as electrocardiographs (ECG), magnetic resonance imaging (MRI), and electronic health records (EHR) are prevalent and routinely used in the workplace to provide patient care. However, availability and ubiquity of technology does not necessarily correlate to workers seamlessly acquiring new information, innovation and tools for clinical practice. Workers need support and guidance in learning new ways of doing and to adopt them into practice. Learning in practice environments and working in CoPs facilitates learners expanding their current knowledge and understanding by interacting with colleagues (Clarke, 2007; Fleig-Palmer & Rathert, 2015). In this way, CoPs become mechanisms for sharing knowledge and fostering innovation and change.

In a CoP knowledge is created, codified, and shared among community members and applied to practice. The idea of distributed cognition is interwoven in CoPs. The concept is that no one person or device is in possession of all the information to complete a task but rather knowledge is distributed among a variety of people and devices (Friberger & Falkman, 2013). CoPs are groups of people who share a common concern, problem or passion about a topic, such as mobile health, and who interact to deepen their knowledge and expertise in the topic and form an identity as *mobile health practitioners*. In this sense, relationships are essential for learning. It is through social interaction that participants become informally bound by the value and meaning they find in learning together (Wenger et al., 2002). Tacit knowledge emerges from the frequent interactions and discussions in which members problem solve practice-related issues (Lave & Wenger, 1991). The continuous interactions of members build a repertoire of knowledge that becomes community memory and facilitates the transfer of tacit and implicit knowledge within the community (Lave & Wenger, 1991). An assumption of CoPs is that collective learning promotes the transfer of tacit knowledge and leads to greater organizational performance (Gumus et al., 2011; Schenkel &

Teigland, 2008; Wenger et al., 2002). In the use of technology, for example, researchers have found the cognitive processes rather than the technology itself need to be the focus so that individuals collaborate and contribute to the collective memory of working with the technology in practice (Schenkel &Teigland, 2008).

The ability of people to learn collectively is seen as a source of valuable intellectual capital that can translate to a source of competitive advantage for an organization. Weaver, Dy and Rosen (2013) suggest that while individuals create knowledge, collective knowledge is accessed through CoPs. CoPs provide practitioners with a venue to share knowledge and skills with members across teams, divisions and the entire organization. This helps foster an environment that improves the effectiveness of existing practices and builds best practices (Conklin, Stolee, Harris, & Lusk, 2013). Supportive team cultures benefit change processes between different professions in healthcare settings (Firth-Cozen, 2001) and can facilitate the creation of new behaviours of members (Wenger, 2000). Arguably, sustaining complex innovations requires reflecting on action and learning in action to promote collective action of teams (Schon, 1983). To fully leverage the knowledge capital of CoPs, more organizations are attempting to cultivate and provide an environment for these informal structures so that they may thrive (Kothari, Boyko, Conklin, Stolee, & Sibbald, 2015).

For health professionals, continuous learning is developmental and essential to maintain currency of skill and knowledge. However, there are challenges to innovation adoption and implementation. One possibility is that the environment of an organization is not well suited or effective in its means to create and transfer new information and knowledge. Senge (1990) explicated the idea of learning in action when he coined the term *learning organization.* He defined learning organizations as “organizations where people continually expand their capacity to create

results they truly desire" (Senge, 1990, p. 3). Senge's ideas support the premise that organizations need to create an environment for developing the talents of its members and to help them grow and develop. This resonates with facilitating innovation uptake as before innovations are translated into professional practice, users typically go through several processes to familiarize themselves with it, get accustomed to it, and build trust in its mechanisms (Li et al., 2009). CoPs are a practical way to structure the task of managing new knowledge and providing users with supportive opportunities to acquaint and master health innovations, such as new technologies in their day-to-day practices within the learning organization. Many hospital administrators are now looking to implement CoPs as a method to gain efficiencies within their hospitals (Tight, 2015).

In CoPs members may leverage group knowledge. The literature supports the notion that groups of people are better able than individuals to manage complex problems and to deal with ever-changing demands like those faced in healthcare (Wenger et al., 2002; Ferlie, Crilly, Jashapara & Peckham, 2012). In a group context, learner's abilities to think effectively are enhanced by the views, ideas and perspectives of others, which are synthesized to build rationale for decisions (Weller, Boyd, Cumin, 2014). In some groups, collaboration is very intentional and only involves necessary members for efficiency (Kosty, Bruinooge & Cox, 2015). While other groups may vary the degree to which they embrace collaborative learning processes, which may explain why some initiatives and innovations fail to transition to practice (Rosen et al., 2018).

A successful learning organization that supports CoP bring the right people together, provide an infrastructure in which the communities can thrive, facilitate collaborative processes, and provides support and coaching to members. To implement new ways of providing patient care, such as using mobile devices to access information at the patient bedside, necessitates that practitioners use the new ways or tools and enact them in the clinical setting and make sense of

them (Mackey & Bassendowski, 2017; Zadvinskis et al., 2014). This pragmatic process of internalization/externalization translates new understandings and insights into practice. The organizational processes that support translation of knowledge include provision of training, ongoing mentoring, and supervision (Fleig-Palmer and Rathert's, 2015). Although there is an inherent desire and commitment to change in coming together in a CoP, change in care delivery needs to be negotiated and socially constructed through experiences and interactions with colleagues and peers (Wenger, 2000). New learners are considered to have more of a peripheral orientation in CoPs. They are coached through their interactions with more experienced members to develop complexity of understanding and working knowledge that also serves to further engage them in the community (Lave & Wenger, 1991). Reflection on practice is another essential component of practitioner development and is exercised as a group and communicated through shared processes in a CoP (Lave & Wenger).

Issues and critiques of CoPs.

In the attempt to solve clinical problems, health practitioners come together by being involved with one another in action, by so doing they become a CoP. The benefits of CoPs are linked to the opportunities to utilize a pragmatic approach and to draw upon knowledge from a range of sources to respond effectively to real-life problems. However, like many theories, there are areas of concern that have arisen since it was first developed.

There are several dynamics involved with people working together in groups. Some critiques of CoPs are based on concerns with the lack of attention to power relations and the relative attention paid to community as opposed to practice (Tight, 2015). Lave and Wenger (1991) focus on learning as both situated and social practice, wherein learning is a process of what they term *legitimate peripheral participation*. This is where newcomers learn from

seasoned practitioners. CoPs use supervision to promote skill development, aid in professional growth, and support practitioner confidence and competency (Lave & Wenger, 1991). Although members share a common goal and respond well to collaborative supervision, there are challenges in bringing members together in collective learning. Lave and Wenger (1991) acknowledge all individual experiences within a CoP may not be positive, and issues of power and access are inherent; yet they fail to fully explain their concerns (Tight, 2015). The extant literature has many examples of the impact of power on relationships. One example is the influence power may have in the supervision process. CoPs are comprised of a variety of practitioners who represent various health disciplines reflective of most healthcare teams. In healthcare teams, alliances may become noticeable and problematic when supervising a member's transferable skills, such as use of a new technology. Difficulty in attaining skill mastery may create a defensive culture that impacts member competency or creates power imbalances (Falander, Shafranske & Ofek, 2014). Similarly, member attitudes and experiences may also negatively impact supervision (Brooks, Patterson & McKiernan, 2012). Another dynamic to consider are social tensions and embedded power differentials that often exist within and across CoPs in an organization, such as between IT technicians and health practitioners (Hong & O, 2009). Occupational discord is often inevitable and ranges in severity when people come together and work in teams. It can detract from worker productivity and has been linked to decreased job satisfaction, absenteeism, burnout, and practice errors (Almost et al., 2016; Edmonson, Bolick, & Lee, 2017).

CoPs have been described as one of the most articulated and developed concepts within broad social theories of learning (Tight, 2015). The extensive use and application of the theory has brought its own issues. Its wide-ranging use has resulted in varied interpretations of concepts,

which may be due to the authors' ambiguous definitions. Some researchers criticize the flexibility of the theory as a reason for its current popular use as a technique for administrators to achieve greater efficiencies in their organizations rather than its original use as a means of thinking about how people learn in a group (Tight, 2015).

Although, employee knowledge sharing provides opportunity for mutual learning, there are contrasting views in the literature on how group and network characteristics predict knowledge sharing (Obstfeld, 2005; Reinholt, Pedersen, & Foss, 2011). Most contemporary organizations are conceptualized as having networks in which members are connected by relational ties (Cross & Cummings, 2014; Gittell, Seidner, & Wimbush, 2009). These relational ties often have various terms: units, teams, departments, and communities of practice that are used interchangeably in many instances with varied meanings for members. A difference in understanding of team functioning and the rapidly changing environment and dynamic organizational structures provide fewer opportunities for employees to build strongly tied networks and create shared meaning of group identity (Gargiulo et al, 2009). This cascades into less opportunity to mediate issues of ego, power, position, and performance, which all impact the networks' knowledge sharing ability and poses a challenge for leaders of learning organizations that depend on employees' performing well in large intraorganizational networks (Mors, 2010; Ornek & Ayas, 2015). Not only does workplace conflict impact interprofessional healthcare teamwork, it contributes to employee's anxiety and overall job satisfaction and performance, which ultimately impacts the quality of patient care (Hall, Johnson, Watt, Tsipa, & O'Connor, 2016; Rowland, 2017).

Conflict and tensions that impede the success of distributed learning may also impede the success of distributed leadership in CoPs. Lester & Kezar (2017) argue critical events, such as leadership junctures in a community's evolution, may create a moment of crisis for that

community. Wenger (2000) argues the composition of a CoP, includes the role of a community coordinator, a leader who manages the day-to day activities of group work. The task of leadership in the CoP is often shared as people move in and out of the group due to time constraints or other responsibilities. Wenger (1998), suggests because individuals participate within several communities, each with different practices and identities, people behave differently in each as part of their self-management and alignment with group norms and practices. Handley, Sturdy, Fincham, & Clark (2006) argue this compartmentalization of identity and behaviours is problematic for knowledge transfer and distributed learning, both which CoPs purport to achieve. Furthermore, the juncture of change from one leader to the next may pose challenges for sustainability of distributed leadership within CoPs and the larger organization, if succession plans, leadership development plans, and intentional networking are not considered (Lester & Kezar, 2017).

Facilitation

Leadership

Leadership is a well-researched subject area. Leadership studies illustrate the multidimensionality of the concept. There are many understandings of leadership dependant on the perspective or lens applied, thus characteristics and explanations of elements may vary (Van Wart, Hondeghem, Schwella, & Nice, 2015). This study focuses on literature that has explored leadership style in correlation to organization function and leading workers. In essence, looking at how leaders influence workers in their efforts to operationalize the organizational mandate (Bass & Avolio, 1994). These approaches concentrate on relationships between leaders and followers. Based on the PARIHS framework used in this study, transformational leadership was used as a starting point for understanding leadership practice, as the framework proposes

transformational leaders work with and influence their employees to implement change (Rycroft-Malone et al., 2004). Cliff (2012) concurs and argues the commitment and engagement of leadership is the single most important factor contributing to patient-centred care, which is a foundation of health system performance. Applying a person-centred approach to leadership facilitates person-centered care behaviours and fosters healthful relationships and a healthy care climate and culture (Cardiff, McCormack, & McCance, 2018; Manley, Sanders, Cardiff, & Webster, 2011; McCormack & McCance, 2006). The elements of person-centered that are essential for leaders to role model are: "the centrality of person; the need for respect and the expression of values and beliefs; the need to take an integrated approach to care; to communicate effectively; and to share in decision-making processes" (Kitson et al., 2012, p.9).

Effective leaders are given a mandate to be responsive to the volatility and complexity that defines the current climate in healthcare and to lead their organization by promoting bold ideas and bringing about change required to respond to challenges in the healthcare system. Within the field of implementation science, there is recognition of the contextual element of leadership in innovation implementation (Manley et al., 2011; Stetler et al, 2011). Leaders influence the subjective norms of potential adopters through interpersonal networks and communication as a dimension of their role that impacts innovation implementation (Rogers, 2003). Briganti (2019) identifies eight behaviours for leaders to build a culture of innovation in their organization. These are: reflect on current culture and identify gaps in ways to promote or inhibit innovative behaviour; set goals for change; ensure leadership team includes representation of innovative talent from all levels of the organization; include innovation as part of every employee performance indicators; recognize and address innovation resister and blockers; celebrate small successes and progress; continuously monitor and evaluate; and gather

feedback from the rank and file of the organization (Briganti, 2019). Stetler, Richie, Rycroft-Malone and Charns, (2014) highlight the importance of leaders' attention to staff engagement, working to bridge functional divides, focusing on the value derived for patients and staff, and nurturing a long-term view of quality improvement as key elements for cultural transformation of innovation.

Although the term leadership generally refers to the management of people to get a job done, there is much debate and scholarship on what constitutes effective leadership for innovation adoption (Willis et al, 2016). Generally, research supports the idea that active positive leadership promotes positive results for the organization and patient outcomes (Schein, 2010; Aiken, Clarke, Sloane, Lake, & Cheney, 2008; West et al., 2015). From the leadership literature, a continuum of leadership theory has evolved that categorizes the practice of leadership into three traditional types: transactional, transformational, and transcendent (Gardiner, 2006). More recently, servant, empowering, authentic, and relational approaches are gaining attention (Burnes, Hughes, & By, 2018). Servant leadership places the interests of followers over the self-interest of the leader (Hale & Fields, 2007); empowering leadership entails delegation of authority to employees (Kirkman & Rosen, 1999); authentic leadership builds upon and promotes positive capacities and a constructive ethical climate (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008); and relational leadership places emphasis on the rich connections and interdependencies between organizations and their workers (Bradbury & Lichtenstein, 2000). Transactional leadership, first coined by Burns (1978) motivates the behavior of others by invoking reward and punishment through exchange processes that serve to meet the leader's goals for performance and the worker's basic material needs. Transformational leadership goes beyond simply exchanging reward for performance of service to delving into what motivates

employees to contribute and engage in their work and organizational life (Bass, 1995). Transformational leadership is recognized as an element of the PARIHS framework that promotes successful innovation implementation (Rycroft-Malone, 2004) and because of this, I will engage in ascertaining more of its features.

The PARIHS framework outlines key elements of the evidence to action process. As part of its model are considerations of the interrelationships embedded in practice and ways to explain the complex set of phenomena involved in these relationships that enable action (Kitson et al. 2008). Transformational leadership can inspire workers to embrace change by fostering a company culture that motivates people to innovate to help the organization grow and shape its future success. In healthcare, success is largely seen as better patient outcomes (Woiceshyn, Blades, & Pendharkar, 2017; Health Canada, 2015). This approach encourages leaders to demonstrate strong and authentic leadership. Bass (1995) outlined features of transformational leadership; these include: an emphasis on authenticity, cooperation, and open communication; an ability to exemplify moral standards and encourage the same of others; a clarity of vision that foster an ethical work environment with clear values, priorities, and standards; and an ability to make work meaningful by providing autonomy but also support through coaching and mentoring. This approach underscores the personal efforts of the leader in their day to day activities that help shape positive perceptions among followers. A study of nursing staff in Malaysian hospitals found a facilitating effect of empowerment between transformational leadership and job satisfaction of nursing staff (Choi, Goh, Adam & Tan, 2016).This is congruent with other literature in healthcare that correlates transformational leadership with positive outcomes for worker effectiveness and job satisfaction (Weberg 2010; Shaughnessy, Griffin, Bhattacharya, & Fitzpatrick, 2018)).

In summary, scholars of leadership theory suggest organizational contexts differ and have dynamic qualities. This creates realities where required leadership elements may overlap during the lifecycle of innovation implementation. The activities of innovation and change require leaders be engaged and aware of the complexity of their social system and be ready to adapt their leadership style to its fluctuations (Willis et al., 2016).

Evaluation

The degree to which innovation implementation is carried out as intended is part of an evaluation process. Evaluation is a broad term that can be defined as the systematic collection, analysis, and interpretation of data to inform judgments about whether a program, process, or service has met its objectives (Patton, 2001). Evaluation is a necessary component of the environment that seeks to implement evidence into practice (Kitson et al., 2008). Healthcare organizations have a duty to provide safe and ethical care and are routinely scrutinized by regulatory and accreditation bodies to ensure they maintain stability following change to their institutional protocols. This also includes assessment of their performance and evaluation of protocols that are part of the process to create and incorporate new knowledge (Ratnapalan & Ulreyk, 2014). Research suggests good practice in change management, includes planned, systematic and rigorous evaluation processes as a key part of successful innovation implementation (Grol et al., 2013). Nelson (2003) asserts the management of change should also incorporate the regular review of progress, and that strategy should change in response to feedback. McCormack et al., (2001), further identify user feedback, practice narratives, and practitioners' reflections as key components of evaluating implementation effectiveness. Their findings underscore the importance of communicating progress and providing feedback as essential elements in the support of social interactions and align with social learning theorists

who postulate that interaction between a practitioner, his or her performance, and the environment is continuously reinforced (Bandura, 1986). Similarly, theories on the diffusion of innovation suggest social networks influence the pattern of adoption over time by the interconnectedness of their communication and feedback channels (Rogers, 2003).

As healthcare organizations adapt and respond to their complexity reality, greater emphasis is placed on decentralized organizing structures and system approaches to leadership (Senge, Hamilton & Kania, 2015). A systems orientation for leadership creates more facilitative means for innovation to be supported, analyzed and evaluated. The literature supports complex health innovation cannot be managed by any single leader but requires the efforts of many people across the organization (Lichtenstein, Uhl-Bien, Marion, Seers, & Orton, 2006; May, Dorwich, & Fince, 2007; Helfrich et al., 2007). The need to have many people involved in innovation implementation at various levels within the organization, places enormous pressure on developing a coherent and transparent strategy for change, which includes integrating planning processes, evaluation goals and indicators, metrics of measurement for embedding of new practice into routines and organization (Grol et al., 2013). These plans and processes are made explicit through the actions and communications of organizational leaders and facilitators of innovation (West et al., 2015; Zerfass & Viertmann, 2016).

Overview of the Constructs

The literature review has demonstrated a strong link between the successful adoption of evidence in clinical practice to quality patient care and sustainable contemporary health organizations. Examination of the literature uncovered the value of leadership to innovative organizations through theoretical frameworks of evidence-to-action, implementation science, person-centredness, organizational culture, leadership styles, and continuous learning and

knowledge sharing strategies that support hospital organizations and their workers in providing quality care services and responsiveness to the multidimensional health needs of patients. With a greater awareness of the impact innovation and health technologies have on healthcare, there is also more emphasis placed on leadership as a means to improve adoption rates in health organizations (Park & Kim, 2015). The implementation science literature has a comprehensive body of work reviewing concepts, applications, and development of technology adoption models and theories that demonstrate knowledge is a critical resource for organizations' innovation and competitive advantage (Rogers, 2003). However, there is little practical evidence for application of innovation adoption in clinical settings (Lai, 2017; Denis, Hebert, Langley, Lozeau & Trottier. 2002; Atun, 2012). From the literature on knowledge sharing, continuous learning strategies are important driving forces of knowledge creation and for leaders to have understanding of the dynamics and mechanisms within their organization (Kang & Kim, 2010). However, again divergent perspectives do not provide a coherent practical approach or best strategy to embed new evidence into practice (Park & Kim, 2015; Tight, 2015).

As I explored the body of literature related to organizational culture and leadership there was wide consensus of the value of transformational leadership for enhancing employee's organizational commitment and job satisfaction. Similarly, this leadership approach had recognized value for organization's undergoing environmental changes, such as in the case of innovation adoption. Scholars have also demonstrated transformational leadership has direct influence on the knowledge sharing climate, person-centredness, organizational learning of organizations (Yang, 2007; Klien & Knight, 2005; Senge et al., 2015; Naldemirci et al., 2017).

Exploration of the literature provided me with a platform to engage in my research by drawing on the constructs that influence innovation diffusion in healthcare organizations. Given

the complexity of, and multiple influences on the social reality in which health providers work, and the underlying premise of multiple interpretations of that reality, I sought to inform myself of testimony that suggests practical ways to adopt innovation in clinical practice. Although, I have gained a deeper understanding of the challenges, issues and drivers of innovation, I find myself still uncertain of the *best* approach. My aim during the study was to be open, responsive and reflexive as I explored health leaders' perceptions of innovation implementation in clinical practice.

Chapter Summary

In this chapter I critically analyzed the literature related to the purpose of my study and its research questions. The PARIHS framework was presented as a means to structure the literature review, using its main elements: evidence, context, and facilitation to explore the constructs and influences on innovation adoption in practice. The next chapter will address methodological considerations.

Chapter Three: Methodology

This chapter outlines the ontological and epistemological assumptions underpinning this study. This will ground my work and support my choices of methodology, methods, and role as researcher. The logical sequencing and systematic techniques employed in this study are then defined, including descriptions of participant selection, data collection and analysis processes. Next, in alignment with this qualitative inquiry, trustworthiness criteria are considered, benefits to participants are discussed, and limitations of the study are outlined.

Paradigm

Humankind is constantly examining the world to understand its truth. Metaphysical truths are fundamental beliefs taken at face value and used as benchmarks against which everything else is tested. Sets of metaphysical beliefs become a system of ideas, a paradigm, which guide the process of systematic research (Lincoln & Guba, 1985). Positivist inquiry is rooted in a realist ontology, wherein the researcher is driven by an objective epistemology and engages in empirical experimentation that seeks to understand the world operating according to natural laws by breaking reality down into measurable segments (Guba, 1990). Investigators aligned with the naturalistic paradigm avoid manipulating research variables and accept the ontological assumption that the nature of reality is relative and "cannot be proven or disproven" (Guba 1990, p. 18). The scientist carries out research in the natural setting or context of the entity studied in the belief that realities are multiple constructions and therefore must be studied holistically, rather than fragmented and studied independently, for full understanding (Lincoln & Guba, 1985). Reconciliation of the multiple subjective interpretations of social reality, assumes social

reality is embedded within and shaped by human experiences and social contexts. I support the stance that the *knower of experience* is inextricably linked to the experience itself. An individual's subjective lived experience is a negotiation between their cultural, social, and historical make-up. People gain knowledge from their negotiated meanings based on how things appear to them in reality (Langdridge, 2008). The lived truths of the phenomenon are collected through the subjective, detailed and narrated exploration of the personal accounts of implementing innovation in clinical practice. In the collection of the data, as the researcher, I co-construct with participants an interpretation of their lived experience through their subjective narrative description of *what* they experienced and *how* they experienced it (Langdridge, 2008).

Epistemology

The study of social problems from the standpoint of a qualitative, relativistic, constructivist ontology complements Max Weber's notion of *Verstehen,* which means to understand, or more specifically, to have *meaningful valid understanding* of something (Bryman, 2008). For me this means the acquisition of knowledge comes from the interaction between investigator and the object of inquiry and is bound by the context, events, and time of the situated exchanges (Lincoln & Guba, 1985). How the world appears to people, their perceptions of it and how it is experienced will vary in its meaningfulness. My assumption is that people experience similar events in different ways, therefore focusing on individual perceptions and lived experience is necessary for a natural description and interpretation of phenomenon. To gain an understanding of innovation in clinical practice, I must rely on the experience and perceptions of the individuals who have experienced it. Creswell (2007) argues experiences are the philosophical basis for our understanding, knowledge, and truth.

To gain a meaningful understanding of situated learning of healthcare leaders from participating in innovation implementation in clinical practice, I also drew on Deweyan pragmatic conceptions of learning as a constructivist theory. Pragmatists argue social reality is constructed, and "truth" emerges in the process of such construction. In short, pragmatists get insights into whether a person's beliefs work by acting on them and observing the practical consequences of the action (Denzin & Lincoln, 2011). In Dewey's view, the continual reorganisation and transformation of behaviours redirects ongoing activities into other channels that changes the environment and the individual (Dewey, 1966). The social environment thus becomes a learning environment, in the degree to which individuals share or participate in some conjoint activity and adopt the purpose which motivated it, and acquire the necessary knowledge (Kivinen & Ristela, 2003).

Phenomenology

Given the intent of this study, choosing a phenomenological approach allowed me to gain a deep understanding of the subjective experiences of health leaders with innovation implementation in clinical practice within acute care hospitals. The epistemological and ontological assumptions of this study translate well to phenomenological methodology (Creswell 2013). Phenomenology is "the study of human experience and of the ways things present themselves to us in and through such experience" (Sokolowski, 2000, p.2). A phenomenological approach seeks to make sense of the meaning of structures of the lived experience (Langdridge, 2008). Husserl, considered the founder of phenomenological philosophy, focused on the way the world appears to people in their consciousness; from the first-person point of view. Husserl focused on the way consciousness intentionally relates to objects of the world (Langdridge, 2008). Being intentional means seeing an object or phenomena, their meanings, and their

essences. The idea of *essence* is central to Husserl philosophy. According to Husserl (as cited in Dahlberg, 2006):

> "The truth is that everyone sees 'ideas', 'essences', and sees them, so to speak, continuously; they operate with them in their thinking and they also make judgements about them. It is only that, from their theoretical 'standpoint', people interpret them away" (p.12).

In other words, how in the everyday world in which we live, a person sees or understands an object they are interacting with, determines their meaning of that object, in their experience with it; that is its essence. In order to successfully achieve contact with essences, Husserl devised phenomenological reduction (Laverty, 2003). The practice of phenomenology, Husserl argued, involves the notion of "bracketing" of what one already knows and assumes. Bracketing serves to focus on the experience with an object and the meaning of that experience. By putting aside, one's own assumptions and biases, one can then transcend beyond their own experience and embrace multiple perspectives "to see the phenomena as it really is" (Laverty, 2003, p. 23). This process of bracketing seeks to put our experience, as the researcher, apart to focus on those of the participants' and recognize the importance of being reflexive in the use of a phenomenological approach (Langdridge, 2008).

Within phenomenology, there are distinctions that have been influenced by different philosophical debates that further developed and expanded Husserl's ideas. Noteworthy philosophers that have contributed to the field include Heideggar, Sartre, Merleau-Ponty, Gadamer, and Ricoeur, and as a result phenomenology has grown to a point where there is no unified concept, idea, or methodology (Creswell, 2007). The different theorists have moved phenomenological approaches towards developing existential and hermeneutic features

(Langdridge, 2008). Existential phenomenologists separate themselves from Husserl's notion of the researcher having a detached standpoint while conducting research, in favor of having more contact with the world being studied (Kafle, 2011).

Hermeneutic Phenomenology

Hermeneutic phenomenologists claim interpretation is critical to the process of understanding phenomena through language (Dowling, 2007). In this study, I developed a conversational relationship with interviewees, in which shared meanings of their detailed account of their experiences are generated. In this sense, language is critical in the construction of joint understanding. An inquiry grounded in Gadamerian hermeneutics engages in dialogue with a reciprocal process of feedback and interpretation (Dowling, 2007). Contrary to Husserl, Gadamer's position supports "prejudices as the condition of knowledge that determine what we find intelligible in any situation" (Laverty, 2003, p. 25) they cannot be forgotten or transcended and are positive in our search for meaning (Finlay, 2008).

As a methodology, hermeneutical phenomenology studies interpretive structures of experience, such as, spoken accounts of personal experience. By studying the text of interview transcripts and developing themes that reflect meaning of the phenomenon, the themes become written interpretations of the lived experience (van Manen, 2014). In his work, van Manen builds upon and connects phenomenology and hermeneutics (Sloan & Bowe, 2014). Van Manen presents hermeneutic phenomenology as:

> "a method of abstemious reflection on the basic structures of the lived experience of human existence… Abstemious means that reflecting on experience aims to abstain from theoretical, polemical, suppositional, and emotional intoxications. Hermeneutic means that reflecting on experience must aim for discursive language and sensitive interpretive

devices that make phenomenological analysis, explication, and description possible and intelligible" (van Manen, 2014, p.12).

Applying the reduction and engaging in the phenomenological attitude involves empathy, openness and reflexivity (Finlay, 2008). To operationalize this approach, van Manen (2014) advises the researcher to be open (epoché), while bracketing presumptions, and then to close in on the meaning (reduction) from a pre-reflective state that shows meaning of ordinary experience. He suggests "if we want to come to an understanding of the meaning and significance of something, we need to reflect on it by practicing a thoughtful attentiveness" (van Manen, 2014, p. 221). Laverty (2003) further clarifies the difference in approach to reflection, stating "the overt naming of assumptions and influences as key contributors to the research process in hermeneutic phenomenology is one striking difference from the naming and then bracketing of bias or assumptions in phenomenology (p.18). In other words, this means, as the researcher, I spent considerable time exploring the literature and theories relevant to my topic, which were discussed in Chapter Two; however, as I started the study, I tried to put those aside and enter the study with a fresh mind and openness for discovery. Furthermore, on an ongoing basis, I sought to reflect upon my own experience and interpretations and to critically and reflexively interrogate them for understanding as they related to my topic (Finlay, 2008; Laverty, 2003).

In the writing process of transcribing the interviews to text and examining the words and phrases for meaning, I studied the phenomena. Through these processes and in conducting this study, while focusing on these experiences, I had opportunity to gain new thoughts and meanings. van Manen (2014) recommends a hermeneutic phenomenological methodology for researchers interested in elucidating lived experience of daily involvements and practices in

education, health, and nursing fields to reveal meaning through a process of understanding and interpretation. This methodology has contemporary popularity in these disciplines (Dowling, 2007).

Research Design

Pragmatists focus on the problem, in its social and historical context, as the important part of research and the questions being asked about the problem (Creswell, 2013). They are less concerned about choosing any one system of philosophical assumptions to underpin their research, rather, opting for practical implications and a variety of methods that best address the research problem (Creswell, 2013). This resonates with the descriptive nature of qualitative research previously described as a *bricolage* of a wide range of interconnected methods to capture the essential essence of a phenomenon (Denzin & Lincoln, 2011). Similarly, this is also congruent with clinical practice where practitioners often use methods of inquiry that may be a composition of actions based on experience, trial and error, and intuition to solve the problem at hand (Nowell, 2015; Schon, 1983).

The goal of qualitative study is to understand the complex world of human experience and behavior from the point-of-view of those involved in the situation of interest (Creswell, 2013). Conceptions of meaning are determined through interactions between participants and researcher. For example, nursing knowledge development comes from both practice, where nurses interact with patients, families, and other members of the care team and from theory (Roy, 2019). Using pragmatic integrative approaches allow nurse researchers to address the complex and multifaceted problems that come with innovation implementation in clinical practice and to embrace comprehensive understandings of evidence (Doyle, Brady, & Byrne, 2009).This promotes flexibility in research design, data collection, and analysis of data to gain

understanding and valid representation of participants' viewpoints (Denzin & Lincoln, 2011). In this study, I sought to understand the participants' experiences through dialogue and further interpretation of their narrative through analysing the texts of my interviews with respondents and applying my theoretical and personal knowledge to explicate meanings and assumptions the interviewees may have had difficulty articulating, such as workplace conflict.

Since I sought to gain depth of information from participants, I chose interviews as a data collection method that were designed to be open-ended and less structured. Semi-structured interviews are used for data collection to describe the phenomenon in the lived world of participants as described by them and to encourage participants to freely share details (Denzin & Lincoln, 2011). Thematic analysis, both deductive and inductive, of the data was done for the purpose of capturing themes and patterns across multiple subjective perceptions of realities and for generating a holistic interpretive description capable of informing clinical practice (Lincoln & Guba, 1985; Sandelowski & Barroso, 2003).

Researcher Role

In qualitative studies, the role of the researcher is considered an instrument of data collection (Denzin & Lincoln, 2011). The value of an interpretivist orientation is that knowledge is concerned with illumination and meaning rather than prediction and generalizability. I was aware that as the researcher, my biases and assumptions, expectations, and experiences would have an impact on data collection, analysis, and interpretation and thus would require my ongoing engagement in the processes of reflection and reflexivity (Creswell, 2013). My goal of achieving a unique understanding, involved synthesis of multiple realities, to get a rich description of the complexity of innovation implementation in practice.

Participant Selection

By listening to what participants said about their natural day-to-day work setting, I hoped to capture a broad view generating an emergent pattern of meaning of successful innovation implementation processes in a hospital. The goal of hermeneutic phenomenology research is to develop a rich description of phenomenon being studied in a particular context (van Manen, 1997). Sampling procedures for the study involved purposive sampling techniques in order to gather dense information for detailed study (Creswell & Plano Clark, 2007). Purposive sampling was used to choose participants based on my research of the institution and perceptions that they provide unique information relative to the phenomenon of interest (Teddlie &Tashakkori, 2009). The organization's media relations director was the first point of contact for me to access study participants. Organizational leaders who were considered innovation experts, decision makers, and drivers of innovation were identified. These leaders were chosen to be study participants in this study as I believed they would have a breadth of experience in working with innovation diffusion and valuable insight into leadership of quality improvement initiatives that impact patient outcomes. To delimit specific key stakeholders with homogeneous study characteristics stratified purposeful sampling was done (participants were selected from each subgroup of clinical leaders, hospital leaders, and drivers of innovation). Morse (1994) recommends a sample size of six for studies using phenomenological concepts. I determined this number was a good estimate point for the number of participants necessary for my study. However, as the study progressed with data analysis, saturation was achieved with ten participants.

Snowballing and solicitation techniques were used to seek key participants identified by senior officers of the agency to ensure other relevant participants, who may not have been identified by me or through the media relations department, were included. Generalizability was

not a concern of this qualitative study; thus, the sample was determined to be adequate as they had knowledge of the research topic and saturation was met after ten interviews when redundancy of information was realized (Bowen, 2008). The criteria used to select health leaders included:

1. Currently in a leadership role within the agency.
2. Currently involved in or had previous experience in working with innovation implementation in the agency (i.e. driver of innovation, decision-maker, policy maker).
3. Roles and responsibilities directly impact innovation in the agency.

The sample represented leadership across the organization, from the board level to senior executives, frontline managers, and clinical nurse educators, including health leaders from hospitals in rural and urban settings (see Table 2). The range of participants in the study provided richness in data collected and multiple varied perspectives for illuminating the phenomena (van Manen, 1997). Pseudonyms were assigned to each participant to ensure confidentiality and anchor their importance to meanings in the study (Seidman, 2006).

Table 2. Participant Profiles

Participant	Position
William	Board member
Emma	Senior operating officer
Olivia	Senior operating officer
James	Senior operating officer
Mary	Program manager
Jennifer	Unit manager
David	Unit manager

Betty	Unit manager
Donna	Clinical nurse educator
Tom	Clinical nurse educator

Ethics and Confidentiality

The protection and welfare of study participants is paramount in any research involving human subjects and as such I observed the essential ethical principle of participants freely volunteering and participating in the research (Seidman, 2006). All participants were asked to review and sign a written information letter and consent form prior to the start of the interview process (see Appendix A). Those who agreed to participate in this study were able to leave the study at any time, up to two weeks following their verification of the written transcript of their interview; to protect the integrity of my research and to allow me to conduct my analysis, participants understood I would not remove their interview data from my study after this deadline had passed. All paper documents containing any participant identifying information were kept in a secure locked drawer during the study period and in a locked filing cabinet thereafter. Relevant electronic data was password protected. Deletion conditions of the electronic and paper data files aligned with University of Alberta protocols. Ethical approval of the study was obtained from the University of Alberta Research Ethic Board and from Covenant Health Research Ethics Board prior to study commitment (see Appendix B).

Data Collection

Health leaders' perceptions were collected primarily through interviews and from notes made in my researcher's journal. Data collection occurred over three months, from June to August 2018.

Individual Interviewing

The interview is a common source of data gathering for studies using a hermeneutic phenomenological approach. Interviews allow participants to tell their story in their own words and for me, the researcher, to engage in conversational dialogue to understand and make sense of the experience (van Manen, 1997). A letter of introduction and overview of the study was sent to the organization's media relations department (see Appendix C), who then sent out an invitation request for voluntary participation in the study to hospital staff (staff identified as potentially having used, informed, or driven innovation) in advance of the onsite start date of the study. Teddlie and Tashakkori (2009) suggest one cultural group, in my study this was hospital staff that had an impact on health innovations, to be representative of a sample size for qualitative methods.

A total of ten participants were invited to be interviewed to provide detailed data of their everyday learning experiences and their expressed perceptions and meanings of working with health innovations (see Appendix D). A single semi-structured interview was scheduled, for one hour, with each participant with provisions made for follow-up as necessary to ensure accuracy of information. I was cognizant of participant time. Due to the nature of the roles my respondents held and the tightness of their daily schedules, a pre -determined length of one hour was agreed upon for an interview. The shortness of this time period helped me focus my attention to conduct interviews with purpose and relativism to my research questions and to refrain from digressing

into casual conversation. van Manen (1997) warns of the dangers of interviewers, in phenomenological studies, not attending to their questions, resulting in findings that may be difficult to analyze. These interviews were audio recorded and transcribed verbatim. Semi - structured interviews were chosen to allow for researcher flexibility as the study progressed. The informal structure of the interview tool assisted in ensuring relevant information about the context and the perspective an interviewee believed about their present and past experience with health innovation implementation was the focus. Participants were free to respond to probing questions and to elaborate on topics that held more meaning to them. Some of the questions I asked interviewees, were standard across all interviews, such as what their definition of innovation was. This helped me compare and contrast specific meaning across interviews (Glaskel, 2000). The semi-structured interview also provided me, as the researcher, flexibility in pursuing additional questions of participants based on their responses, which aligned with the study's iterative approach and emerging design.

Prior to the participant interviews, an interview guide for the semi-structured interviews was developed (see Appendix E). The guide took into consideration: (a) the literature review (b) the purpose of the study and research questions (c) the amount of time I had to conduct each interview, and (d) the learnings I took away from a pilot study that tested the guide. I learned from conducting an interview in the pilot study, that the guide I had developed required refinement. Questions were edited for clarity, concision, and more direct linkage to the study purpose and research questions. Further editing of interview questions continued as the study progressed. Reflection on emergent findings impacted subsequent interviews and the types of questions posed to participants, which aligned with the inductive nature of the study. My

deliberate reflexivity also aligned with the assumptions of the hermeneutic phenomenological approach I used and was essential to my interpretative processes (Laverty, 2003).

Upon confirmation of participation within the study, participants were emailed key questions that would guide the interview, a date was scheduled for the interview, and the consent was sent for return signature. Participants had the choice of an in-person or telephone interview; all chose telephone interview to best accommodate their schedule, responsibilities, and location. Negotiation of the above was conducted by phone and email either directly with the person or with her or his administrative assistant. Cachia and Millwood (2011) argue telephone-based communication parallels the structure of semi- structured interviews and the agenda driven by telephone interactions in many business orientated communications. It also has methodological strengths rather than simply a convenience factor for qualitative research. The authors suggest "the lack of visual cues lead to a more explicit exploration of the individual's emotional and cognitive experience, otherwise conveyed non-verbally" (Cachia & Millwood, 2011, p. 272). The exploration of a respondents pauses, silences, and changes in voice tonality provide opportunity for further probing and can enrich the data.

At the beginning of each telephone interview, the purpose and scope of the interview were reviewed with the participant, as was their consent, ethical considerations, and confidentiality. Then I provided opportunity for questions and reminded participants about their right to withdraw from the study. This helped establish trust and researcher credibility with participants. It also helped focus the interview on my agenda and the reason for the call. Participants were asked to consent to audio-recording of the interview and were informed that they would be emailed a copy of the verbatim transcript within two weeks of the interview for review and clarification. When transcripts were emailed to participants, I included questions that

had developed during transcription to assist in clarifying my emerging interpretations and to facilitate member checking (Saldana, 2013).

Each interview was scheduled for 60 minutes and most typically ran over by 5-10 minutes. The interviews took on a conversational tone and had a sense of informality. This helped establish rapport and ongoing trust, which I felt was critical in developing an open authentic dialogue with each participant about their experiences and insights. Semi-structured interviews were used to best capture the unique experiences and perceptions from each participant and to ensure flexibility, as the study progressed, and to add questions from ongoing data analysis (Creswell, 2009). Each interview audio recording was transcribed verbatim by me and emailed to participants for verification. To ensure I understood and captured participant ideas I provided a summary of my interpretations following the interview. When I emailed the transcript of an interview to a participant, I highlighted areas that I was unsure if I captured accurate meaning. Also, from one interview to the next, I would highlight and build on my emerging understandings and seek clarification, consensus, and endorsement. Follow-up interviews occurred with six of the participants to clarify information and check emerging interpretations. These were brief and usually lasted about 15 minutes and were conducted over the phone. The remaining four participants simply confirmed the accuracy of the interview content and meaning by email.

I chose semi-structured interviews as a data gathering method in the belief that my skills as an interviewer were adequate. I have taught undergraduate nursing courses in interprofessional nursing with a focus on effective communication strategies and techniques. My prior experiences working as a practitioner, interviewing clients to obtain their health history, as well as working as an educator and administrator, responsible for hiring, interviewing and

debriefing contributed to my active interview style. My style for building an effective nurse-patient relationship, active listening, adaptive questioning, providing empathy, validation, and summarization was used with my study participants (Kozier et al., 2018).

A review of public secondary data sources was used to provide further meaning of the group experience, behaviours, and interactions. I reviewed open public records as part of my preparation for the interviews and as a way to orientate myself to the context of the organization. A web-based search, using Google as a search engine, for public documents was initiated using agency name combined with the word's technology and innovation. This produced three corporate policy and procedure documents: *Information Technology Acceptable Use and Safeguards*, *Assistive Equipment (including Technology Aides & Medical/Surgical Supplies*), and the *Strategic Plan*. The search also produced a link to the Alberta Government's (2017) report entitled *Alberta Innovates: Annual Impact Report for Health Innovation 2016-17* which mentioned Covenant Health's provincial partnership with ethics review and approval process as part of the provincial coordinated and integrated research and innovation system.

Researcher Journal

To explicate my reflexivity, I maintained a research journal throughout the study to create an audit trail of my thoughts and reflections, which influenced my decisions as the study evolved and my interpretations (Lincoln & Guba, 1985). As part of the processes in my study, a sought confirmation of my emergent understanding with participants. I did this by summarizing my understanding of the narrative during an interview. Following an interview, while transcribing, I kept notes of my evolving understanding to clarify with the interviewee and to form the basis of further questions of interviewees as the study progressed. Being mindful and reflexive resulted in me reviewing the data many times (sometimes just sections of data), usually asking myself

different questions each time such as “What did she or he really mean, when they said that?” or “Why do I think the meaning is that?” or “What else am I thinking when I read this?” For a sample of an entry in my research journal, see Table 3.

Table 3. Sample of Researcher Journal Entry

Date	Activity	Description of thoughts, reflections, questions.
July 17, 2018	-Listening to audio-recording of interview with Mary -Listening for other meanings	-ease of answering questions (often provided examples and antidotes without prompts) -familiarity with topic -moved between pronoun - laughter sprinkled throughout conversation - “I’ and “we” (is there significance to that?) -often stated “my team” - mentioned the word “champion” consistently -workload and balance are important -pauses to gather thoughts or pick words
July 24, 2018	-Listening to audio-recording of interview with David -Listening for other meanings	“Checking in” Clarification needed - what does this mean? How do you do that? - “listen, help make sense of things, advocate, and are transparent” What does this really mean-

		What are some of the things you noticed people need to make sense of innovation?

Data Analysis

The construction of meaning is the task of qualitative research and reflects the specific methods used in the qualitative data analysis process (Braun & Clarke 2008). van Manen (1997) suggests a fixed protype of methods to conduct hermeneutic phenomenological studies does not exist. However, in deciding my organizing system in which the narrative accounts could be analyzed, I chose to commence with content analysis. I chose thematic analysis, which is the process of identifying patterns or themes within qualitative data, to construct meaning from the texts of participant's interviews. Creswell's (2007) framework for qualitative analysis and interpretation was used as an initial guide to identify patterns and emergent themes in the data (see Figure 1). As the study progressed, thematic analysis was completed using the approach described by Braun and Clarke (2008), which includes: (a) familiarization with the data (b) generating initial codes (c) searching for themes (d) reviewing themes (e) defining and naming themes and (f) producing the report. The inductive approach sought to identify interesting and meaningful features of the data systematically across the data set. Saldana (2013) describes *coding,* as the assigning of "a summative, salient, essence-capturing, and/or evocative attributes for a portion of the language-based or visual data" (p.3). The coding process used an emergent strategy to develop codes rather than a pre-determined structure (Braun & Clarke, 2008).

Although content analysis is reductionist in nature, it assisted me in my first stages of organizing my understandings of the narrative texts. Consistent with working toward a holistic understanding of the phenomenon in my final stages of analysis, I worked to show the inter-relationships among themes and provide detailed characterization of them (Patterson & Williams (2002). I strove to engage in an iterative process, of working with the data, in an ongoing interpretation of the text and the phenomenon of innovation implementation. I was constantly reflecting to compare and contrast my assumptions with my findings. By emerging myself in the data and continuously verifying my interpretations with the original transcripts, I sought to be faithful to participant's ideas (Lincoln & Guba, 1985).

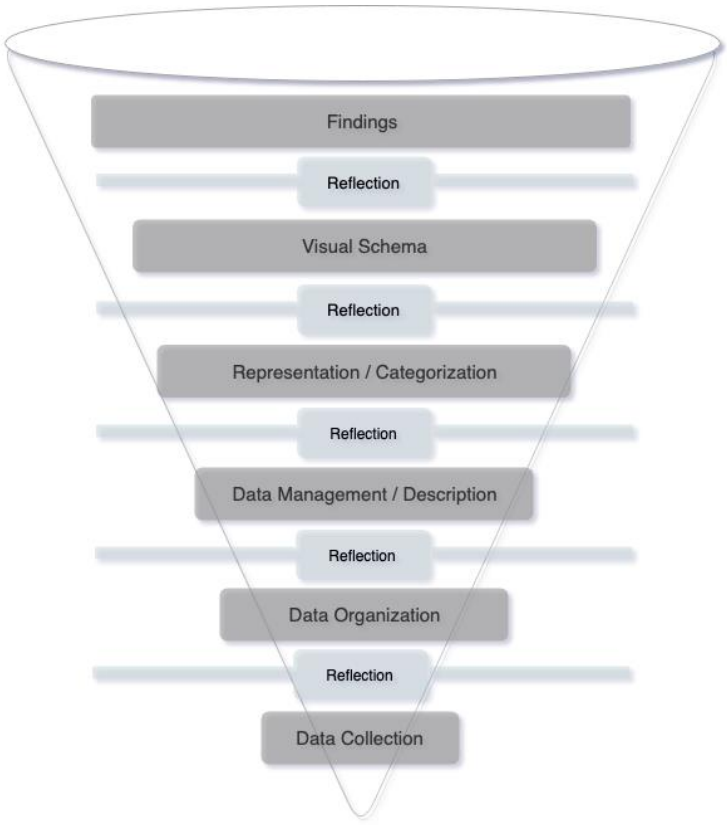

Figure 1. The coding processes. Adapted from Creswell (2007).

Analysis was orientated around the research questions of the perception's health leaders had of learnings from previous innovation implementation, their learnings about the influence of the workplace on innovation diffusion, and the evaluation that is done. The goal of the analysis was to describe the perceptions health leaders had about innovation implementation within an acute care hospital and to identify common themes linking their perceptions. To protect participant identity, names and identifying characteristics were not disclosed. Coding began with preparation and compilation of the data (hardcopies of interview transcripts and journal notes) in a common format. Then a critical read of text was done to look for *meaningful groups and categories* (Braun & Clarke, 2008). This started first with a general read of the text, to become familiar with it, followed by more attention looking for detail and interpretations. As expected, some text fell into overlapping categories and some content was deemed not appropriate or applicable to the emergent themes. I started by coding phrases, sentences and paragraphs that encompassed a complete thought. I did this by hand, underlining text first and then assigning a color to text that fit a similar category of meaning and highlighting the text with a specifically assigned color. Figure 2 is an example of data extract with code applied. In my analysis, I did not seek to record number of instances or frequency with which a code appeared, rather I looked to the text for thoughtful and meaningful examples that "served my understanding of a truth" (van Manen, 2014, p. 250). These statements were then grouped together in clusters of similar meaning.

Leadership level	Data extract	Coded for
Clinical Nurse Educator	People smiling at each other. There's eye contact- it feels like a community. That would be the other	1. Sense of belonging/community

	thing I feel like I belong, that I have purpose and value here, that I'm worthwhile.	2. Sense of purpose 3. Person focused
Senior Executive Officer	So, umm, I think the underpinning culture that I see within the organization and certainly something that I espouse to, is that we're here in service of others and that kind of sets the foundation for everything else. Another piece that I think underpins our culture is our values. So, our values underpin what it is that we do.	1. Values orientation 2. Servant leadership
Frontline Unit Manager	Unfortunately, like many things in healthcare, to me it does seem quite under resourced and we end up spending a lot of our time being driven by all the fires that are going instead of trying to hide the matches. So, we seem to be very reactive rather than proactive	1. Resource constraints 2. Priorities 3. Leadership

Figure 2. Data extract with codes applied.

From the clusters, codes were developed, defined, refined, and recorded in a codebook. The codebook was used to ensure coding reliability of the data (Saldana, 2013). Content within the codebook was organized under headings: culture, learning, values, patient care, leadership, and communication. These headings represented topic areas during the coding process that

helped me organize my thoughts but were not intended to structure meaningful patterns in the data with the respect to the research questions. Analysis and interpretation of data was a cycle of interpretation that started with the first interview and was ongoing as the study progressed. I moved between the descriptive text of participant's experiences and my own reactions and interpretations of these experiences. Once I had grouped units of meaning by color and assigned headings, I then formulated my first diagram to provide me with a visual look at my emerging understanding of innovation in clinical practice.

To strengthen credibility of my findings, I sought stakeholder checks of emergent themes as I progressed with the study (Creswell, 2007). I did this during and after an interview, to ensure my understanding was congruent with the respondents'. Journaling of first impressions to the final stages of interpretation and analysis was done to enhance my reflexivity. Continual review, refinement, and revision of themes and categories occurred as I made decisions about which themes were most relevant and I was confident they were exhaustive. This process is illustrated in the changes from the initial thematic map (Figure 3) to the next (Figure 4) and then final thematic map (Figures 5).

As part of the description of developing themes that describe and reflect the meaning of the phenomena is the phenomenological nod. This a term used by van Manen (1997) to describe the reaction readers should have when reading my interpretation and data analysis, such that they feel a recognition of the findings, and that I have captured, at least partially, the meaning of the experience of the participants, and nod in agreement. The rich descriptions of the themes come from hermeneutic strategies, namely the hermeneutic circle, which is a metaphor used to describe the interpreting of parts of the narrative text as a continuum of the whole (van Manen, 1997). Reflecting the hermeneutic cycle of analysis, and as part of developing my themes and

deepening my understanding of the phenomena; I engaged in a process of shifting from parts of each transcript back to the whole. In this instance rather than looking for themes, I looked for interpretations that expanded my emergent understandings (Moules, 2002). At the end, after incorporating the notion of hermeneutic reduction and working through the processes of the hermeneutic circle, I wrote a representation of innovation implementation in clinical practice as the leaders in my study experienced it.

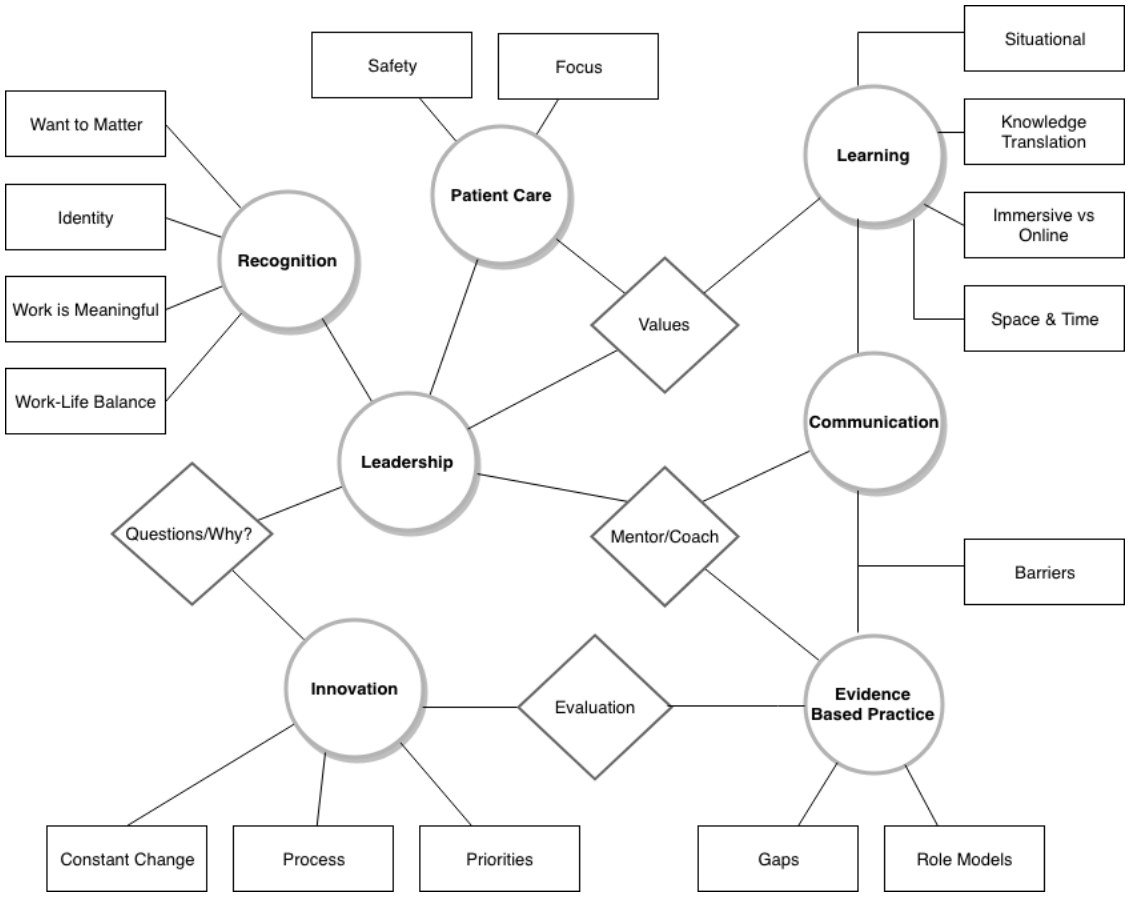

Figure 3: Initial thematic analysis

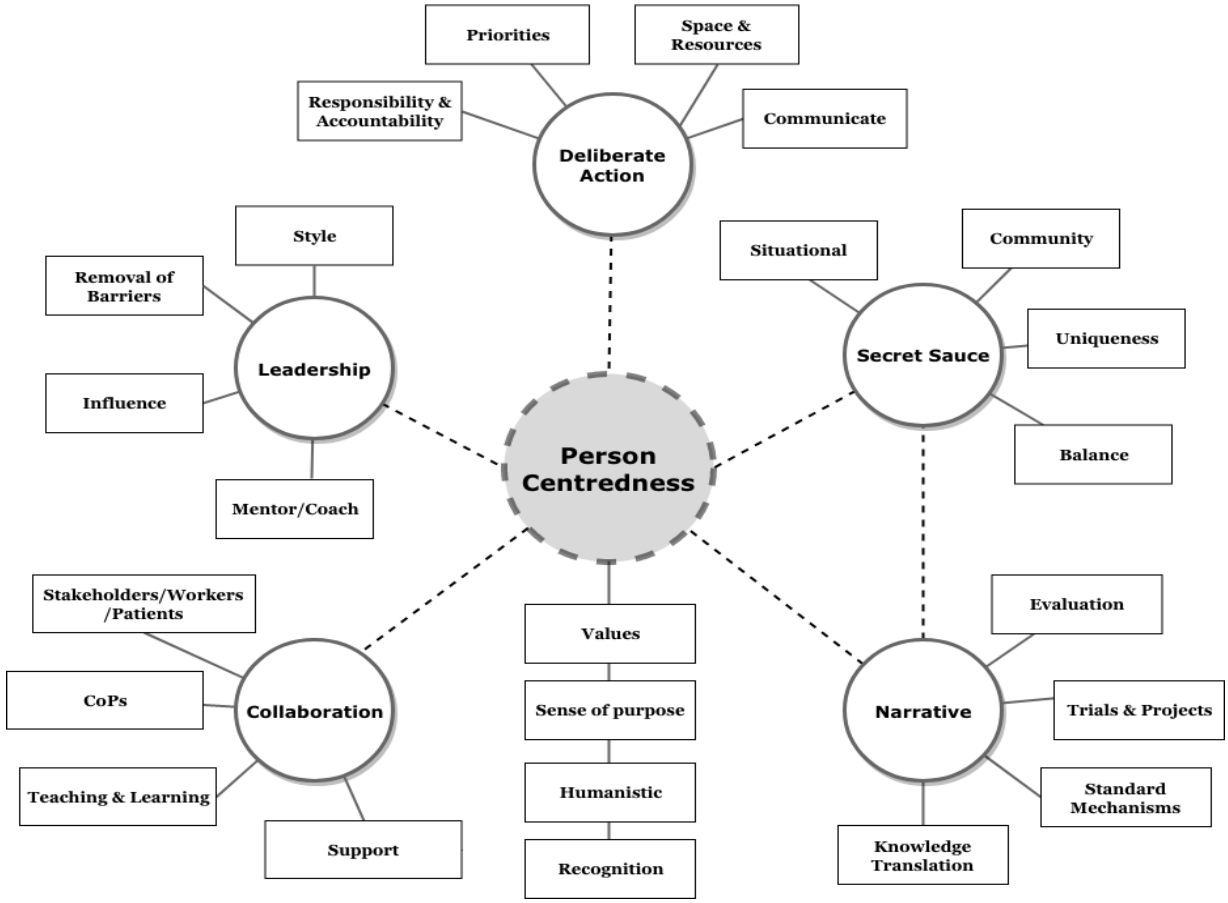

Figure 4: Ongoing refinement of thematic analysis

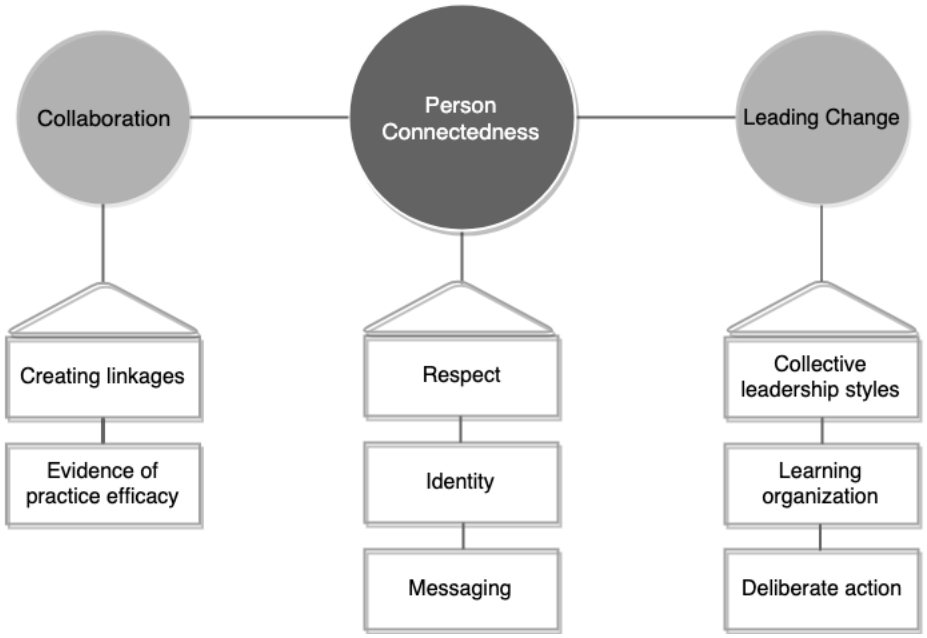

Figure 5: Final thematic analysis

Trustworthiness

My chosen methodology, phenomenology, reduces a human subject's experiences with a phenomenon to a description of its essence. The collection of descriptions of meanings for individuals of their lived experiences are my study findings (Creswell, 2007). In terms of being replicable, this qualitative study does not ascribe to this concept, as it is a reflection on particular experiences recounted at a certain moment between myself and participants. Therefore, another researcher asking similar questions may collect different data. What is important, is that I recognize the subjectivity inherent in qualitative studies and how it affects objectivity. The internal validity of this research study depends on the transparency of the research process, the plausibility of constructs, the credibility of data, and clarity of study purpose (Creswell, 2007). I have been deliberate in my closeness to the data, to outline steps taken, illustrated with examples, in order to elicit meaningful themes so that readers are warranted in believing themes are true representations of participants' lived experiences.

In concert with evaluating my research for phenomenological nod, an emphasis for studies of qualitative design, is attention to its soundness, which I satisfied using Guba's (1981) four constructs for naturalist inquiry: credibility, transferability, dependability, and confirmability. To address *credibility*, I sought to demonstrate confidence that the phenomenon of interest was accurately represented in the study. To do this I began with clarification of my beliefs and biases prior to initiating this study. I then strove to be mindful of these assumptions as the study progressed (Creswell, 2007). Next, I orientated myself to the organization of interest by reviewing public documents about the organization and reflecting on my topic to allow myself time to check my own perceptions. A pilot project completed prior to this study, wherein I was onsite to complete an interview, also helped me familiarize myself with the organization. During this study, I engaged in member checks to determine accuracy of my interpretations by testing my developing ideas, widening my vision, and probing my biases. Data source triangulation was used to explore the various understandings of innovation to develop a comprehensive understanding of phenomena (Creswell, 2007).

The findings of this qualitative designed study are context bound and are not generalizable (Guba, 1981). However, naturalistic inquiries refer to *transferability* between two contexts. To demonstrate a link of phenomena between contexts, a "thick description" of data is required, which may enable subsequent researchers a baseline understanding with which their work may be compared (Lincoln & Guba, 1985). To achieve a thick description and help place the reader in the context, I provide a detailed description of participants, processes, and interactions. A thick description supports the notion of the working hypothesis (Guba, 1981). The concept suggests there are factors that are unique to situations or series of events that inquirers are in a position to appreciate and interpret as they move from situation to situation. A

detailed rich description assists a researcher in determining the 'fittingness' or degree of congruence between two contexts (Creswell, 2007). Munhall (2012) also speaks to richness in nursing phenomenological studies as the researcher providing a full bodied, multifaceted, multilayered, thoughtful, sensitive, impassioned description of human experience.

To ensure *dependability*, I used multiple perspectives and dimensions of the lived experience and reported them in detail and completed a reflective review of the processes of the inquiry (Guba, 1981). This process seeks to demonstrate the trackability of changes with explanation within the emergent design of the study. Finally, data *confirmability* was demonstrated through recognizing aspects of each interpretation of findings and verifying them with existing data. This is further established in the responsiveness to the study, as readers read and take in my account of analysis and interpretation of findings.

Benefits to Participants

Interviews are a fundamental data collection method used in qualitative research. The risks associated with participating in the semi-structured interview was reviewed by the University of Alberta's Research Ethics Office, REB 1, which focuses on research involving in-person interviews. Research can present risks to participants and I had an obligation as the researcher to safeguard their wellbeing. I adhered to ethical principles, including respect for their autonomy, confidentiality, informed consent and voluntary participation (Munhall, 2012). Following the study, participants may feel more informed about innovation implementation in the workplace after being able to explain how it was used, their perceptions of implementation, and how it impacts patient care. Participants may also have greater motivation to be more active in promotion of improvements for innovation implementation across the organization in the future.

Limitations of Study

The emphasis on a hermeneutic phenomenological methodology is helpful for studying the lived experience of humans and understanding phenomena deeply and in detail. However, there are limitations to this approach. A limitation of using a phenomenological approach is finding individuals who have experience with the phenomenon so that I am able to forge a common understanding and obtain dense data (Creswell, 2007). Carefully chosen individuals through purposeful sampling assuaged this limitation. Another possible limitation of the study is my presence and its effect on participant responses if it inhibits their ability to candidly share information during our time together. While this was a limitation, it was a reality of the short time available to me due to the demands of time and schedule each participant faced from their role and responsibilities within the organization. I attempted to mitigate this by developing a conversational tone during the interviews to help create rapport with respondents. By allowing space and time to explore other areas linked to their experience, we were able to go back and forth between questioning and elaborating, which encouraged participants to speak openly and freely. I also practiced reflexivity throughout the study. Keeping a personal journal after each interview meant I was able to connect with my own thoughts and feelings after each interview and throughout the study. I also transcribed the interviews myself as the study progressed, which allowed me to further reflect on my role as researcher, the research process, and my unfolding interpretations. The volume of data to interpret and analyze, and my skill and ability of implementing and analyzing the inquiry are other limitations. Braun and Clarke (2008) identify several weaknesses to using an interpretative qualitative analysis; they are: time consuming, unfounded or weak analysis, and using data collection questions as reported themes. To help mitigate these limitations I sought research guidance and advice from my supervisor, exercised

member checks, and consulted with professional research colleagues to access resources and support.

However, while keeping these limitations in mind, this study presented findings that have deepened my understanding of innovation implementation in clinical practice. This study made explicit the importance and centrality of person-centredness in all workplace relationships, not just those between care provider and patient, and reminded me of the complexity of clinical practice settings and the challenges they pose for people navigating change.

Chapter Summary

In this chapter I have provided methodological rationale for this study. Methodology informs the essential procedures and techniques of this study, providing the theory behind methods used to conduct it and analyze its findings (van Manen, 1990). I provided a brief overview of my ontological and epistemological assumptions that ground my choice of hermeneutic phenomenology as a methodology. I then discussed how the methodology was applied to this particular study. Purposeful selection of health leaders who have breadth and depth of experience working with innovation implementation were chosen as study participants to provide rich and dense date for interpretation. Hermeneutic methods of understanding were applied in cycles of interpretation to uncover a full meaning of adoption and use of innovation for quality improvement of patient care through the multifaceted and complex realities layered through a health organization and its network of relations existing in the workplace.

In the following chapters, findings will be presented with interpretation of my analysis. Three main themes were elucidated from the findings: person-centredness, leading change, and collaboration. These themes and their elements are discussed in relation to the research questions that have guided this study.

Chapter Four: Findings and discussion: Health leaders' Understandings of Introducing Health Innovations in Practice

This study used a hermeneutic phenomenological approach to explore innovation implementation in clinical practice. The hospital setting was deliberately chosen as the focus for situated knowledge construction through contextual understandings created by participants as they interacted and made sense of the circumstances of their workplace. The ever-changing background of clinical practice was chosen as it dictates best practice standards that promote evidence informed decisions and as a result requires continual incorporation of new information and innovation. Thus, hospitals were an ideal site to explore the day-to-day learning experiences and insights of health leaders working with innovation and from their narratives appreciate what *leaders have learned from introducing health innovations in practice*.

In this chapter, I will discuss the first theme, *Person Centredness*. This relates to values and to participants' perceptions of patient care being a humanistic caring endeavor that drives action within the organization. This theme is influenced by the sub-themes respect, identity, and messaging. The sub-theme of *respect* reflected the attributes and behaviours of leaders that conveyed feelings of respect. The sub-theme of *identity* considered the sense of a special culture within the organization and people's attachment to that culture. The sub-theme of *messaging* signified the clarity and strength of communication channels within the organization. The findings are presented in combination with my interpretations and synthesis of my literature review.

Person Centredness Theme

Understanding what hospital leaders have learned from implementing innovation in the workplace placed an emphasis on the specificities of context and the implicating factors

perceived by interviewees. The first question for the interview with all leaders was related to key aspects of their culture that contributed to their organization being recognized as one of the best places to work in a provincial survey and as one of Canada's most admired corporate cultures. Nine of the ten interviewees commented on the concept of person-centredness. Interviewees recognized that person-centred care translates to having a person-centred culture to work in and is part of, and as important as, practicing in a person-centred way. The only exception was Donna, who focused more on teams. She thought teamwork was a key aspect of their culture. Person-centredness was embedded throughout the narratives of those interviewed and reflected a relational approach as an important piece of the organization's culture and of innovation adoption.

I conceptualized person centredness as the focus on *person*, which was broadened to include people, whether that was the patient, family, client or employee, as the center of care delivery, which was the purpose of the organization. The theme of person-centredness aligns with a global movement toward implementation of person-centred care (PCC) models to improve health system performance (WHO, 2015; Santana et al., 2017). As a result of the interest in PCC to improve health care systems, scholars have developed several conceptual models of PCC that continue to evolve (Pelzang, 2010; Scholl, Zill, Harter, Dirmaier, 2014; McCormack & McCance, 2006; Kitson et al., 2012). Study findings seem to align most with person as a central component of wholistic care practices, which are based on the humanistic values of respect for persons, individual right to self-determination, mutual respect, and understanding (McCormack & McCance, 2006).

Respondents conveyed notions of person-centredness in many ways. Some responded in a general way as James stated, "we believe we are a healing organization and that we are called

to serve" while others were more direct like Emma, who said "we are all about the people." Comments reflected that the notion of person-centredness is underpinned by values. This was succinctly articulated by Tom who stressed that "…we are a value driven organization" and David, who shared "we're very much values based."

There were shared feelings of the importance of caring in therapeutic exchanges with patients, their families, and with other members of the healthcare team. The literature supports the focus of PCC moves beyond the patient to foster healthy relationship among service users, staff, families, and care givers (Cardiff et al., 2018). Participants felt the foundation of caring relationships was built through mutual trust, shared understanding, and open communication. This was manifested in people's pride and commitment to the organization.

William stated that:

> "…everyone is very proud to be part of the organization, they're very proud of the values of the organization, and so long as those values continue to be forefront, you're going to get very strong support."

Emma shared that:

> "I think the underpinning culture that I see within the organization and certainly something that I espouse to, is that we're here in service of others and that kind of sets the foundation for everything else. Another piece that I think underpins our culture is our values. We're very deliberate about our values, especially as we came together as an organization…our six values underpin what it is that we do."

There was a respect for patients, their individual rights, and for a responsiveness to understand patient needs, abilities, lifestyle, and health goals. There was agreement in the centrality of the patient and their care as the primary focus and driver in healthcare:

David stated that:

> "…we should be looking at the reason we are here, and certainly in healthcare that's the patients. What are they saying and what's important to them? That has to be incorporated into what we provide."

The findings reflected an awareness of the importance among healthcare leaders about organizational culture and climate and the role they have in healthcare provision and patient outcomes. Conceptually, PCC is a model in which health-care providers are encouraged to respect patient values, individual expression, preferences, and beliefs and to partner with them in collaborative action for high quality care (Cardiff et al., 2018). The findings from this study extend the current literature as it explores leaders' perceptions of their role and ability to influence or inhibit the delivery of quality patient centred care. For instance, James stated,

> "the group here recognizes that change is ever happening and that it's not going away and you have to adjust to the fact there is no downtime…when I talk about the culture here its again about service- and sometimes we bite off a lot and that can be quite onerous for our staff."

Studies have explored deteriorating staff morale and quality of patient care and have identified interventions that are designed to improve the healthcare workplace are also likely to improve patient care (Wei, Sewell, Woody, & Rose, 2018). This leads to a common interest in creating safe supportive working environments in hospitals, which has resulted in global recognition of the philosophy and practice of person-centred care as being pivotal to effective models of care (Kitson et al., 2012). For example, reports from the World Health Organization (WHO) suggest people centredness is a requisite value for primary health care approaches, core

competencies of health workers, and a key component required to achieve health for all (WHO, 2007, WHO, 2015).

Health systems are human systems. Person-centred care (PCC) frameworks focus on patient involvement, the relationship between patient and health professional and the context where the care is delivered (McCormack & McCance, 2006). Simplistically, at the heart of person centredness is the personal encounter, the interaction between people. This includes the many individuals, groups, and communities that make up health systems and are central to their existence and functioning. These are the healthcare providers, the patients, the staff, policymakers, and external stakeholders. These individuals and groups influence the health system by shaping the social norms and contexts in which they operate (Sheikh et al., 2014). The findings from this study emphasized leaders' awareness of acting and being person-centred in their role and behaviours as leaders. They expressed the interactions between themselves, as health leaders, and their followers, the workers, need to be person-centred to impact innovation diffusion for better patient care. The findings align with the PCC literature, and build on its central constructs of people centred health systems, with a focus on employee relationships: putting people's voices and needs first, emphasizing people centredness in service delivery, acknowledging relationships matter, and understanding values drive people centred health systems (Sheikh et al., 2014).

Respondents embraced the basic tenets of a patient-centred philosophy and were aware of being diligent as an organization, in its persistent commitment to make patient-centred care a day-to day practice. Betty summed this by stating "overall, people walk the walk and talk the talk and respect the importance of every person here, does a job and has something to contribute."

Person-centred cultures are embedded in explicit organizational values, which in this case are reflected in a shared vision of quality care and underpin the organization's mandate and approach to how they deliver care. Olivia shared "we are very deliberate about our values" and William responded:

> "…we talk about our values a lot- almost every decision we make is sort of judged by those core values and I am very pleased with that and very proud to be involved with it."

Berwick (2013) stresses the importance of leaders attending to frontline work realities as part of their goal of developing quality improvement. However, the literature is inconsistent in how this is done, relative to innovation adoption in healthcare (Cardiff et al., 2018). The findings from this study illustrate a relational link between leadership and innovation adoption in clinical practice, such that the needs and wants of workers relies on individual and contextual factors being accounted for by health leaders. The findings further suggest an importance of human relations in innovation implementation.

Respect.

The sub-theme of *respect* reflected the attributes and behaviours of leaders and include respect for individual values, preferences, and expressed needs. Human resource literature has long recognized that employees are the essential building blocks of any organization and focuses on the people side of an organization (Mellor & Webster, 2013; Conn, Hafdahl, Cooper, Brown, & Lusk, 2009). Traditionally, conventional wisdom was that if workers are satisfied with their jobs, they are more productive. Contemporary organizations have shifted this perspective in their emphasis of creating psychological healthy workplaces, in which an organization's culture emphasizes (a) trust and respect among members of the organization, (b) views employees as assets and values their contributions, (c) communicates regularly with employees, and (d) takes

employee needs into consideration when designing new initiatives (Grawitch, Ballard, & Erb, 2014). Health leaders are mindful of creating synergies between organizational effectiveness and employee health and well-being (Grawitch, Gottchalk, & Munz, 2006). Person-centredness is a practice that fits with this goal as it has been identified as a key aspect of healthy positive work environments (Manley et al., 2011; WHO, 2015).

These sentiments were evidenced in the valuing of employee contributions, recognition of employee career aspirations and goals, and employee empowerment. Interviewees commented on the merit of customizing support for employees as they participated in innovation implementation as a means to promote employee engagement and uptake of an innovation. When I asked Betty to expand on what mattered to staff, her response was "a closer more human connection; I think people still do really respond to that if they genuinely feel you are interested." In the past, people were typically expected to fit into the routines and practices that health organizations felt were most appropriate. A shift in thinking to person centredness, promotes more flexibility within organizations to meet people's needs in ways that better suit the individual (McCance, McCormack, & Dewing, 2011). There is a well-documented link in the literature that the creation and maintenance of healthy practice environments to positive patient care outcomes, the reduction of adverse events, and improvement in the retention of clinical practitioners (Institute of Medicine, 2011; Manley et al., 2011; Mellor & Webster, 2013; Rosen et al., 2018). There were other responses that demonstrate leadership caring and respect of the individual needs of workers and value in their role and responsibility for developing healthy relationships with co-workers.

Mary commented that:

> "…hopefully, I'm making an impact in the staff I'm investing in. The more I can empower staff to be their full selves, the better. Seeing them grow is so satisfying."

Jennifer shared that:

> … "don't go driving on empty; gas is cheap. It's surprising what a network you can develop and how important those relationships can be."

There was respect for authenticity in relationships for better working conditions. Mary shared "the culture, here in this building, is super friendly and very positive. It doesn't matter what your job is here, everyone smiles and takes the time". Whereas, Olivia stated that:

> "I think humanizing yourself to those you lead is important. Some days I'm not 100%. It's okay to let people know that today I can't make time for you, but I can tomorrow."

Authentic leadership practices are driven by values, beliefs, emotions, and a self-awareness of ones' ability (Avolio & Gardner, 2005). The findings suggest respondents' act in ways that reflect person-centred values. When I asked James what he would say to another leader asking how to create a best place to work organization, he responded leaders need to be authentic. Authentic leaders know who they are, what they stand for and demonstrate that in their relations with employees (Walumba et al., 2008). James illustrated this with his words "…when I am doing my best work, number one, I am there, I am real, and I am present." There were other comments that illustrated the emphasis on people and how they were valued in the organization. The findings reflect being compassionate, thinking about things from the other person's point of view and being respectful were considered.

Emma reported that:

> "Respect your people, everyone has something to contribute, sometimes all you have to do is ask."

Similarly, David stated that:

> "…look for opportunities to help people reach their potential."

It was evident that in many cases, people's interests, abilities, and experiences were acknowledged and encouraged by leadership. James stated that:

> "It's not just the different generations but the different levels in an organization and they all bring skills and expertise and they bring their own wisdom. Maybe the HCA has 25 years of experience, the RN 1 year and the LPN is 10 years. It has more to do with their experience. It's not really the generation they are. It's about the wisdom that the experience has brought to their practice."

However, although leaders recognized the importance of valuing people in the organization, they admitted this was not consistent across all units. Tom stated "as a front-line manager, there are two cultures. I have my unit culture and my management culture." He felt more aligned with the unit culture which was "very strong, and overall, I find it very positive." Whereas, he stated "I find the management culture more challenging and I don't find it always terribly supportive. I don't find as a group of management we are terribly positive." There was realization that culture shifts from unit to unit and may have different norms. Betty mentioned that "it [culture] certainly can shift at different sites and in different departments but there is always a background flavor that is there." James stated culture is also influenced by how people came together on a unit and the assumptions they hold; "there is a historical piece to some of the units and what that means to people working there." The findings from this study build on Helfrich's et al., (2007) study of innovation climate and fit within a setting and extend Woiceshyn's et al., (2017) argument of integrated implementation of complex innovations in acute health care require local customization. Helfrich et al., (2007) drew attention to the centrality of management in

developing a favorable implementation climate that was manifested by the perceived fit of an innovation with organizational and professional mission, core competencies, and experiences. Woiceshyn et al., (2017) identified "when standardization of a complex innovation across different sites is mandated, local customization within a framework of general guiding principles is important" (p.85). Respondents in this study recognized a difference in how units and the people working within them functioned across the organization, which can influence innovation adoption and thus needs to be considered as part of implementation strategies.

Betty thought integration strategies for innovation across units were not ideal. She stated the process usually starts with "somebody in Edmonton who comes up with something that wants it rolled out everywhere, but it doesn't fit everywhere and it's not actually what everywhere needs." In this study, leadership commitment that supports innovation was demonstrated through leaders' relational behaviours with workers. However, the findings suggest tensions exist when leadership does not value staff or when staff perceive they are not valued. This dissonance in value was associated with workload, inadequate resources, and overwhelmed staff. Mary reinforced the need for leaders to support change by "making a long-term investment in innovation culture" rather than providing limited resources for innovation. David echoed this when he shared a story of implementation that was supposed to ease workload but actually created increased downstream workload that was unintended because "more resources were not allocated to support managers with the integration of this innovation."

Seven of the ten leaders commented they believed overburdened staff who are constantly asked to do more while being provided with reduced support and fewer resources become resentful, disengage from the workplace, and may eventually leave to work elsewhere. Betty stated "…it's almost, to me, a safety thing. People do not feel safe at work because of the

pressures." The healthcare workforce is dealing with rapid changes, which puts stress on workers and leadership, increasing the likelihood of deviant workplace behaviours (Canadian Nurses Association (CNA) & Canadian Federation of Nurses Union (CFNU), 2015; Logan, 2016). Betty stated "you know sometimes I find nurses to be quite judgemental people and I don't think they come into it being judgemental people. I think the pressures of the situation do that." She proceeded to tell me of nurses that are hard on new hires and expect too much. She thought people are stressed and therefore there was a "lack of gentleness, and empathy, and ability to support." The importance of dealing with dissonance and conflict in the workplace was surprisingly absent from the respondents' narratives. Similarly, knowledge on the role of workplace stressors on innovation implementation behaviour is limited in the literature (Fay, Bagotyriute, Urbach, West, & Dawson, 2019). Healthcare is known to have hierarchal structures which promote power inequities, ego, and degrees of autonomy and independence (Nugus, Greenfield, Travaglia, Westbrook, & Braithwaite, 2010). Moreover, it is understood that poorly managed workplace conflict has a negative effect on employee learning, productivity, and job performance. Donna thought in many cases variation in behaviour is tolerated as typically healthcare has historically been "provider centric." Poorly managed conflict has the potential to have negative human capital costs for organizations as bullied or oppressed personnel often disengage from the workplace, which can lead to patient errors, loss of productivity and increased staff turnover (Edmonson et al., 2017). Donna argued a reorientation underpinned by patient safety and person-centredness "helps reduce variation as the workplace is getting used to innovation being rolled out the same way - under patient safety" as the guiding framework. She also felt strongly that as part of the patient safety and person centredness orientation "we need to stop rewarding people for work arounds" and for poor behaviour as "we change our language

and the way we look at things." Although, bullying was not reported, Betty's story highlights incivility in the workplace, which includes destructive and harming behaviours of disrespect and degradation that occur within and among health professions and can occur top down, bottom up, and horizontally within teams (Edmonson et al., 2017).

Implementing innovation across an organization requires coordinated activities between individuals, teams and layers of the organization; all which have potential for effective conflict management strategies (Helfrich et al., 2007). James thought "if you can't create a vision and you don't know what plan you are following; nobody is going to follow you or want too." Tom stated, "all things flow south" meaning that frontline workers feel the brunt of many pressures and he cautioned that "it's your frontline worker who can make or break your organization" and it is important "to understand the limitations of people" so as not to overburden them. The findings support negative workplace behaviours can be born out of conflict for resources, authority gradients, gender struggles, generational differences, value differences, power struggles, and learned patterns of behaviours (Edmonson et al., 2017; Men & Stacks, 2014). Betty commented changing behaviours requires a concentrated sustained effort but felt "everybody is so stretched" and there "wasn't anybody on the floors who can actually lead culture change and behaviour change."

However, Fay et al., (2019) argue innovation implementation is an adaptive mechanism for an organization to deal with work place stressors. These authors state "the dearth of research for innovation implementation does not yield a conclusive picture… to understand if and how occupational stressors affect innovation implementation" (Fay et al., 2019, p. 12). Positioning an organization and people for adaptability requires system and process innovations as an effective way of dealing with challenges facing healthcare organizations (Woiceshyn et al., 2017; Rosen et

al., 2018; Uhl-Bien & Arena, 2018). William thought placing innovation into the core of the organization's thinking "changes the conversations" and shifts the whole dynamics about looking forward and what solutions will sustain the organization for the future. Fay et al., (2019) argue implementing innovations may be a means to change stressors, like work demand, unless the worker perceives the stressor unchangeable. However, their study was inconclusive in its results about role ambiguity, role conflict, organizational commitment, and psychological strain as mediating contextual factors for implementing innovation (Fay et al., 2019). They gave the example that in some cases a trustful relationship with a supervisor may result in role conflict being appraised as changeable and in non- supportive work contexts, role conflict may be negatively related to subsequent innovation implementation but may not be significant when shared with other stressors (Fay et al., 2019). In this study, the stories shared by both William and Betty, highlight positive trusting relationships between leaders and staff are pertinent to innovation implementation if they are perceived to be genuine.

Innovation implementation is a multifaceted organizational endeavor, that touches on many aspects of the work environment. Various characteristics and stressors of setting may have immediate or latent effects on worker attitudes and behaviours for innovation adoption (Axtell, Holman, & Wall, 2006). Hospitals are often faced with challenges of providing quality patient care, while dealing with staff shortages and fiscal restraints (Patient Engagement Action Team, 2017).

Betty shared that:

> "…we can barely staff because the staff are so exhausted - they're phoning in sick. If I ask them for one more thing, they literally are going to kill me. We can't add one more thing".

Olivia thought people are overloaded at work:

> "One of the learnings and the difficulties on an ongoing basis is that we don't have enough leadership or that leadership is overburdened with a myriad of things they have to do. So, every next thing becomes the tyranny of the urgent. You forget or you don't have time to do that check in or it falls off the side of your desk."

Betty's comment sheds light on the disconnect between leadership and workers. Workers in the organization are feeling strained, as evidenced by comments made by Betty, Olivia, and Tom, however some leaders are reluctant to view this as conflict in the workplace. People centredness focuses attention on providing space, opportunity, and attention to people's voices, which influence and shape the organization; with the goal of creating mutual trust, dialogue, and reciprocity for effective quality patient care outcomes. Respect for patients, colleagues, and other staff in the hospital helps contribute to building safe, empowering, and satisfying workplaces.

The findings concur with studies showing healthier work environments promote satisfied staff who perform better and have higher patient care outcomes that increase organizations' capabilities (Wei et al., 2018; Gershon et al., 2007; Nolan, Davies, Nowell, Keady & Nolan, 2004;); and respect promotes employee participation and involvement (Stievano et al., 2016). The findings build on and extend the notion that leadership support and innovation values fit contribute to an organizational climate for implementation and local customization of implementation plans acknowledge the differences across organizational units inherent in healthcare (Helfrich et al., 2007; Woiceshyn et al., 2017). However, it seems although leaders understand the concepts that build healthy workplaces, they are reluctant to intervene and address the root cause of why workers are feeling overwhelmed. Betty demonstrated this when

she stated, “staff are so exhausted they are phoning in sick.” Promoting employee empowerment, engagement, and interpersonal relationships at work are fundamental pieces in building positive workplaces and so are leadership behaviours that convey respect. Leaders have to do more than just be active listeners, they must be open to feedback, see what is happening around them and take action to change the situation and address the burden that has been placed on workers (Rogers, 2003; Sheikh et al., 2014).

The omission, from respondents, of conflict existing in the organization or being an element of innovation implementation that most leaders’ typically face in the workplace is common in healthcare (Uhl-Bien & Arena, 2018). The findings reflect the unfortunate trend that incidents of incivility, bullying and conflict are under-reported in healthcare (Kvas & Seljak, 2014). Leaders have an obligation to account for and recognize the harmful reality of ignoring conflict or disregarding deviant workplace behaviours (Gittell et al., 2009). Effective hospital governance includes management of conflict (Bakker, Albrecht & Leiter, 2010) The literature on conflict management in healthcare often focuses on clinical leadership as it is the frontline interface with patients and is the main point of contact with the health system (Siriwardena, 2006; Howieson, & Thaigarajah, 2011). This study suggests engagement with the broader organization is impacted by conflict in the workplace at all levels of the organization, not just the frontline. Senior level leaders, middle management, and clinical leaders all expressed being overwhelmed. Olivia’s comment that leadership is overburdened, reinforces there is strain at all levels in the organization. This strain was seen to impact people’s capacity to take on more work, which impacted their capacity to adopt innovation.

Identity.

The sub-theme of *identity* reflects the sense of a special culture within the organization. I defined identity as leaders' perceptions of organizational culture and organizational identity. The interviewees, in general, reflected a sense of pride in the organization and of the organization culture being unique. There was an appreciation that people who worked there shared the notion of having a calling, which was caring for those they served and for striving for excellence in caring.

These shared values form an identity for a collective group of members who form and compare themselves with others, most notably competitors (Corley et al., 2006). Reputation takes into account external perceptions of the organization (Corley et al., 2006; Gioia et al., 2014). The notion of identity is important to an individual's work and to interprofessional teamwork. Studies have found work identities affirm individuals' self-vision to guide work (Ashforth, Harrison, & Corley, 2008), foster motivation for work (Cummings et al., 2010), bind people to a group (Eckel & Grossman, 2005), increase organizational commitment (Finkelstein, 2011), create cooperation with the group (Hutchinson & Jackson, 2013), improve worker well-being (Horton, McClelland, & Griffin, 2014), and allow teams to integrate diverse experience and expertise (Maura, Lettieri, Radaelli, & Spiller, 2013). Olivia explained the difference or their organizational identity as being "mission centric, we hold people at the centre of all we do, to ensure we are caring for them body, mind, and soul." Every interviewee commented on there being a feeling of uniqueness within the organization. However, it was difficult for some to articulate exactly what made them so special.

Tom stated that:

"There is something about this place, I was asked about that years ago as well and you can't necessarily put your finger on it."

William shared that:

"I've been told by many people I know that there's something different about the way I was treated there."

There was a shared sense of providing a superior level of care and of people within the organization being a dedicated community of workers providing quality patient-care. This claim about a central and distinctive feature of caring in their organization is a referent to the person-centred culture of the organization. Peoples' commitment to human caring was evidenced in their sense of community, a feeling of belonging, and the importance they placed in connecting with and knowing people at work. There was a sense that people, teams, and groups mattered and were brought along the change journey together with the implementation of initiatives. This too resonated with peson-centredness as being central in-service delivery and creating capabilities to best respond to people's health care needs (McCance et al., 2011). Betty conveyed her value of persons in her statement; "you pick the team that builds you up and who wants you to be the person who you want to be at work." Jennifer had a shared sentiment, she commented:

"…building a sense of community, encouraging that sense of belonging and that we all have a purpose and value here- what we're doing is adding to the patient experience."

Donna similarly shared,

"in order to understand the culture, change that is needed, it is important for you to understand that we have a team that is unique in Canada."

Worker dedication to care excellence was seen as a great motivator for innovation adoption and for creating a work culture of innovation. Mary echoed this in her response, "I

involve the entire unit in striving for excellence." This value of excellence was seen to drive people's decisions within the organization and contributed to system reform and innovation adoption. James placed value in the learning aspect of the organization's culture. He commented that "…we create an environment where great minds can create great things" and "where people are motivated to learn." Jennifer encouraged people to share ideas as a way to create opportunity. She perceived that leaders should "engage people in conversation; there is collective richness in the community in terms of ideas and opportunities."

Mary reported:

> "Not one of us holds all the answers. Keep your connections, keep your relationships strong and abundant. If we connect people with others who are having similar thinking, we will be able to pull our organizations forward."

One of the competitive advantages of the organization is its perceived uniqueness of excellent caring that sets it apart from other organizations. There was unanimity among respondents of a distinct person-centered culture of the organization, which imbued a feeling of compassionate caregiving. Having a strong sense of culture provides a structure that guides individual behaviours and manages organizational knowledge competence (Schneider, Ehrhart, & Macey, 2013). Effective leaders demonstrate their commitment to excellence by putting core values of the organization in action. The findings suggest organizational contexts affect worker and team identity and organizational change (Cain et al., 2019). There is missed opportunity in leveraging the *brand of excellence* in the organization and its dominant cultural philosophy to drive innovation and to weave these shared beliefs into positive implementation strategies across the organization. Only William commented on brand appeal and using their caring uniqueness for competitive advantage. He stated, "we have to be known for something, we have to have an

image, this is how we demonstrate our value and it also allows us to do the things we have to do."

Culture is a powerful element in shaping work behaviours, relationships, and processes. Cultural fit can be defined as how well an employee expresses and exhibits the characteristics, norms, and values of an organization (Schein, 2010). In healthcare, frontline workers make up the bulk of the workforce and are largely considered the face of the organization. How they express and exhibit culture is manifested by their actions in the workplace. Some respondents connected values, culture, mission, and mandate together as a driver for organizational action. Others simply concentrated on their perception of most people within the hospital being caring and was the source for their uniqueness as an organization. Collectively, this narrative of a unique identity shaped how workers present themselves within and outside the organization and helped build its reputation as being caring and patient-centred.

However, the findings from this study suggest respondents do not have a clear understanding of the importance of what I have interpreted to be their *caring* brand by their inability to define specifically what makes them unique. There appears to be s a gap in leaders' identifying the organization's identity or image, as William stated, as a driver for innovation and how this institutional cornerstone is actualized for quality patient care. Cultural cues help workers make sense of changes and are signposts where leaders can influence and use for innovation adoption (Mannion, Davies, & Marshall, 2005). Identity claims can be used to facilitate the acceptance and assimilation of new beliefs and practices associated with innovation, by drawing on shared expectations and assumptions about what is appropriate in the provision of excellent care and the importance and value of supportive care for positive patient outcomes (Umberson & Montez, 2010; Watson, 2006). An organization's corporate brand presents a

guarantee of the quality of services to its stakeholders and has important communication value for internal staff, which act as the hospital's testimonials (Esposito, 2017). Moreover, if the cultural fit of the organization doesn't fit with that of the broader health system, there is opportunity to leverage their uniqueness for wide-ranging implications and revision that shapes and influences greater system reform.

Messaging.

Clarity of communication is key within organizations and helps convey expressions of care excellence. Schein (2010) identified an organization's artifacts and language are important aspects of building its culture. Clear and consistent communication was perceived to be important in facilitating innovation adoption across the organization. The findings suggest when employees feel out of the loop in the implementation process, they were less likely to embrace change polices. This was thought to be due to a lack of understanding of the need for innovation, how it aligns with the organization's mandate, and its impact on patient outcomes. Mismatched messages affect employee perceptions and can impact morale, fuel gossip, and promote worry if they feel different units or people are being told different messages. Healthcare leaders must understand the root causes of problems and how they undermine implementation efforts to treat them at the source and to avoid negative spirals that impact organizational morale and efficiency (Cleary, du Toit, Scott, & Gilson, 2018). Ihrig and MacMillan (2017) argue interconnected ecosystems like healthcare agencies have multiple stakeholders, in which not all are equally important nor have the same value in reshaping the ecosystem. Each stakeholder has an agenda and how leaders manage those is important. Identifying stakeholder tensions facilitates understanding where stakeholder needs clash with others, which of them exercises the most

influence on transactions in the ecosystem, and which strategies are best to manage or mitigate them (Ihrig & MacMillan, 2017).

For some people, believing from the outset that the innovation can produce positive outcomes or observable gains, can help people to embrace it. Tom shared:

> "I think for my team to accept them [health innovations], I have to understand it very well. If I don't then how do I 'sell it' to the frontline? I have to get it first so when my staff come to me, I have actually drank the Kool aide, and can influence them and be effective. I need to get buy in so that staff can. I bring it to them."

Gesiler (2012) argues the leader is often the first to identify the value and purpose of innovation and can thus increase the likelihood of staff buy-in. Units that implement shared governance strategies for innovation facilitate worker autonomy, accountability, and a sense that their needs are included in decisions that impact their practice (O'Connor & Kotze, 2008). However, the findings build on literature suggesting leaders too often think of needs in terms of organizational processes and functional units, which is different from workers' (Ihrig & MacMillan, 2017).

For workers to embrace innovation, they must first recognize its value (Rogers, 2003) For some respondents, this was recognized by the interest in or lack thereof, and degree of leadership commitment towards an innovation initiative. If people are convinced that the proposed innovation will improve patient care, make their job easier, and is the right thing to do, they tend to be more inclined to invest their time and energy into it. This reflects workers' perceptions of the organizational environment in fostering readiness for change (Eby, Adams, Russell, & Gaby, 2000). *Change readiness* is a term from organizational change literature that refers to how organization's create readiness for change before attempting change (Schein, 2010). In the PARIH framework, a critical job of leaders is to facilitate change readiness in an organization

(Stetler et al., 2011). Communication fosters change readiness and promotes clear messages about innovation and its value is being imperative. Emma reflected:

> "…likely there is a gap, barrier, obstacle that is keeping people from achieving what they wish to achieve, so once we look at that and help those who are affected by the change, bringing them along in the journey…and understanding the compelling reason for the change…if there is not an issue than the likelihood of not adopting goes down."

David also remarked that a key lesson he has learned about innovation implementation is getting buy-in. He stressed:

> "you have to develop a compelling case as to why they should change or something that echoes or resonates with them, I think they in fact will do it. You're always going to get people who resist but you have to have a compelling case."

Jones, Jimmieson, & Griffiths (2005) argue workers who perceive strong human values in their organization, report higher levels of change readiness, which in turn is predictive of change implementation success. An applicable compelling case for innovation implementation would be one that mediates the relationship between person-centredness and system adoption and use of innovation.

Emma thought for people to buy-in, to innovation adoption, "they need to feel empowered and really in control of their situation as much as possible within their scope." Mary thought it was important to have naysayers involved in the implementation process as they keep you grounded by having diverse views. She remarked; "resisters have good questions that need to be answered to move forward." Naysayers and resisters are workers who typically have negative feelings toward innovation, control of the process, and are not ready for change (Jones

et al., 2005). These perceptions are often due to lack of perceived value of the innovation and a belief that it was not necessary, doesn't have practice efficacy, sufficient support, and would not be beneficial to themselves or the organization (Holt, Armenakis, Field, & Stanley, 2007). At the time of the interview, I did not delve further with the respondent about when or if leaders stop an innovation strategy when stakeholders are resistive.

The findings suggest removing barriers involves engaging in dialogue with workers to better communicate strategic alignment of innovation with quality patient care. However, the gap or barrier may also be the benefit of innovation doesn't measure up for some workers. Betty implied this when she commented "I always like roll my eyes, with the thought of more" initiatives.

Oliva commented she thought many parts of the change management process are often missed in healthcare. She clarified this by stating:

> "…we sometimes think it's a better idea so therefore people should and will adopt it…but they have to be aware of what that change is and fully understand what that is, they have to have a desire to do it- you really need a vision and motivation to excite them to change."

Change management frameworks help organizations guide innovation implementation across their agencies. The development of an implementation plan supports innovation processes, tools, activities, tracks progress, and evaluates performance (Bauer, Damschroder, Hagedorn, Smith, & Kilbourne, 2015). Implementation plans are critical for identifying innovation purpose, allocating resources and aligning organizational change with strategic objectives (Glegg, Ryce, & Brownlee, 2019). The findings suggest the decision to implement innovation comes from senior leadership. All respondents shared the sentiment that leadership

creates the vison for reform that facilitates excellence in patient care delivery and a way of thinking about innovation within the organization. Priorities for innovation were most often driven through quality initiatives with the purpose to enhance patient care. Although these priorities were understood by senior leadership and the purpose of innovation was clear to them; the reasoning was less explicit for workers. There was also less consistency, among respondents, about the best leadership practices to communicate the importance of innovation for better patient outcomes and how best to share and distribute them across the organization. Three interviewees thought deliberate space and time for communication was imperative during innovation implementation. Donna surmised this in her comment "there has to be sacred space for people to communicate freely and openly." Emma reinforced that "checking in with people to update them on where the idea is; that's huge." While Tom stated, "asking them their suggestions for making it work instead of coming at them with an approach" was key to facilitating open communication channels among staff.

Healthcare organizations are faced with increasing diverse challenges, such as financial instability and workforce reductions, which are layered on internal change processes and innovation practices. Wright (2016) found health practitioners cannot take on extra work seamlessly. The added burden influences organizational culture and affects staff who report greater symptoms of burnout, anxiety, and lower morale. The findings suggest existing organizational capabilities and resources was an area that needed to be addressed in order to create readiness for change. Competing initiatives, limited resources, and decreased capability to take on more work were seen as negative influences on innovation adoption. Although, an emphasis on integrating quality patient care in hospital innovation processes and structures was perceived as beneficial, the findings add to the literature, suggesting the impact of negative

influences on individuals' actions and behaviours were significant to the wellbeing of healthcare practitioners and patient safety (Hall et al., 2016). As a result, communication interventions and strategies to help reduce anxiety and burnout among healthcare practitioners was becoming a significant priority for many of the healthcare leaders in this study. Similarly, was the ability to calm tense situations and bring people from divergent views together toward positive engagement. Proactive strategies to mediate limited resources and organizational capabilities for innovation implementation were narrowly refocused on reward for people involved in innovation and endorsement of creative ideas that improve outcomes and care of patients. These strategies from the findings were seen to help alleviate feelings of emotional and physical burnout amongst staff. Olivia, Betty, and David contributed that sharing the failures and celebrating those were equally important for enhancing communication about innovation strategies and recognizing the work and engagement of people across the organization. This was demonstrated by Olivia's comment,

> "celebrating with the team when they have taken on the change, whether it is successful or not. People have taken it on, tried it, that needs to be celebrated. If you don't celebrate the failures, who is going to take the risk, if they are not going to be recognized for just taking a chance."

Although a compelling case for innovation may exist, David thought it was important "to understand the limitations of people and you have to respect that people have intelligence, suggestions and common sense" about what and how they are able to contribute. Limitations were also framed from personal experience. Betty stated that "work life balance is important for me and my team. Just because I signed up to be a manager doesn't mean I gave up my work-life balance." Knowing your people, includes their career ambitions. Zacher (2014) argued career

success is the positive work-related outcomes one has as a result of work experiences. The literature supports the positive effect of transformational leadership includes willingness of the workers to exert extra efforts at work because of leaders' behaviours (Andrews, Richard, Robinson, Celano, & Hallaron, 2012; Cummings et al., 2010). The findings suggest tensions existed between the levels of leadership in the organization in that positive work experiences were not uniformly shared among leaders. It seemed the further down the leader hierarchy structure a person was, the less positive their view became. This was evidenced in Tom's views of the management culture not being supportive or overly positive as compared to James' more positive orientation.

Some participants commented on the sharing of learning stories, successes, and failures of innovation implementation as critical to learning about innovation and knowledge mobilization. Communication mechanisms needed to be better in identifying opportunities and recognizing milestones. Olivia echoed the notion of celebrating failure as part of learning to be better:

> "We need to ask; did we make the change? Did we really make an impact on the people we are serving, and if it made a positive change, how are we going to push it further? If it didn't make a positive change, how are we going to course correct and get that information out there? I don't think we share the failures as easily as we share the successes. They're just as important. We learn just as much from failures as from successes."

Tom gave the example of *Path to Home*, an innovative re-design of service delivery within acute care sites, as an example of improvement after failure and how sharing of that failure of

innovation may impact patient care by changing implementation practices within the organization.

> "Initially, the original *Path to Home* was not terribly successful on surgery. It was a medicine programmes. So, we '*surgified*' it, we called it *Path to Home 2.0*. We got realistic - doing bedside reports with the patients - many were not too happy to be woken up at 7:30 in the morning. We needed to acknowledge that our population of patients' needs rest. So, we changed it. I don't know if it's seen as a failure and I don't think necessarily it should be."

This scenario illustrates not implementing innovation may at times be more beneficial to quality patient care. At the very least, it supports the notion of local customization is warranted when integrating complex innovations in hospitals (Woiceshyn et al., 2017).

Strategic change initiatives require clear communication of the implementation plan that starts with a compelling reason for change and links to organizational values, culture and mandate. The findings suggest change readiness was demonstrated in worker's engagement and behaviours for integrating innovation in practice (Eby et al., 2000; Schien, 2010; Rogers, 2003). Respondents perceived leaders' influence worker buy-in for innovation adoption by promoting successes (Bass & Riggio, 2006); remove or mediate barriers (Holt et al., 2007); and facilitate organizational capabilities and support (Uhl-Bien & Arena, 2018). Internal and external message clarity informs stakeholders and facilitates strategic strategies for innovation diffusion (Ihrig & MacMillan, 2017). Although leaders sought to align the benefits of innovation with culture, and values of patient-centred care, with communication efforts. The findings suggest not all stakeholders understood the reason for change and innovation implementation mediocrity or resistance was the outcome.

The findings suggest in some settings when innovation initiatives are not seen as positive or beneficial to workers or patient care, they may be changed as illustrated in the *Path to Home* story. There are opportunities to enhance communication strategies within the organization. The findings also suggest innovation messaging dilutes as it is diffused through the layers of the organization, including within the leadership team.

Summary of Person-Centredness Theme

Perceptions from leaders' and what they have learned about innovation was that it brings change, and from the findings we can see not all change was perceived to be positive. It was reflected the nature and type of innovation combined with the associated communications about it forms the evidence for change. Evidence had to be compelling, align with the organization's person-centred culture and values and be clear to get buy in from workers. Applying the construct *evidence* from the PARIHS framework, the most successful implementation occurs when evidence is robust, and practitioners agree with it (Rycroft-Malone et al., 2013). In this study, agreeing with innovation ultimately meant it supported worker values of patient centredness and with their *calling*, providing compassionate excellent patient care. Leadership was tasked with creating a person-centered culture. This focused attention on a shared understanding that health systems and organizations are social institutions, wherein the actors come together in a network of relational associations. This lens has potential to shift the ways in which change is managed in the organization, placing greater emphasis on effective management of relationships, networks, and teams (Sheikh et al., 2014).

Change requires the disruption of systems, patterns of behaviours, and practice routines. The findings support ways that leaders focus on relational aspects of innovation implementation are by providing a clear vision of the benefits of innovation diffusion with explicit advantages

that outweigh the challenges and pains of implementation. Disjointed and unclear communications about the benefits of innovation create unease and confusion for workers. Similar to Roger's (2003) diffusion of innovation theory, which outlined motivation for adoption can be impacted by the meaning that an innovation holds; study findings revealed when people cannot interpret a connection between an innovation and its value, they have difficulty associating meaning with it and are less likely to endorse its use. Effective leadership excites the potential and usefulness of innovation. Leaders can do this with shared understanding of the complexities and appreciation of the context and the differences of the people they lead.

Congruent with the large body of research from the field of organizational leadership, my findings affirm leadership is an important influential factor in shaping an organizational culture of innovation (Schein & Schein, 2018). Person-centered approaches nurture a climate where socially shared values and respect are evident in practice, procedures, and behaviours of patient care (Schneider et al., 2013; McCormack & McCance, 2006). Understanding the context and the people interacting in that context is significant to developing effective organizational structures and systems for innovation implementation (Frampton et al., 2008). Furthermore, the findings reflect supportive management and staff perceptions of having effective leaders facilitates a climate associated with care excellence that embraces innovation (Aiken et al., 2008; West, Topakas, & Dawson, 2014). Although the organization was recognized nationally as an exemplar workplace, leadership seemed unaware on how to capitalize on this achievement and on its unique culture of caring to mobilize actions for greater innovation diffusion and broader healthcare reform.

The essence of what leaders have learned about innovation implementation was it's about the people. Drawing on the PARIHS framework for implementation, this study underscores the

importance of leadership in facilitating contextual readiness for innovation implementation evidenced by demonstrated leadership behaviours, actions, and attitudes that reflect organizational receptivity for innovation (Rycroft-Malone et al., 2004; Stetler et al., 2011). This study emphasized the relational interaction between workers and their patients, drives their purpose of caring. The relational aspect between workers and leaders, drives worker purpose of engagement and supports their work identity and binds them to the organization. The findings build on Bradbury & Lichtenstein's (2000) suggestion that the work of innovation occurs within the space of interaction between members of the organization. Positive relational interaction was seen as a key element of leadership support and facilitation of innovation implementation and adoption within the organization.

The dynamic complex world of healthcare creates instability, fleeting connections, and ambiguity. The shifting landscape makes it hard to find consensus or sustain collective meaning in many areas of the workplace. In order to interact well and function together in this reality, people require mutual respect and understanding. People need to feel valued and supported. The challenge is how this is conveyed within relationships and demonstrated within the larger organizational context. Scholars of person-centred care (McCormack & McCance, 2006; Kitson et al., 2012; Sheikh et al., 2014) describe a theory that was found difficult, in this study, to translate in practice. This study highlighted that although leaders seem to be aware of the importance of person-centredness, the relationships between leaders and workers and the context in which care is delivered impacts their ability to consistently actualize person- centredness and leadership often falls short in fully acting upon its value with workers.

Chapter Five – Findings and Discussion: Health Leaders' Understandings of Acceptance, Adoption, and Integration of Innovation

Health care innovation can improve patient outcomes. Enabling system change involves removing barriers and facilitating processes that create acceptance, adoption, and integration of innovation in health care organizations. Better understanding of how leaders facilitate innovative process changes to achieve knowledge mobilization for improved quality patient care underpins the findings and discussion of this chapter. With this brings attention to leadership and how leaders operationalize the organizational innovation agenda within the workplace. In this chapter, I discuss the main theme: leading change, which reflects the meaning and sense making of influencing others for innovation adoption. This theme is broken down into three sub-themes. The first sub-theme is collective leadership style, which reflects the leadership approaches of leaders and their development practices. This sub-theme discusses the shared and distributed leadership approaches used in the organization, the coaching and mentoring of new leaders, and the strategies respondents felt were important for adapting to and dealing with the challenges faced in clinical work settings. The second sub-theme is learning organization, which reflects the tools and strategies for managing meaning of innovation and how it translates for improved patient outcomes. This sub-theme included respondents' thoughts on evidence-based practice, technology and innovation, continuous professional development, communities of practice, and teamwork. Lastly, the sub-theme deliberate action, reflects the purposeful actions of leaders. This included the clarity and strategic intention of innovation implementation that leaders demonstrated and explicitly conveyed through governance structures and processes.

Leading Change Theme

Understanding the meaning of effective leadership and the sense making of influencing others for innovation adoption that benefits patient care, reflects the theme of *leading change.* Respondents agreed that leadership was an essential element of innovation implementation. Leadership encompasses the abilities and competencies necessary to create a powerful and inspiring vision, build trust and cooperation within the organization, and demonstrate credibility (Massod & Afsar, 2016). Leadership sets the tone for creating an organization that embraces innovation and change (Lichtenstein et al., 2006: Jung, Chow, & Wu, 2003). Based on the PARIHS framework used in this study, transformational leadership was used as a starting point for understanding leadership practice, as the framework proposes transformational leaders work with and influence their employees to implement change (Rycroft-Malone et al., 2004). The findings support transformational leaders create a vison for their followers and guide the change through inspiration, motivation, morale, and performance (Bass & Avolio, 1994; Weberg, 2010). Betty surmised this in her statement "to my way of thinking, based on my years of experience and my life experience too, the leader, if they are a good leader, paints the picture, they point [people] in the direction that you are going to go in." David felt the focus of his leadership style was people and this compelled him to engage with and motivate those he worked with for improved patient outcomes. He stated, "we're all about people…that's what we lead with."

Effective leadership demonstrates accountability, has clear roles, and applicable governance in managing change (McDonald, 2014). Study findings build on the work of Apekey, McSorley & Sirwardana (2011) who argue leadership practices for innovation include leaders who have an inspiring vision and challenge the status quo. Leaders who place innovation at the core of the organization's thinking change conversations, alter processes, and shift the dynamics

of where and how to grow and sustain for the future. These people subscribe to a futuristic view with service as its main driver. William perceived "leaders need to look ten years out, to see what's needed. In healthcare, in this province, we haven't done that and we're already behind.' In Alberta, the restricted government funding for infrastructure that supports technological advancements has resulted in the inability of healthcare agencies to keep pace with need (Institiute of Health Economics, 2015). These external influences were commented on by respondents and viewed as constraints in their ability to facilitate innovation diffusion across their organization. James mentioned that "we basically just got Wi-Fi within the building, so Alberta has the bare basic for technology." Tom also commented, "we have space constraints to have new technology. Units are not built to support our business flow through with patients." Emma stated that "we have a pretty manual system; we haven't kept up to the many technological advances." However, although she felt this was mainly due to inadequate resources, she also felt "not having a clear strategy on how to move everyone forward" was also a reflection of where the province was at the moment. She was optimistic about the imminent release of the province wide ConnectCare, which she felt would be "a game changer in how we do business. It will allow people to really use and integrate technology in clinical practice."

Regardless of dated infrastructure and system limitations, respondents felt developing a vision and goals for the future were important and essential roles of healthcare leaders. As William stated, "leaders have an obligation to be current and futuristic." David shared the common perception that leaders "are problem solvers, who need to look at the horizon and see what the trends are, what's happening in the world around us, and what then should we be doing and how does that look." Tom echoed this by stating "leaders should have the ability to look around the corner. To ask, where are we going to be in five to ten years and how are we to get

there?" To accomplish current tasks and negotiate interpretations of future challenges and innovative ways of managing them, increasing emphasis is being place on leader confidence and capacity to recognise and respond to what others might offer in working together in a team environment. The next section explores leaders' thoughts on collaboratively guiding the organization in innovation adoption.

Collective leadership

Collective leadership reflects the leadership approaches leaders used for working together and ways to develop new leaders in the organization. To truly embrace innovation, the organization needs to be set up for it, and requires a long-term investment in creating, managing, and sustaining an innovation culture. Facilitating new ideas is just part of the plan; great leaders execute those ideas and make them practice realities. Six of the ten respondents suggested that in today's dynamic environment and working in contemplation of constant change, requires collective leadership; leadership that is shared and is distributed across the organization. Tom clearly stated, "shared leadership is essential." Similarly, Mary responded:

> "We are not nitpicky about who does what and who can talk to whom. I am not the sole gate keeper of essential knowledge."

Mary acknowledged that some of her colleagues in other units have expressed amazement of the frank conversations many of her staff have, especially between nurses and doctors. She felt the openness was a result of her "predecessor who involved the entire unit in striving for excellence" and mentored her in doing the same. Mary's experience refutes studies that suggests frontline managers experience challenges when they try to integrate different professions in order to establish new professional competence as part of leading collaborative teams (Folkman, Tveit, & Svedrup, 2019). Rather, it builds on studies suggesting practical strategies, such as developing

technology policies that take into account critical contextual factors and allow for local variation, are needed for mobilising knowledge and innovation in clinical practice (Holmes, Zahra, Hoskisson, DeGehetto, & Sutton, 2016).

Emma was even more emphatic about developing distributed governance when she stated, "I am not an island." She believed her goal was to develop leaders around her so that leadership was shared. She felt her aim as a leader is "to be able to leave and not be missed; knowing that the hospital is left in capable hands." However, she did not elaborate on the details of her succession plan or how she developed the competence level of leaders chosen to replace her.

Olivia perceived exemplary leaders "as those who realize they are part of a team." Donna echoed that "growing as a leader, like collaborative care, takes a team." William concurred, he stated "we have a large bureaucratic organization, there's no getting around that… you need teams for it to work."

Healthcare organizations are complex and implementing innovation creates change that has its own dynamic that requires the work and insights of many people to be successful. Collective leadership shifts emphasis from behaviours of individual leaders to group activity that works through and within relationships as a social process (Bolden, 2011). Thus, leadership practice is bound with the wider system in which it occurs (Uhl- Bien, 2006) and takes into consideration the situation to balance the most appropriate approach to leverage the capabilities of workers (Gronn, 2010). The findings support Hoch (2013) argument of shared and vertical leadership approaches are positive influences of innovation behaviour within an organization; and Holmes et al., (2016) who argue leaders must integrate actions that work with, rather than simply attempt to control the complex systems in which we work. Key to the success of working

with complexity in healthcare systems is enabling and developing leadership across an organization (Uhl-Bien, 2006).

Coaching and mentoring leadership development.

Collective leadership approaches focus on the social forces at play among actors (Lichtenstein et al., 2006). In the clinical setting, people are stressed, confused, and often disenfranchised by the constant state of change and may be ill - equipped to adopt innovation. Healthcare leaders are agents of change and must understand the importance of delivering a leadership style that is relational to ensure workers feel supported and empowered to adopt innovation (Senge et al., 2015). All respondents felt that coaching and mentoring others to become successful leaders were essential components of their role. To help change the conversation and the culture about innovation, organizations need to train its people. Teaching people about collective leadership is one aspect of setting the organization up for success with innovation implementation. Being a good leader requires creating safe opportunities and places for novice leaders to practice their leadership skills and develop their capacities, knowledge, and readiness to lead (McDonald, 2014). Olivia shared that:

> "It's an expectation that you will help bring new leaders to a level that they feel comfortable stepping into a leadership role."

Tom stated, "I've nurtured a pretty well-tuned engine – an expert team that works together seamlessly to provide excellent patient care." Emma agreed and also mentioned that leaders "should lead by example, care about those you serve, and be authentic." This concept was explicated by other leaders who shared their insights on being authentic. Mary revealed that "as a leader, I have learned the value of being fully present at the bedside." James, remarked:

> "…when I am doing my best work I am there, I am present. I am not on my phone or on my computer. I am looking at you; face to face. Second, I am really listening and not having a conversation in my own head."

This was further reflected in Emma's statement "it is imperative that leaders "listen, help make sense of things, advocate, and are transparent." Jennifer also stated, we "advocate for leaders who embrace change without losing essential qualities of holistic care." James shared that leaders who don't collaborate and are more used to [acting in a way of] *this is my position, I'm going to tell you what to do and direct you;* they don't survive in this environment because people will push back because they feel they are used to being involved and having a voice and being able to collaborate on things that impact their work or the patients that they're serving."

Collaborative leadership approaches facilitate the growth of leaders in practice environments. To assume leadership roles, individuals must master essential knowledge and skills of leadership (Grindel, 2016). These essential leadership capabilities are a combination of behaviours that align with the culture and promote structures, processes, and outcomes (Santana et al., 2017). The difficulty is many leaders unconsciously assume learners are more like himself or herself than they in reality are; seriously underestimating how important the differences in context are (Ailyyani, Wong & Cummings, 2018). This may have contributed to a sense in this study that leaders perceived they were effective in mentoring others and that their own style and approach of leadership was effective. MacDonald (2014) argues it is critical that current leader's check-in and evaluate the progression of new leaders as well as have their own performance evaluated.

Betty felt that:

> "A good leader has an understanding of who it is they are working with, a lot of

> understanding of the culture and how to motivate that space for their people. If they're lucky, they have the room to be able to do it. To know your people, to know what motivates them, to know what holds them back and then to have the ability to have some control and some responsiveness. Like in any large organization, that could be really difficult because there is not always space for everyone."

There was a general sense that leadership development was well structured within the organization. Olivia commented, "we have great support for senior management right down to frontline managers based on Kouzes and Posner's leadership model." Kouzes and Posner (2007) model of transformational leadership consist of five fundamental practices that enable leaders to accomplish goals. Leaders are encouraged to model leadership values that demonstrate mutual respect and motivate workers to share the same level of morality within the organization. These practices are: (a) model the way (b) inspire a shared vision (c) challenge the process (d) enable others to act, and (e) encourage the heart (Kouzes & Posner, 2007). Emma also commented, "there are a lot of leadership courses that the organization offers." However, Tom responded,

> "we are offered ten to twelve leadership certificate courses and many things of interest that build the opportunity for you to become a better manager but for me those courses don't come with availability of time to do them."

Donna thought checking in with people to see if they're getting better or worse in their role as leader was part of good leadership practice. She commented, "evidence supports the standardization of best practice." This too, she felt, aligned with leadership. She commented that, "we need to stop rewarding people for work arounds…rather we need to promote accountability and responsibility of actions through adherence and transparency of evaluation."

Olivia thought evaluation of leadership was often overlooked due to people being overloaded at work:

> "One of the learnings and the difficulties on an ongoing basis is that we don't have enough leadership or that leadership is overburdened with a myriad of things they have to do. So, every next thing becomes the tyranny of the urgent. You forget or you don't have time to do that check in or it falls off the side of your desk."

Development of leadership for innovation requires that people tasked with innovation implementation understand the behaviours needed, how they relate to their culture of person-centredness, and whether their behaviours and actions have enhanced innovation diffusion within the organization. The findings support leadership, culture, and education are perceived as essential elements of innovation diffusion in the organization (Glickman, Baggett, Krubert, Peterson & Schulman, 2007; Apekey et al., 2011). However, there was little evidence of explicit leadership skills required for innovation implementation and how these were evaluated. The findings reflected general expectations of leaders, such as setting a vision, developing goals, listening to others, and being authentic but did not yield any insight of the relationship between these expectations and necessary actions that leaders must take to facilitate innovation adoption.

Adaptability.

Olivia's comments above reflect the rapidly changing and unpredictability of the clinical environment, which has often been commonly referred to by many businesses as VUCA situations: volatile, uncertain, complex, and ambiguous (Bennett & Lemoine, 2014). Adaptability reflects the ability of the organization to respond to VUCA situations. Healthcare is a type of environment that presents complex challenges for leaders to determine the best ways to position

and enable their organization and people for adaptability and ultimately success. This too, reinforces leadership that promotes system thinkers, is relational, and dynamic in its adaptive responsiveness (Lichtensstein, Uhl-Bien, Marion, Seers, & Orton, 2006). While participants appreciated the value of removing barriers to facilitate innovation and adaptability, there was variance in approach. Donna promoted process standardization for many organizational processes, such as creating "checklists to reduce the burden on workers and to implement basic or incremental steps so you can get them to concentrate on the things you want them to concentrate on." Her focus was to influence and change mindsets using patient - safety as the driver. Similarly, Olivia commented that "quality control is embedded in strategic direction and each senior operations officer is responsible and accountable for quality improvement work." Alternatively, William thought the way we deliver healthcare was not sustainable and we are not going to solve problems if we don't completely change our thinking.

> "Maybe we need several solutions rather than a one size fits all approach. If we likened the current healthcare system to the auto industry- we would be producing just one type of car. Does this make sense or meet everyone's needs? Sometimes you have to be dramatic in your thinking to change things."

To be able to provide the required amount of support behind innovation to make it happen, leaders need to share the responsibility of leadership. The findings suggest the pace of change and the technological revolution caused by the Internet and access to information has had a dramatic impact on business models across organizations (Sahni, Huckman, Chigurupati & Cutler, 2017). For example, acceptance of digital devices in clinical practice has been a game changer in its use of accessing and communicating timely health information and impacting clinical decision-making processes (Daniel, 2015). As a result, many hospital pager systems have

been replaced with smartphones as this is the preferred mode of communication for most people today, including healthcare practitioners (Kuhlmann, Ahlers-Schmidt & Steinberger, 2014). Emma stated, "our business rhythms are not aligned with the new generation of employees' expectations." The increased access to information and global communication patterns of information sharing impacts organizational learning as the worldviews of individuals who work in today's organizations and of those who will be future employees have been affected by their connectivity to the Internet (Schwab, 2016). Most practitioners access multiple information sources and consult colleagues using digital workflows with increasing expectations for access and communication (Daniel, 2015). The findings confirm advances in technology are changing how health organizations do business, which are becoming less centralized as a result. All of the respondents perceived this was due in large part to the increased pace of information sharing and how people are used to interacting with it, which in turn demands more immediate responses from leadership. James stated,

> "There is so much coming at you all at once, it's critical to involve the right people, the right stakeholders at the right time, to understand where the change needs to be made."

James mentioned that stakeholder engagement, involved "whoever is going to be impacted by whatever changes and what that looks likes.' This may be an optimistic perspective as it seems unlikely that anyone and everyone involved or impacted by change would or even could be realistically consulted. Emma gave a more measured response, summing up key leadership strategies for information sharing based on who, what, and why. She felt leaders need to "know what it is, knowing why to engage in innovation, and then make sure you have the tools and resources, so it is easy for people to know what to do."

The acceptance of wide spread accountability for learning and the spread of innovation across the organization places more of an emphasis on collective leadership styles. Leaders and practitioners are seen to work together for quality improvement, which is part of clinical governance and practice standards (Canadian Health Information Management Association, 2017). The findings concur that knowledge management requires the release of power hierarchies so that leadership is not the monopoly or responsibility of just one person (Bolden, 2011; Cliff, 2012; Rycroft-Malone et al., 2016). The findings suggest collective leadership was seen to strengthen the organization's responsiveness to new ideas that improve operations and enhance quality of care. However, limitations of structures, time, resources, and training for leadership development were perceived as system constraints for innovation diffusion. To enhance responsiveness, respondents recognized that staff must build competence in new workflows and have opportunity for learning and continuous professional development.

Learning organization.

In the leadership field, the concepts of learning in organizations and leadership have been well researched (Senge, 1990; Grieves, 2008; Greenhalgh, Robert, MacFarlane, Bate, & Kyriakidou, 2004). The sub-theme learning organization reflects Senge's (1990) proposal that learning organizations are "organizations where people continually expand their capacity to create results, they truly desire" (p. 9). Studies suggest leadership and environmental factors support collective learning (Singer, Benzer, & Hamdan, 2015) and collective organizational learning capability is mediated by the relationship between leadership and innovation (Ratnapalan & Uleryk, 2014). James perceived "learning as leaders is using an egalitarian approach and encouraging shared leadership." Learning organizations help facilitate innovation adoption capacity and the opportunities for quality patient care (Hall, 2005). The findings

support studies that argue knowledge-based initiatives that focus on worker's use of innovation and its transfer from one context to another, will promote greater adoption and diffusion of innovation across the organization (Greenhalgh, et al. 2004; Crites et al., 2009). Critiques of organizational learning equates it with a particular type of organization or form of organization learning. Dunphey, Turner, and Crawford, (1997) argue the concept is an idealized vision of organizational learning and distributed leadership without practical evidence for support; and (Caldwell, 2012) argues, Senge's theory " is intrinsically a theory of leadership that narrows rather than expands the critical exploration of agency, learning, and change in organizations" (p.52). However, all respondents in this study, spoke of organizational learning in their interviews as a primary organization initiative to stimulate the translation of innovation for improved health care practice. Donna advocated for integrated collective approaches for learning. She stated,

> "The team comes to an understanding of the scope of the implementation and identifies site nuances and barriers, as a team, and a plan to mitigate them. We have found that it builds accountability and if we have point of care staff on the implementation team with management, there is inclusion and sustainability."

The findings from this study build on O'Connor and Kotze's (2008) argument that there is a "tangible dimension that relates to an organization's learning style and capability" (p.174). The authors further argue the assumption that organizations can only learn through individuals learning (O'Connor & Kotze, 2008). Peng, Dey and Lahiri's (2014) study synthesized evidence from social networks theories and from knowledge transfer theories and propose collective dissemination capacity of networks are important vehicles of knowledge dissemination for innovation diffusion. The authors recommend putting potential adopters of new technology in

networks with current adopters to explicitly model the flow of knowledge for quicker innovation adoption (Peng et al., 2014). However, Betty remarked there was often not enough time to spend learning from others due to the complexity and pace of change impacting clinical areas. She stated, “we end up spending a lot of our time being driven by all the fires that are going instead of trying to hide the matches.” She recognized there was organizational intent to promote learning in the organization, but people were constrained in their ability to access it or take advantage of learning strategies. She further stated, “I’m constantly concerned about the disconnect between the intent behind how we are going to provide evidence-based practice, best kind of care, and then our ability to resource that.”

Practitioners working to gain new knowledge and integrate innovation into practice require opportunities and access to tools, skills, and professional learning to support themselves in the effective interpretation of information and use of innovation (Government of Alberta, 2017). When practitioners are able to consider innovation and incorporate it to guide their clinical decisions, they become more effective in reviewing patient care, identifying gaps, and developing plans for improvement, which are prerequisites of a high performing health service (Sebastianski et al., 2015). Related to collaborative leadership is members working together, often as teams in collective learning practices, which brings together and integrates leadership approaches that deal with complex and relational processes (Gauthier, 2006). In clinical practice settings, practitioners typically work together to solve complicated patient issues by translating knowledge and applying it to the situation at hand. This requires evaluating and integrating best evidence, new information, and technology that promote quality patient care.

Evidence-based practice.

In the practice setting, clinical experience leads to clinical wisdom with the appropriate use of knowledge to manage and solve patient problems (Matney, Avant, & Staggers, 2015). Current practice standards support evidence informed decision-making. The concept of evidence-based practice (EBP) originated in clinical medicine in the 1980s and has gained wide recognition and influence (CNA, 2018). It is defined as "the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients" (Sackett et al., 1997, p. 3). EBP has become the benchmark for decision making and standards of health care for clinicians, managers, policy makers, and researchers throughout the world and is a driver for innovation implementation in healthcare (Guyatt, et al., 2004; Tonelli, 2006; Greenhalgh, Howick & Maskrey, 2014). The findings support that overall, leaders are aware there is a significant gap in translating new knowledge to what is being used in current practice. Betty told the story of staff applying old practices while caring for a patient. She perceived the reason was that "staff are trying to get through their workload. There's so much to do and so much to learn and things are constantly changing." Donna stated,

> "the premise for innovation and change is we need to teach all disciplines effective team function and communication, with psychological safety and understanding system thinking driven with evidence-based patient-centred care."

The clinical environment is complicated, occupied by patients with multifaceted problems, which often leads to treatment uncertainty. Traditionally, EBP privileges empirical research. However, in clinical practice, different forms and sources of evidence are needed to answer different types and levels of complexity of various clinical questions. Betty perceived there was importance of collegial communication in knowledge mobilisation. She stated, "I was

talking with one of the doctors and one of our ER nurses…I learned more in five minutes from them than I probably did at school." The findings align with Graybeal (2014) in his analysis of the realities and complexity inherent in practice, which make the process of connecting sources of evidence a negotiation of ideas and insights, in an attempt to find the best fit for the unique problem or circumstance at hand. The findings emphasized patient-centered care approaches are crucial components of clinical wisdom and adopting innovation, as they facilitate practitioner ability to make explicit coordinated interprofessional competencies and apply those fundamentals to personalized care that leads to greater patient well-being (McCormack & McCance, 2010).

Technology and innovation.

Respondents put a high priority on using technology in clinical practice and recognized its ubiquity in peoples' lives. James remarked "with the technology piece, even the older workers know how to do it… plus there's a whole generation of people who have never done cursive writing, or very little" because of advances in technology. William commented "the adoption of technology and innovation is critical and not even debatable for organizational performance." He mentioned that as we spoke, he was on his iPhone and looking at the Internet, reading his emails. Like most of us, interfacing with technology is part of William's daily life at work. In healthcare, Canadians are increasingly knowledgeable as they research options, treatments, and possible solutions to health care problems and present them to care providers for discussion and possible trial (Canada Health Infoway, 2019). New technologies also require rethinking on the part of health care providers. For example, Norman (2012) suggests the power of social media and its communication channels are innovative ways for health organizations and practitioners to

connect and share information in ways that fit learning preferences and to create networks of influence and practice using mobile phones as tools that often reside in our pockets.

However, William cautioned while technology,

> "leads to huge opportunities by using it and has a role to play but it's not the only thing, it's part of the system and has to be used appropriately and managed well; there are lots of organizations out there with ultra-technology but they're crummy companies because it hasn't been adopted well."

He thought innovation needs to serve a purpose. He told the story of a hospital which brought in a spine machine for its breast reconstruction unit, as an example of successful use and adoption of technology. He thought it was so exciting because "what used to be a big problem for patients and practitioners was completely gone." The technology and worker adoption of it had solved the patient problem and that, for him, was the definition of successful uptake of innovation.

Respondents acknowledged innovation builds a culture of excellence. Olivia stated, "lots of our innovation projects line up with our strategic direction and our goals centred around quality." The focus on providing excellent patient care drives most practitioners to frame innovation positively and perceive it as an essential component of best practice. Findings concur with the effective use of information and technology for better patient outcomes as a driver for innovation (Kitson et al., 2012; Helfrich et al., 2007; Sebastianski et al., 2015). Although practitioners embrace the idea of providing evidence informed care, the findings suggest the realities are that due to time constraints and the volume of new information and technologies available, individuals have a difficult time keeping up, let alone deciphering it for practice integration.

Continuous professional development.

Continuous learning and professional development are essential in healthcare. Health practitioners are motivated to engage in continuous professional learning as it is an expectation of most professional associations and a requirement for upgrading skills and increasing knowledge to demonstrate competency in the workplace (May, Mair., Dowrick, & Finch, 2007). Building knowledge and learning about new technologies, through working with others, is common in clinical practice. It was noted when professional benefits (compliance with best practice and demonstration of evidence for certification) and personal advantages (recognition, visibility, promotion) were anticipated, some people were more likely to embrace a practice innovation. David shared:

> "People realize the benefit of sharing knowledge gained through the process of an innovation when they're looking for evidence to demonstrate the currency of their practice when they're looking for things for CARNA with registration, then they're motivated."

Although, collaboration and working in teams is being redefined in some of the leadership literature to account for growing tensions and dissonance in complex environments (Uhl-Bien & Arena, 2018), the findings reflect a general agreement of a supportive organizational system, which encourages cooperation amongst workers. Tom stated, he buddies new nurses with many mentors, "to see that there are different ways to do things…I think showing them different styles can be important for their learning." Four of the respondents perceived removing barriers to "reduce the burden on workers", as Donna stated, was key for successful change. However, none of the respondents spoke specifically of barriers related to team work. James stated, "I think the number one role as a leader is to remove barriers and Olivia thought "as a leader, you are

there to serve the people doing the work and I need to ask - what is preventing you from doing your job?"

However, Betty stated, "I can't tell you the last time I went to a seminar." She felt she did not have enough time in her day to take any time off for learning. She shared, "some days, I'm almost scared to look at my emails." The findings reflect a gap between leader's intent to make learning opportunities available to workers with the realities of the clinical setting, which is plagued with staffing issues and limited resources. As discussed previously, the respondents' narratives ignored issues of power and conflict in the workplace, which are common elements of working in groups and networks, interprofessional teams, and changing mixes of people interacting for care provision (MacNaughton, Chreim, & Bourgeault, 2013). Betty's comments reveal hierarchal structures within the organization exert control and power, which are not recognized. This supports Caldwell's (2012) argument that systems leadership theories tend to normalize power (the power to act) by treating agency as unproblematic and that can be distributed without acknowledging the organizing practices of power, domination, and compliance. Betty, positioned within middle management structures of the organization, was compliant in her inability to act as a norm of her role and responsibilities and she held the view of a leader as someone who needs to do what is necessary to get the work done. This was a dominating influence to her narrative. Alternatively, leaders may be naive in their assessment of worker care capital, placing unwarranted emphasis on the advantages of individuals' caring attributes facilitating group dynamics and capabilities for innovation uptake. Jensen, Flachs, Skakon, Rod, & Bonde's (2019) study demonstrated employees typically had lower social capital, which negatively impacted the organization following organizational change and also a

higher risk for lower social capital in work units exposed to change. A parallel argument may be similar for care capital of workers exposed to organizational changes.

While continual growth and development were considered to be important, and interviewees felt strongly about innovation making sense for the organization as a means to enhance patient care; it had to be practical. Initiatives that build capacity and promote knowledge mobilisation were seen to be more effective when using a multilevel approach and involving both individuals and teams (Klein & Knight, 2005). David stated,

> "Health innovation must be seen as an enabler, not an endpoint, and certainly not as a deterrent to quality care. If it is not good, if it does not fully integrate with the workflow of clinicians to help them work more efficiently and improve quality of care - why have it?"

Emma stressed the importance of continuous learning and developing appropriate skills and knowledge of workers, so they are able to integrate innovation into practice and leverage new knowledge, which enables the organization to be adaptable and competitive. The findings support the widely-held belief that the transfer of tacit knowledge and learning leads to improved performance (Lave & Wenger, 1991). However, Emma thought the introduction and use of innovation can lead to loss of connections with patients through its misuse, if people are not properly trained. Emma perceived this "as the flip side of having too much technology at the bedside" and not training people with a tool that helps them with their work. She shared her experience of watching "people using devices and not interacting with the patient." She explained that management is "getting a lot of complaints from patients that staff are on the computer all night and didn't come talk with the person." She thought "this does not provide a better patient experience to the people we are serving."

The findings reflect the perception that people do not spontaneously tend to turn new knowledge to work as they put health innovations to the test. They need to try out the new practice and mobilize the lessons learned, which may promote the adoption of new roles and new relationships between people, which may make it easier for them to adapt and embrace change (Bruce et al., 2012; Ulh-Bien & Arena, 2018). Donna reported:

> "Some of the best lessons I have ever learned as a nurse have been from experienced nurses who told me a story about what happened to them, while working, and I never really forget those lessons. You learn a lot through storytelling."

Scholars of patient safety have argued the quality and safety of patients' care is affected by the care providers' knowledge and of their knowledge of the patient's health status (Rourke, Amin, Boyington, Ao & Frolova, 2016). Emma stated that there are formalized corporate strategies to manage learning and assist in filtering information about innovation through the organization and "are mostly the responsibility of Professional Practice and Learning Development." These findings concur with the literature that aligns professional learning with development of workforce capacitiy building (Somerville et al., 2015).

Although there were some corporate strategies to implement innovation that centred on professional development and workplace learning, the findings reflected a shared belief for systematic methods of teaching innovation was needed. Emma stated, "we need to provide ongoing support when deploying an initiative."

Workplaces and clinical settings are contexts for situated learning. Learning in practice is recognized as a function of learning organizations, where co-workers enact evidence-based learning experiences to enhance their capabilities and adapt to challenges (Senge,1990; Uhl-Bien

& Arena, 2018). The findings affirm workplace learning experiences involve the influences of the setting and the nature of the relationship between individuals and the workplace (Billet, 2006; Lave & Wenger, 1991). However, findings suggest that leaders do not attend to workplace stressors, such as workload, time constraints, and limited resources, that are affecting worker's ability and capacity to absorb and act on new knowledge (Greenhalgh et al., 2004). The findings also reveal conflict and power relations are largely overlooked by leaders, which may be a result of a misplaced reliance on workers' caring attributes that leaders believe enhances worker ability to absorb changes. Similar to Dewey's (1966) seminal work that laid the foundation for contextualizing workplace learning, the findings reflect that an appropriate environment is needed to stimulate and direct workers' learning. William echoed this in his response, "the same situation does not exist in labour and delivery which is full of delivering moms as the emergency department on a Friday night"; meaning teaching and training opportunities need to adapt to worker needs and the contexts in which they work.

Communities of practice (CoPs) and champions.

Many healthcare agencies have embraced CoPs as a means to translate knowledge within and across organizations. In this study, the findings confirm usage of CoPs as part of innovation implementation initiatives and strategies. Betty perceived building CoPs as a "strategy being used more often now to transfer knowledge within the organization." This supports the influence of interpersonal and interorganizational networks to create shared meanings of innovation (Greenhalgh et al., 2004: Lave & Wenger, 1991). Donna perceived CoPs

> "as effective clinical teams that opens up dialogue, and is a safe place…capability includes competence, but also much more. The goal of developing capabilities is to raise your level of care beyond the minimum."

Olivia perceived "CoPs as part of the collaborative team building tools to enhance how we care for a population." She felt CoPs "can be used to cross pollinate in the organization… to build redundancies where appropriate." This she felt enabled people to come together with a common goal and "be on the same page when caring for the patient." In healthcare, collaborative learning practices are commonly used for acquisition of clinical skills and knowledge, which builds competence. Working in groups is often seen as more effective and efficient for mastery of psychomotor, behavioral, diagnostic and communication skills needed by practitioners for application in a variety of clinical situations (Tolsgaard, Kulasegaram, & Ringsted, 2016).

Health practitioners are constantly engaging in learning activities to maintain and demonstrate currency of competencies across the organization and thus teaching and learning in the practice setting are ubiquitous. Teamwork is generally viewed as part of helping others and where the potential for greater learning and exchange of tactic knowledge takes place (Kislov et al., 2014). The findings support the notion that teams harness action and translate knowledge to practice by making it easier to formalize lessons learned and to share and disseminate those results (Schenkel & Teigland, 2008). Alongside teams were the use of champions to nurture integration of knowledge in practice and to build individual capabilities. Donna stated,

> "Peer to peer education is recommended but we also bring together a group of champions that become a community of practice as we lead through super user training and site implementation. They will increase knowledge and skills as a team."

Donna thought using a group of champions as a community of practice helps build effective clinical teams. She gave the example of a roll out plan for Basal Bolus Insulin Therapy (BBIT) and how it "facilitated effective team function and communication, with psychological safety

and understanding system thinking, driven with evidence-based patient care." She thought it worked well because the team came together understanding the scope of the implementation, identified site nuances, and planned how to mitigate them by working collaboratively together.

However, Tom felt "champions are overused in our culture." He recognized leaders must attend to the multiple ways' workers co-construct and scaffold knowledge to foster learning opportunities that build capacity within the organization. Champions may be seen as informal transformational leaders who inspire others to adopt innovation (Howell & Boies, 2004). They also may become their own CoP, seen as a sustainable organizational support for innovation. Conversely, the findings also suggest that the suitability of champions in all aspects of implementation is not the same and they may lose their appeal or ability to facilitate sensemaking of innovation if overused or perceived to be too closely linked to unpopular leaders or organizational messages (Hendy & Barlow; 2012). Thus, the ability of champions to promote innovations and enhance group performance relies on champion effectiveness (Howell & Shea, 2006). The various perceptions of the role champions and teams play in the organization, suggest there is a blend of functions existing within leadership: coach, facilitator, and teacher and their applicability is situational (Godfrey, Andersson-Gare, Nelson, Nilsson, & Ahlstrom, 2014).

Betty felt CoPs have had push back as yet another make-work strategy and stated; "I'm not so thrilled about CoPs." Others saw CoPs as hard for frontline staff. Jennifer shared the sentiment that

> "no one wants to correct their colleague, it's uncomfortable. I rely on a strong educator to be present and build ways to translate clinical knowledge."

David perceived "people are feeling overwhelmed with the constant change, turnover of staff and need for updating around best practices as a constant struggle." The result of these pressures

reported a more negative influence on working together and facilitating learning. Tom shared the story:

> "I was talking the other day during orientation, and I said you know sometimes I find nurses to be quite judgemental people. And I don't think they came into it being judgemental people. I think the pressures of the situation do that. Because I often hear nurses say – *well that person has only been here for six months, so I wouldn't expect them to know that*. What I usually hear is - they've *been here for six months, they should know that!"* We've sort of flipped it and I think some of that lack of gentleness, empathy and ability to support is missing. I don't think it's that people don't want to support or learn or do these things. I genuinely think they're just really stressed."

The findings corroborate that working in groups or teams is not the remedy for all learning in clinical practice and its effectiveness may depend on the type of learners, power relations, task, learner interactions, communication patterns, and situation (Patton et al., 2013; Kislov, Harvey, & Walsh, 2011). The findings may also provide support for healthcare organizations that rely on online learning modules as the main strategy for continuous professional development of their workforce. CLic is the online educational system used by the organization to share information across units, and as Olivia thought, a good method for the organization to "manage mandatory competency demonstration by employees" as employees are responsible for inputting their annual mandatory learning modules and following-up with their educators for feedback.

However, insufficient integration of new knowledge and communication between practitioners leads to practitioner anxiety over new ways of doing and can affect patient care by creating opportunity for near misses and adverse events (Rourke et al, 2016). James felt "we

have a high degree of continual training and in-service due to the nature of the industry but it's one thing to provide information and another to use it and have support in using and doing." Tom responded that

> "there is a communication error in every single sentinel event. We have to be able to explain how deadly bad communication is. Bad communication prevents translation of knowledge and changes in behaviour."

The findings suggest the ability to have dedicated time and space to dialogue and share experiences for knowledge mobilization with colleagues was an important aspect of learning (Mitchell, Gagne, Beaudry & Dyer, 2012; Boies, Fiset & Gill 2015). However, Mary acknowledged that the pressures of constant learning were evident and present a barrier to workplace learning:

> "There's so much to do and so much to learn and things are constantly changing. When there's no time that's deliberative, that's set aside, if there's no actual academic or intellectual kind of space to have real discussion, that's a problem because that's when I think people really learn."

Although, many healthcare organizations have moved mandatory learning to online modules, there was a sense that relying too heavily on online learning modules for communication and education was potentially problematic, especially when dedicated time was not provided for learning. Tom perceived teaching new ways of doing in healthcare had more of an impact in person.

> "I can guarantee you if a nurse who is working a night shift, sits down to do essential education and a bell goes off and they're being interrupted every five minutes to answer the bell, while their trying to do their learning, - that's not

> effective learning. All you're doing is checking a box, it's not actually moving you forward."

There was also recognition of differences between rural and urban sites, in regard to access of resources. Betty stated:

> "Some rural sites have limited educator time. They often are only able to keep their hands around the emerging trends, or what they see as going on. While more experienced educators can do that and have a system of keeping track of what has changed and are able to check in."

Experience both as a practitioner and as a member of a teaching teams was identified as a positive factor in facilitating others in their learning. This was relevant to working with others and in teams across practice settings.

Teamwork.

Betty and Oliva commented on care huddles as a team approach used for learning in clinical practice. Care huddles are scheduled regular meetings and discussions of members of the team of health practitioners, working collaboratively towards patient goals, often focused on operational issues of care provision. They are commonly used in provincial practice settings for collaborative practice of interprofessional teams based on the integration of six core competencies (role clarification, team functioning, patient-centred care, collaborative leadership, interprofessional communication, and interprofessional conflict resolution) described by the Canadian Interprofessional Health Collaborative (CIHC) Model. This model is nationally recognized and describes the attitudes, behaviours, values, and judgement's necessary for collaborative practice standards in Canada (CIHC, 2010). By its use as a framework for collaborative patient care, these concepts and practitioner competencies underpin clinical

learning of teams within the organization and helps inform leadership commitment to continuous learning. Basic underpinnings of the CIHC model are competency demonstrates practitioner knowledge, skills, attitudes, and values with the assumptions that collaborative practice is a developmental process. Thus, interprofessional learning reflects a cumulative continuum of learning over one's professional practice (CIHC, 2010).

Olivia perceived huddles as a means to promote learning by demonstrating patient-centred care practices. She stated,

> "we have quality huddles. So, there's' lots of different things that we have that show and demonstrate to any new staff that patients and collaborative practice and learning are our focus and that's what's important to us."

However, Betty responded a huddle doesn't necessarily mean it's an effective team or a CoP; nor does it necessarily mean that knowledge sharing occurs. She stated,

> "I've watched the nurses and I've talked to them afterwards. And they've done the… ok, it was great talking about that, but I was thinking about my patient and all that I need to do. So, they're not engaged [in the huddle] for learning to happen."

There is a body of literature that explores the changing meaning of teams in healthcare (Rosen et al., 2018; Reeves, Lewin, Espin, & Zwarenstein, 2010; Iedema & Scheeres, 2003). The findings build on Bleakey's (2013) proposition that the concept of working in teams, although a key mantra of contemporary healthcare, is based on an assumption that they are a good thing; but the realty may be quite different. He suggests the current state of continuous change necessitate that practitioners be more fluid. Conventional thinking of teams has been refined to reflect the complexity, unstable networks, and contradictory processes present in clinical practice. The current complexity inherent in the healthcare system promotes adaptive systems to respond to

emergent issues, requiring continuous negotiation among individuals and their dynamics (Greenhalgh et al., 2004). Work organization is thus being constantly re-configured to meet the new realities, with more attention placed on adaptive mechanisms rather than stable team forming mechanisms (Bleakley, 2013). This supports the notion that leaders need to be thoughtful and purposeful in their actions as they mediate continuous change in an environment where workers are acquiring new information that alters their current understanding (Holt et al., 2007).

Deliberate action.

There was agreement among respondents that adoption of technology and innovation is critical for quality healthcare. The sub-theme of deliberate action reflects the perception that leaders need to act purposefully. In virtually all interviews, there was a perception that maintaining the status quo was equivalent to stagnating. Innovation was seen as a means to stay relevant. Health organizations need to adapt and evolve to meet the ever-changing needs of their constituents. Leaders have a role in creating a culture and climate for innovation in the organization. The findings build on Klein and Sorra's (1996) implementation theory. Strong implementation climates encourage the use of innovation by workers and build capabilities (May et al., 2007). David stated the minute that you're not continuously moving forward, you're stagnating and then you have to ask yourself, are you really doing the best that you can?" Many participants appreciated that successful innovation implementation required preparation and planning. There is importance in being deliberate to capture new knowledge being acquired through innovation to provide time and space for it to be open for interpretation, accessible for fine tuning or adjustment, and then grounded in practice as the innovation rolls out (Greenhalgh et al., 2004; Mitchell et al., 2012)

Donna stated,

> "In health system transformation, if we are going to shake up the system, we must make sure that it is set to succeed."

What emerged from the interviews was that the more clearly defined the strategic intention is at the outset, and the more efforts are made to communicate its purpose throughout the organization, at all levels, the more it will resonate throughout the implementation process, and the better chances the innovation will have of being fully carried out (Zadvinskis et al., 2014).

An emphasis on conscious action with innovation implementation was reflected in comments made by Tom to "be deliberate and consistent with language" and "promote responsibility and accountability of actions." This messaging was important in conveying the organization's vision regarding the importance of the innovation, and the extent of commitment to achieve it, thereby legitimatizing it. The findings build on the study by Bois et al., (2015) that identified communication as a central mechanism for team functioning. Leaders who develop trust in the purpose of the innovation, with their constituents, create teams that are more likely to perform with innovation. Some leaders thought take-aways about messaging could be gleaned from other industries such as auto and aviation that have used deliberate action to strive for high reliability within their organizations. Donna remarked:

> "In the airline industry, they do not allow any deviation on checklists because of safety. We are production pressured. So, people step into unsafe zones on a regular basis to shortcut and save time... so they don't bother with any safety checks – would you be okay if the pilot didn't?"

William suggested that deliberate attention to customer elevates the level and quality of service in the auto industry, which is an applicable analogy to health services. He remarked on a recent

report by Alberta's auditor general, *Better Healthcare for Albertans,* released in May 2017, that criticized Alberta's integrated healthcare system as not meeting the coordinated care needs of patients and their families, and is too fragmented. He stated:

> "When you take your car into Acura, they fix it; they don't ask you to go elsewhere to fix the wheels, transmission, or whatever it is- they look after it all and if they don't, they arrange for it to be done. The number of people who are trying to get health services independently, whether it be restorative care, mental health care, or whatever- and there's nobody helping them, they have to figure it out on their own. So, what is an expected practice for your car is not an expected practice in healthcare – we need to change that system."

However, simply having the information or access to an innovation offers little insight into its value. The value comes from having a systematic system of locating data, synthesizing its value, and analyzing its applicability for practice (Klein & Sorra, 1996). The findings suggest organizational processes need to be more effective in making explicit the management and governance systems of innovation implementation. Emma perceived "we don't have a process that is standard when we are talking about innovation adoption. It's kind of piece meal and it happens through many different channels." Standardization of organizational systems facilitates the transformation of information to knowledge in practice by clear and formalized identification of relationships so that meaning is evident (Rogers, 2003).

Explicit, strategic determination conveyed by the organization's leadership and governance structures creates conditions that are conducive to the diffusion of innovations across the organization. The findings reflected other significant factors were clear communication, consistent resources, and policies and procedures that actively support, guide, and sustain

capacity for innovation by workers. Offering opportunity to generate novel and useful ideas, refine them, experiment on them, assess, and then finally apply them across the organization for scale was perceived to be valuable. The findings build on studies that demonstrate formalized organizational resources committed to innovation are positively associated with innovation adoption (Damanpour & Schneider, 2009; Aarons et al., 2011; and Greenhalgh et al, 2004). There was a difference of opinion regarding how this was determined and accomplished in the organization. Some thought there were several incongruencies across the organization, starting with prioritization of initiatives. Tom stated:

> "I don't think that our real priorities always match with what our stated priorities are…I think we need to be really clear about our priorities and we need to limit how many rollouts we actually do?"

Olivia thought that setting priorities and working through innovation implementation was inconsistent.

> "We don't have a process that is standard when we are talking about innovation adoption… we have pockets, areas, or sites that may be really good about innovative practices but because we don't really have a consistent process or workflow to do these kinds of things as an organization or organization wide, they are all over the place?"

There was recognition of the importance of promoting creativity and new ideas as part of an innovative culture, however, effective leadership needed to prioritize initiatives and at times reign them in. There were concerns about how initiatives are chosen and their applicability for scale across the organization.

Betty stated,

> "There's no gatekeeper- someone in Edmonton who comes up with something and wants it rolled out everywhere, but it doesn't fit everywhere and it's not actually what everywhere needs."

James stated:

> "Leadership needs to be careful of how much change is going on. Leadership needs to hold that and make tough decisions about priorities. Recognize great ideas but timing may not be right at the moment."

Finally, there was an impression that transparency was not fully practiced across the organization and this impeded innovation adoption. Although leaders promoted cultural values and respect of persons, they recognized there were gaps in leadership transparency. These gaps or variances of transparency that exist within the organization erodes the trust, confidence and security of workers. In the report *Pathways to Innovation and Change*, by HealthCare*CAN*, a national voice of hospitals and regional health authorities across Canada, it was argued health practitioners are men and women of applied science who are used to working with transparent data and are more willing to support and advance change when transparency is evident (HealthCare*CAN*, 2016). Jennifer responded that leadership needed to be clear in its plan of action and the rationale to support it. She stated:

> "Honestly, I think there is more that we can do but it's in how you ask the question. We don't have a magic wand, so don't go there…ask them what they want with what we have…you have to stop selling a used car while pretending it's a Lexus. You have to be realistic."

Summary of Leading Change Theme

Innovation implementation is a complex multi-faceted process which involves several decisions to be made both by leaders and practitioners. Influencing these decisions are socio-cultural, political, fiscal, and historical factors that impact workplace learning and leaders' need to be mindful of these as they construct their vision of a learning organization that promotes knowledge mobilization for innovation diffusion (Wisdom et al., 2013; Williams & Dickinson, 2010). Understanding these influences may provide leaders with better insights for the development of strategies to facilitate the effective uptake of innovation. The findings suggest leaders acknowledge the importance of *patient* centredness as a key element involved in decision making about innovation in healthcare. However, the findings suggest there is a disconnect in appreciating workers in this same context. Acknowledging *person* centredness means understanding and acknowledging the roles, perspectives, and contributions of workers in the workplace. The absence of dialogue about power and conflict in the workplace, as a result of innovation and change, is a telling sign of the importance of a perspective change from *patient* to *person* centredness.

Conflict in the workplace has become a fact of life for most hospitals as a result of work behaviours and organization (Hamblin et al., 2015). Ignoring conflict or ineffective management of it leads to negative leader-employee relations, erosion of trust, decreased motivation, increased stress, lowered morale, and absenteeism, which all contribute to fostering a hostile workplace environment (Arnetz et al.,2015). These signs were consistently displayed in the findings and are indicative of a health professional experience of value conflict with the larger social organizational system and leadership practices (Gable, 2013). Healthcare practices and knowledge mobilization strategies are largely built on the assumption that people need to work

together to provide patient care. However, the realities of clinical settings and the relations between workers often pose challenges for effective team function. Changes in service approaches, difficulties in interprofessional networks, and budget cuts place enormous pressures on providers and administrators, creating ethical and moral tensions in the workplace. This study extends the literature on collective leadership, showing shared leadership was associated with innovative behaviour as a team outcome (Hoch, 2013). Leaders and practitioners need to work together to share the responsibility of empowering individual and team integrity while confronting the priorities and agendas of the organization. There was a focus on value centred care with recognition and expression (by measurable actions) of workers' personal and professional values prioritizes workers and the relational integration of providers in care processes, including innovation implementation. Relational integration signifies the need to understand personal and professional values and the ways they are understood as people implement innovation. Furthermore, this research builds on arguments by Cardiff et al., (2018) stating that person-centred leadership has an impact on leaders, workers, and context in healthcare organizations.

Leadership is seen as pivotal in relationship management, engendering mutual respect and teamwork in the workplace, which forms a basis for collaboration (Hoch, 2013). Leadership shapes how workers embrace sharing knowledge across the organization through developing effective organizational structures and processes. Applying the PARIHS framework to view the contextual factors at the micro (individual), meso (teams in knowledge mobilisation), and macro (hospital) levels, one must take into consideration the sub-elements of: (a) an understanding of the organization's person-centred culture, (b) leadership styles and approaches, and (c) fit of the innovation with the organization's structures and functions (Kitson et al., 2008). The findings

reflect leadership had varied practices, operated within a community of leaders who advocated for continuous learning in the workplace, and sought to be collective and collaborative. Respondents perceived successfully incorporating innovations and evidence to inform practice decisions as a hallmark of learning organizations, which was a valued organizational concept. However, the realities of how teams' function and the inter-relational management of worker's needs seemed to be one of emerging resonance for leaders.

Best in class learning organizations, are characterized as having an appreciation of the power and the complexity of the challenges of managing innovation. The ability to adapt and respond to VUCA challenges was seen as a way to determine how effectively the organization learns and applies innovation (Wellman, 2009). As a group, discrepancies existed on how best to manage opportunities for learning, structure processes and procedures so that innovation is more likely to be adopted, monitor the associated learning activities to capitalize on new knowledge, and support adaption or changing care workflows.

There was agreement that managing a learning climate is a deliberate, active, participatory, and social process of developing and sharing explicit and tacit knowledge about innovation within the organization (Ratnapalan & Uleryk, 2014). As such, learning becomes a shared responsibility of all members. The creation of collaborative learning environments provides workers opportunities to share knowledge and build practice competencies of innovation adoption. The findings build on Fleig-Palmer and Rathert's (2015) study in which interpersonal relations, including mentoring and support play important roles in knowledge transfer and the retention of valued practitioners through its influence on affective commitment. Evolving practice dynamics may require a shift in in how leaders and workers frame teamwork, knowledge transfer to promote improved patient outcomes, and strategies that assist in

continuous professional development. Deliberate actions by leaders that demonstrated consistent and persistent corporate strategies, included appropriate resource allocation and ongoing evaluation. These were seen to be key to successfully facilitating both organizational learning and the spread of innovation. The findings propose leaders who link quality of care and patient safety with learning and make explicit the responsibility rests with all providers of care, will help position innovation as essential, requiring supervision and oversight at all layers of the organization. Similarly, the findings suggest senior management and informal unit leaders need to work together, mindful of strategies that promote space and time for learning, as part of the organization's basic responsibilities, so that workers have sufficient access and instances to develop their skills in using innovation. The findings suggest developing leadership narratives for greater relationship and value orientated leadership practices aligns with workplace evolution of patient-centred cultures (Cardiff et al., 2018).

Chapter Six – Findings and Discussion: Health Leaders' Understandings of the Benefits of Innovation.

Innovation in healthcare is generally seen as positive as a means to provide a better standard and quality of patient care. However, there is recognized difficulty in sustaining the spread of an innovation across an organization (Dennehy et al., 2011; Gordon & Oliva, 2018). The role of innovation is complicated, initiatives are complex, and the efficacy of their impact are often not evaluated or well aligned with the context in which they are implemented (Parry et al., 2013). Evidence from research suggests the introduction and implementation of new technologies and health innovations impacts the working environment and alters the ways in which care services are provided (Berwick, 2013). To truly reform the health system, it is important to evaluate the expected value of an initiative's impact, exploring the full path and activities used to change clinical processes, workflows, and patient outcomes. Unfortunately, the literature suggests innovation implementation in healthcare organizations often fails for a variety of reasons (Apekey et al., 2011; Brennan et al., 2012; Denis et al., 2002). For example, Greenhalgh et al., (2004) argue leadership influence, organizational readiness, and culture for innovation are key elements that impact innovation success. This study's findings offer insights into what health leaders understand are important dimensions of their work with innovation and the benefits or shortcomings of implementing innovation from their own experience.

The theme *collaboration* reflects the benefits from focusing on system wide effects of implementing innovation. It related to the variety of contextual factors and interactions with multiple partners, organizational groups, and exploring boundaries within and outside the healthcare agency as part of the transition of innovation implementation and practice change. This theme was influenced by the sub-themes creating linkages and evidence of practice

efficacy. The sub-theme *creating linkages* reflected the networks created to provide meaning for adopting innovation in practice. The sub-theme *evidence of efficacy* considered the sense making of the perceived benefits and improvements for an innovation. Respondents were aware that an active coordinated approach to innovation implementation was needed, however, variance in perceptions about the best methods to achieve successful innovation diffusion existed.

Collaboration Theme

Improving the quality of health services for improved patient outcomes involves the work of multiple actors. Within the organization, all respondents felt the ability to create interest for innovation and mobilize strategies that were effective was the responsibility of leadership. Emma thought a starting point for successful innovation implementation was consensus on what innovation means to the organization and to have a clear thought out plan about goals and who will be impacted by change. She stated, "innovation means many different things and can take you down very different paths depending on how you define it." The findings build on research that suggests healthcare leaders must sharpen their focus on innovation to be deliberate in actions that define it, adopt it, and embed it in the organization's culture; ultimately creating an entity within the institution with the sole purpose to catalyze innovation in the organization (Samet & Smith, 2016). This creates unified meaning of innovation for members and helps define its value and structure a framework for developing how value is measured to create evidence that supports behaviour change and resource allocation (Jena et al., 2018). At the time of our interview, Emma indicated that senior leadership was in the midst of creating an innovation strategy for the organization. She stated,

> "we are trying to figure out what we are going to do. We don't really have a system or a strategy when it comes to innovation."

David thought “you need to be crystal clear on what you are currently doing and then you need to look at where you want to go.” While Tom stated that leaders need to “take time for reflection on information, people, and events to attain clarity and then commit to action.”

These comments suggest a starting point for contemplating change begins with an understanding of the current state of a situation to determine if a problem exists and then to think about plans on how to fix it. Once a problem has been identified, a defined meaning of innovation sets the plan for action. However, Betty thought prioritizing problems first was important so that careful consideration supported deliberate action rather than engaging in too many unstainable initiatives. She stated, “I think we have to be very deliberate about where our boundaries are… I think there are too many people who have the ability to just initiate stuff.”

Implementation methodologies promote the translation of evidence into practice. They can increase the likelihood of sustained individual and organizational behaviour change strategies (Grol et al., 2013); improve efficacy of procedures and treatment (Collier et al., 2015); reduce resources (Pinkhasov, Singh, Chavali, Legrand, & Calixte, 2019); promote overlap with program evaluation and quality improvement (Gordon & Oliva, 2018); and foster explicit interventions and strategies that lead to generalizable knowledge for capacity building across the organization (Skolarus & Sales, 2016). However, there was variance in how ideas or innovation flowed through the organization. Half of the respondents thought like Tom who stated “all things flow south” meaning innovation was a top down approach; initiated by senior leadership and directed by policy and best practice. While others in the group, including Olivia, Mary, and Emma perceived a grass roots movement or a combination of both, directed innovation. For example, Emma thought,

> "professional practice groups and SCNs [Strategic Clinical Networks] bring best practices to life. The approaches are both up and down right now, we just don't have a standardized process to manage all the ideas or even identify them, such as having a centralized *hopper* where opportunities for improvement can go."

Healthcare organizations are often constrained by regulatory, licensing, and accrediting bodies that influence policy or top-down approaches of innovation diffusion. The aim of these bodies is to provide oversight and accountability for public safety and quality patient care. Their efforts focus on setting standards for agencies, typically related to the structure and processes of service, and monitoring adherence to those standards (Health Quality Council of Alberta, 2019). The quality report cards for improving health system quality and patient safety are often the impetus for innovation prioritization and investment. Olivia commented on the importance of the corporate quality office of the organization that provides oversight for strategic direction. The adherence to best practice mandates is influenced and informed from partnerships with Alberta's integrated health system, internal and external stakeholders, provincial bodies, and associations, such as professional colleges. She noted,

> "we attend to the work of quality, which is reducing harm to the people we serve and improving their experience. The work we do in quality requires the alignment and co-leadership with professional practice and operations."

Although, respondents spoke of regulatory and accreditation standards that govern strategic action for innovation and improvement initiates, there was limited mention of internal organizational policies that improve practice using health innovation technologies. Only one respondent explicitly linked policy and improvement initiatives together. Olivia stated, "learning that comes out from quality committees are shared broadly through the organization." Effective

information exchange between actors within a health system is fundamental to quality patient care (Blumenthal & Tavenner, 2010). Furthermore, effective governing includes having the capabilities to influence and regulate actors and interactions within the organization's implementation processes (Lang, 2019). Typically, compliance mechanisms such as policy tools and the harmonious confluence of leadership across an array of actors collectively demonstrates effective governance that is able to adopt innovation to address challenges that face the health system (Alliance for Health Policy and Systems Research, 2016). This principle was supported by Emma, even though she recognized there was still work to be done in this area. She stated, "creating processes and policies so that people know what to do, in terms of innovation or ideas; to be clear in our message and have engaged staff means you never have to worry that they won't do the right thing."

In the province of Alberta, a planned change to the provincial health system's clinical information system is underway. The Connect Care initiative is designed to be a centralized province-wide information system that supports timely access to decision making tools and information to facilitate interprofessional collaborative and consistent care across providers and organizations to help improve patient outcomes (Alberta Health Services, 2019). This initiative and its organization specific processes for innovation adoption and integration are associated with greater adherence to EBPs through clinical process alignment (Everson, Lee, & Aldler-Milstein, 2016). Emma thought the Connect Care project was "a game changer" that "will help us standardize protocols and care within the province." It is also an example of a top-down approach to innovation implementation in the organization as all health agencies are mandated through the provincial government to participate in this initiative.

Regardless of a top down approach for many quality improvement initiatives, Olivia perceived it was important to collaborate with staff on policy development to ensure it works for them. She described a situation where best practice for spinal injury involves five staff members to move a patient safely but acknowledged it wasn't feasible in all settings due to staffing constraints. She stated,

> "in rural settings, this isn't possible, so we had to work with the frontline to see what worked for them. It really is about breathing life into a policy, so that people clearly understand what they are supposed to do; they are aware that the policy exists and then you can make it work for them on site."

Organizations that have robust interoperable or intersystem health information exchanges facilitate complementary strategic initiatives, such that the benefit offered by one initiative may depend on the presence of another (Jones, Rudin, Perry & Shekelle, 2014). For example, in the rapidly changing environment of clinical practice, practitioners need timely access to current polices that respond to and reflect evolving practice conditions, evidence, and use of technology, to make the best care decisions. Innovation implementation strategies that are supported by clear and up to date policies support workflows and processes and facilitate evidence-based decisions to produce better patient outcomes (Chaudhry et al, 2006). Olivia gave an example to support this premise within their organization. She stated,

> "right sided surgery protocols started at one hospital then rolled out throughout and became policy with check in and audits to ensure consistency [across the organization]. They also impacted other surgery protocols that were invasive."

Once a clear understanding of what innovation means to the organization is achieved, most participants commented that leadership commitment was next. Commitment represented

endorsement from senior leadership, indicating that the innovation aligned with the organization's mission, values, and mandate and was fiscally responsible. Several respondents felt appropriate and sustainable allocation of resources was key for the success of innovation implementation. The findings support that despite the widely held belief of the promise of health innovations, several initiatives end in failure due to resource limitations (Dennehy et al., 2011). Tom responded, "make sure you have the tools and resources, so people know what to do with innovation." This was important as in many cases resources were not well managed in the process of innovation implementation. Jennifer stated "I find with initiatives that are very important and have direct patient impact, it's bare bones and then things fall off. There's not enough support."

In the process of implementation, several decisions need to be made that impact patient care. To help improve the success of large change initiatives, smaller projects are often used to test the water and work out any wrinkles in processes. The testing of quality improvement strategies by implementing pilots or small trails is routine in healthcare to ensure that healthcare interventions improve quality and patient safety before widespread implementation (Hussey et al., 2013). However, the findings align with the literature that suggests the effectiveness of continuous quality improvement methods used are variable and create challenges for those evaluating them and impact the ability of leaders and policy makers to synthesize a coherent understanding that informs policy and practice (Brennan, Bosch, Buchan, & Green, 2012). Emma thought trials were an important step to undertake; she stated:

> "Once we have trials, especially with something that has never been done before, we can then convince ourselves and others that it makes a difference. Innovation on its own, if you are going to plop it down and that's it; it will probably fail. If

we give the system and the people the opportunity to at least figure out how it works and that there is benefit to it, then the likelihood of it succeeding is better." She suggested there are benefits to employing projects and trials to help create synergies of roles and socialization of knowledge through implementation processes, which create opportunities for team bonding, sharing of lessons, and celebration of achievements. Tom stated, "in my experience as a healthcare leader, we tend to be a bit adverse to significant change, but we don't mind trialing things." David thought the forgotten trials had become more prevalent through the integration of departments. He stated, "there's so much response pressure at different levels now… everybody thinks their own stuff is the most important and I don't think all priorities are shared." However, Tom stated "it's okay if we do things a little differently across the organization. Our business is actually done differently, so you can't cookie cutter stuff." The findings support that when competing forces are at work, the focus on some initiatives may wane or people may become disengaged in implementation processes (Dixon-Woods et al., 2014).

Experimental learning requires repeated practice for safe adoption of new practices. However, the findings suggest the implementation of continual trails or mini-projects, to ensure appropriate fit or merit of an innovation, are often skewed by those who are risk adverse and lack accountability. Prior arrangements and clear negotiation of peripheral issues such as follow-up mechanisms, stakeholder involvement, and implementation outcomes are often overlooked and leave trails languishing without purpose or reasons to proceed or terminate. The findings build on studies that argue health organizations often use inconsistent implementation approaches for evidence-based decision making because of a lack of expertise and resources (Yan, Kong, Lawley, Weiss & Pagan, 2015).

Many of the leaders thought trials need to have end dates. The findings build on research that argues leadership involves change and task orientated behaviours that influence the clinical setting and the organizational infrastructure that supports clinical care (Gifford et al., 2018). Karen summed this up in her statement "there is wisdom in ending that project and saying what's next or what are we going to do with this and are we going to do anything with this?" In some instances, trails are a good way to test the water, however, most participants, like Jennifer thought "we tend to take on projects and trails and never finish them." Conversely, William perceived "engaging in incremental steps and minor changes to the system may not be of benefit at all; sometimes you need a completely new process, and you need to throw the old way out."

The findings affirm knowledge about the quality of patient care is an important starting place in the change management processes in healthcare. The first steps for effective implementation of innovation in patient care is understanding the current condition of actual care delivery, analysis and identification of gaps or aspects of care that should be changed, and possible ideas or ways of introducing innovation (Munneke et al., 2010). The findings suggest leaders are cognizant of well documented change processes and theories and rationale that support change management in healthcare, often referring to popular change literature in their interviews. For example, when asked how the organization measures innovation, Olivia mentioned the use of the popular Lean management principles, which were adapted to create the organization's framework that guided the Path to Home project (Covenant Health, n.d.). However, she stated "we focus on the work to attain excellence and quality care, more than monitoring and measuring." This illuminated the potential for variance in innovation implementation strategies across the organization. Conflicting messages and actions may impede employee perception of innovation as necessary and essential to improve patient care, which

constrains adoption (Rogers, 2003; Greenhalgh et al., 2004). If a deficit in patient care is not apparent or a supportive argument for change is missing, workers are less compelled to integrate innovation as part of an overall goal of improving patient care. Similarly, the findings build on research that argues innovating a product or service is more than a strategic or technical challenge for members, it is also a design and process challenge that must take into account the changing nature of strategic contingencies over an innovation's life cycle (Westerman, Mcfarlan, & Iansiti, 2006). This was confirmed by Olivia, who stated "when we adopt innovation, we often miss the change management process in healthcare. We think it's a better idea so therefore people should and will adopt it." This suggests leaders need to be aware of how and when to structure processes that facilitate flexibility, uncertainty, and control as members move along a continuum from introduction and adoption of an innovation initiative until it is fully embedded in practice.

The diversity of viewpoints suggests the leaders within the organization have not yet converged on a common meaning of innovation for the organization. This impedes integration and collaboration of strategic approaches through existing internal units, team structures, and processes. However, this also provides opportunity to build and strengthen internal resources and capabilities for sustained system level coordination of innovation.

Creating linkages.

For hospitals to be successful in innovation adoption, healthcare professionals across the organization need to change behaviours and integrate new ways of doing into their clinical practice. Creating linkages is a sub-theme that reflects networks and groups perceived to be beneficial and provide meaning for adopting innovation in practice. Involving individuals in developing and executing implementation strategies from the early stage of innovation

implementation to disseminating evidence through teams and communities of practice at the front line, were seen by most respondents as effective collaborative approaches to achieve innovation diffusion.

There was agreement in Betty's perception that "the wisdom that comes from a group is much better than the wisdom that comes from an individual." Engaging stakeholders, creating robust networks and groups to mobilize knowledge is common in healthcare practice and is seen as a strength of an organization. The findings support the research of Norris, White, Nowell, Mrklas, & Stelfox, (2017), which argues engagement is a respectful process that brings people together to form meaningful partnerships and to participate across phases of healthcare improvement, which are continuous and require cultivation over time. Olivia stated;

> "If you do the work upfront, you will move faster later on. So, we do a lot with collaboration, with stakeholder involvement, involving whoever is going to be impacted by whatever changes and what that looks like."

Internal and external stakeholders were seen as critical in managing innovation adoption in practice. Effective leaders interpret and make sense of what is going on inside and outside the organization. When asked how innovation adoption and integration is measured within the organization, Tom stated he had to understand and accept the innovation first so he could influence his staff. He commented "I need to get buy in [myself] so that my staff can." Health leaders need to look to whom they can partner with and how that impacts innovation. James thought due to the structure of healthcare in Alberta, the ability to politically influence system change was best served through innovation. He stated,

> "we really don't have a direct line to government. Really our contract is with Alberta Health Services so that makes it [influencing change] more difficult…so I think it's through innovation. There's lots of things we can do to help show the way."

In Alberta, the Ministry of Health, sets policy and direction to achieve sustainability and accountability in the publicly funded health care system (Government of Alberta, 2018). Covenant Health and Alberta Health Services work together along with other smaller agencies to provide coordinated and comprehensive health care services across the province. From the interviews, there was an awareness of the need for leaders to move beyond the walls of the hospital to look for opportunities to influence the health system and demonstrate for change. The findings suggest there was space for improvement in the healthcare system wherein technology and innovation may provide some solutions. Olivia perceived that,

> "…we can start making small gains. If you've been to a physician's office – it's the worst place to be as far as a total time waster. In a restaurant they give you buzzers, and say when it goes off, come back and see me. I think there are tons of things that we can do to make the experience better for the patient."

James felt that:

> "One of the things that we have not done well in Alberta and it's going to bite us, really very quickly, is that we haven't transformed the healthcare system. Our way into our healthcare system right now is still through acute care which is wrong. It's completely the wrong model. It's the most expensive model. It's the most complicated model and sometimes it comes with the greatest risk. And if we don't start to shift the care and where we provide it and what it looks like, we are not going to be able to cope in the next 10 years or so as our baby boomers continue to age."

Innovation is an important conduit that enables transformation of health systems, enhances quality of patient care, and facilitates collaboration and transactions across organizational boundaries. Innovation changes care practices as James stated, “there’s tons of technology that you can do to monitor people in the home and they’re already doing it in many places like the States; its more cost-effective and better for the patient experience.” Healthcare has witnessed changing care modalities that have taken advantage of innovation, including gamification to help patients understand their chronic disease; use of digital health applications, such as with electronic health records; use of GPS systems for tracking dementia patients; and telehealth for providing access to remote patients (Vadillo & Estrellita, 2016). The findings concur with the argument that there is risk for organizations that break with prevailing industry assumptions about change (i.e. adopting popular business models rather than maintaining traditional models); however, hospitals also need to reflect on their purpose, obligations to those they serve, and evolving knowledge practices in their field, as congruent reasons to revamp what and how they change (Bigelow & Arndt, 2005).

The findings support healthcare leaders’ ability to affect change rests on their social connections and networks with people inside and outside the organization, that advance capacity building for truly sustainable care advantages (Glegg, Jenkins, & Kothari, 2019). When asked to comment about generational differences in forming creative teams that use distributed learning for innovation adoption, Olivia stated “we think the group is the go-to” for creating synergies that support the “next best steps for the patient.” She stated, “it’s not really the generation they are [the workers]; it’s about the wisdom that their experience has brought to their practice.” She further elaborated,

> " it also has to do with the collaborative team; the very best teams that we see on site are those that are discussing at the bedside with patients and families and acting to make a determination of what today is going to look like for them in order to reach a goal in the future."

The findings support leadership collaborative actions and the promotion of teamwork rests in clarity of direction, alignment with mission and mandate, and commitment of resources for successful adoption of innovation (Eby et al., 2000; Edmonstone, 2011; Zadvinskis et al., 2014). However, contemporary and often global networks that make up clinical teams and the dynamic nature of the evolving workplace underscores the powerful and sometimes intangible roles that culture, and complexity play in contemporary change processes (Mitchell et al., 2012). Tom stated, "we have human constraints with innovation; you actually need people to support these things." The findings build on studies that argue individual or group interests may undermine collaboration when the value proposition of an innovation is understood differently by each team member (Shaw et al., 2018). Employees who fail to commit to or engage with collaborative activities may impede successful innovation diffusion (Alder, Koon & Heckscher, 2008; Arnetz et al., 2015).

In such a shifting landscape, the findings support pieces of the implementation process are missed. The findings suggest the processes that are commonly missed occur at the very beginning of developing a plan for innovation and then with evaluating the progress and impact an initiative has on patient outcomes. Without continuous monitoring and explicit feedback mechanisms on clearly defined metrics, roles and responsibilities, and opportunity for revisiting the processes and people put in place, evaluation of innovation impact is mostly subjective (Grol et al., 2013). Parry et al., (2013) recommend a formative theory-driven evaluation process in

which evaluation findings are fed back to initiation leaders on a regular basis. The findings affirm consistent evaluation processes are required across the organization for better analysis of innovation outcomes. To be most useful, evaluation methods need to deliver the evidence needed for decision makers to leverage innovation in managing strategic contingencies within and across units, the organization, and the broader health system.

Evidence of practice efficacy.

The sub-theme of evidence of practice efficacy illuminates the sense making of innovation benefits in clinical practice. Achieving measures of success in the process of innovation implementation can promote confidence in the plan, strategies for scale, ability and agility to respond to failures, and strength to seize opportunities. The findings revealed that although most people appreciated the importance of evaluation in innovation implementation, they realized this was a shortcoming of the organization. The prevalent storyline among the participants was that review and evaluation could be done better. Through the deployment of health innovations, there is recognition of the change and its related processes must be tailored to the realities of the organization in question. David stated;

> "At the end of the day, technology and innovation can help support the care we want to give but right now we're still high touch, hands on, care provision. Technology absolutely needs to come in, but we need to be careful it doesn't become a replacement for that high touch and that caring and those emotional and spiritual connections that are important to us as an organization."

The perceptions of evaluation included the current state of evaluation, challenges identified, and thoughts on how to improve evaluation of innovation implementation across the organization. Tom understood the notion that in innovation implementation "you need to understand upfront

what you are trying to achieve, what are those metrics or indicators that will help you understand whether the trial was successful or not."

Eight of the ten respondents concurred with Emma's statement that "change management needs to be robust, and we still falter with that and with follow-up." Betty responded, "it seems there is no deliberate way that people go back and re-evaluate." James mentioned "there needs to be a sustainability plan or else people go back to the way they were doing it before, so you need to build that plan in."

Some reasons for lack lustre evaluation processes were suggested to be due to relationships in the workplace, which may inhibit honest feedback in some instances. The findings support the argument by Cleary et al., (2018) suggesting strong leadership competencies are critical in enhancing health system performance. The authors suggest relational leadership development promotes increased trust and team cohesion across and within levels of the organization (Cleary et al., 2018). Having a different evaluation team than the implementation team was seen as worthwhile to diffuse relational tensions. Jennifer and William shared similar stories about how relationships impact authentic feedback. Jennifer stated:

> "It's sort of like, have you ever had a friend who went and got their hair done and you think it's the ugliest cut you've ever seen? But they're your friend, so you're really not going to tell them it's ugly."

Betty shared a story about essential learning and the barrier it poses for staff as many modules are too lengthy and cumbersome to synthesize their meaning for practice. Yet feedback has not been well received for change. She stated;

> "They built these beautiful modules but they're too long and they go into the weeds. It's like you gave free will to the bride and she became bridezilla; we don't need people spending an hour and a half on WHIMIS every year."

While others thought that lack of leadership vision and compelling rationale for change, keeps initiatives limping along without any ability to build capacity, perpetually competing for resources. Donna felt this was due to people not understanding the rationale behind the change. She stated "we need to convince them it will make a huge change to patient care and to their practice. Then you have to convince them to sustain it [the change]." There was also an awareness of the downstream effect of an innovation and exploring that impact. Emma shared the story of a personnel managing system, ePeople, which was an innovation implemented in the human resource department of the organization. A downstream effect was that it moved unintended work from one area to the next without associated resources moving with the change, dramatically impacting workload in the affected area. She stated, "we learned it's not enough just doing a review of the widget on its own in isolation but [thinking] about what are the other potential impacts." The findings support studies that argue greater attention to mis-implementation strategies lead to the development and use of effective interventions and more efficient expenditure of resources (Padek et al., 2018).

David thought accountability was key. He suggested people need to be accountable for their behaviour and for leaders to check back and provide feedback and opportunity for coaching. He stated;

> "How many times do we have people that get moved into a position or take on a project and nobody have ever come back and told them that's not what we need or that's not the right thing? Rather, there's a lot of subtle messaging, which ends up

with people being frustrated and upset."

There is potential for errors to occur during change transitions. Staff may create work arounds to deal with a perceived poor fit of an innovation to their values, aptitude for innovation, and support for additional training. Staff work arounds may also impede knowledge translation into innovation, which ultimately impacts performance development (Ornek & Ayas, 2015). Donna felt "we need to stop rewarding people for work arounds." She thought, it was more effective to be transparent in demonstrating the evidence for the change and its impact on practice and patient outcomes.

Olivia thought that although we may not have numbers or statistics on outcomes, we know intuitively that the innovations are making an impact. She stated,

> "one-minute pulse check to detect atrial fibrillation is an innovation working for patients. It's simple and effective and we understand the social return on investment."

The findings support studies that suggest innovations are adopted because of perceived face value or because of their intuitive appeal as plausible solutions (Dixon-Woods et al., 2014). However, the lack of feedback and evaluation can negatively impact care. This may result in a continuation of services that are not beneficial to the patient, missed opportunity of care improvements, a disengaged workforce, and a waste of valuable resources (Orlikowski, 2000). The findings reflect inconsistent evaluation processes and gaps in feedback mechanisms, which resulted in ambiguity of innovation efficacy.

Summary of Collaboration Theme

There is perceived risk in embarking on new ways of doing but also in maintaining the status quo. Healthcare organizations, through leadership practices, are responsible for

establishing the functional and governance structures, processes, and technology required to provide the capability for healthcare practitioners to adopt innovation and exchange new knowledge for quality patient care (Heath, Appan, & Gudigantala, 2017). The findings suggest teamwork is more inter-dependent, more dynamic and less certain as practitioners are constantly negotiating connections between information, knowledge, and action under conditions of increasing uncertainty and ambiguity. Requirements for new knowledge and skills are often not given enough time to embed. Multiple and co-existing teams are frequently forced to compete for resources, organizational support, and recognition. Perceptions are that stability in the workplace has been replaced by a permanent state of change, where members are encouraged to be fluid as a means to adapt and work with growing instances of ambiguity (Bleakley, 2013).

Application of the *facilitation* construct, from The PARIHS framework, provided a lens to explore how an organization manages and facilitates an innovation into practice and realize its benefit (Harvey et al., 1998). The findings from this study show that evidence, in the form of innovation, is not consistently implemented in clinical practice mostly due to inconsistent strategies and criteria for education, efficacy, and evaluation of outcomes. Thus, leadership fell short in facilitating innovation because leaders were unable to tailor and drive processes that reliably enabled workers, within the clinical setting, to adopt and apply innovation appropriately.

Clearly thought out and carefully planned collaborative mechanisms for organizational innovation diffusion were desired, however, not yet realized throughout the organization. Aligned with the literature, barriers and challenges exist, making diffusion of innovation difficult (Rogers, 2006; Rycroft-Malone et al., 2004; Klein & Knight, 2005; Woiceshyn et al., 2017; Helfrich et al., 2007; Jacobs et al., 2015; Klein & Sorra, 1996). Improvement initiatives are complex and context sensitive that vary depending on testing stage, development stage, and stage

of spread and scale (Parry et al., 2013). These elements require alignment between the goals of innovation and the design and evaluation of implementation strategies (Smith & Polaha, 2017).

My findings affirm Woiceshyn, et al. (2017) study for complex innovation implementation. Competing initiatives tax organizational resources, most notably through shifting resources or provision of minimal or insufficient resource allocation. The findings support leaders need to prioritize initiatives, which includes streamlining and standardizing processes for innovation appraisal. Innovation implementation also requires clear messaging of innovation value, employment of coordinated well-planned actions, and alignment with the organization's purpose and mandate. Woiceshyn et al., (2017) suggest leaders should identify "one broad innovation initiative as primary to which all others are subordinate" (p.85) as relief from the constant flow of initiatives being rolled out in healthcare organizations and to help focus coordinated action. My findings suggest rather than one initiative, as the overarching driver of innovation, respondents focused on their mandate of providing care excellence as the umbrella to integrate and coordinate patient care improvements.

Summary

In this and the previous two chapters, I have discussed and reviewed the findings from my interpretative thematic analysis. Chapter four presented my analysis of the theme person-centredness, which underscored the contextual influences of the organizational culture. The discussion focussed on elements of person-centredness and how leaders perceived their influence in creating a culture of innovation. In chapter five, I organized the discussion of leadership and change around the central theme of leading change, which highlighted the sensemaking events in innovation adoption. The discussion in chapter five focused on how leadership influenced others in their adoption and implementation of innovation. The findings centred on knowledge

mobilization, capacity building and adaptability of workers as key pieces in changing processes of patient care. Relational leadership was another key finding of chapter five. The findings supported relational dynamics and the context are interwoven with an emphasis on the nuances and processes of relational leadership for better adaptability. Finally, in this chapter, I presented the theme of collaboration, which reflected the benefits of innovation implementation, and provided analysis of elements that leaders' perceived were essential for creating linkages and discerning impact for innovation diffusion in the organization.

In the following chapter, I will provide an overview of the study, synthesis of findings, personal reflection, and my conclusion and recommendations.

Chapter Seven: Overview of Study, Synthesis of Findings, Implications and Compelling Questions, and Final Reflection

The purpose of this study was to explore health leaders' perceptions of innovation implementation in clinical practice. In this final chapter, I am able to take a moment to reflect on what this research process has meant to me, and what it may mean to my colleagues, other health practitioners, and to the greater health system. I have gone back to the very beginning and the thoughts I had which initiated my research, to ask myself questions and to consider how this experience will help build my capacity as a leader and motivate me to create, understand, communicate, and inspire innovation diffusion in my setting. These personal questions and contemplations are taken up in this final chapter which synthesizes the findings related to each of the research questions and presents implications and compelling questions related to practice, policy and future study of healthcare leadership and innovation adoption in clinical practice.

Overview of the Study

Like many other industries, failure to re-invent threatens the very existence of healthcare organizations. The fast speed in which our world runs with its exponential complexity and advances in new technology exacerbate the challenges leaders face. Innovation has been viewed as one of the key factors contributing to healthcare reform and to ways that healthcare organizations can address challenges (Canada Heath Infoway, 2019). Innovation has a context-sensitive nature (Jimenez-Jimenez & Sanz-Valle; 2011; Kitson et al., 2008; Kislov et al., 2014). For example, the modes of innovation within the healthcare sector differ from those within other sectors, like manufacturing or in the natural resource sector (Health Canada, 2015). Scholars of innovation recognize that what drives innovation and the way it is implemented are heavily

related to the characteristics of the setting in which it operates (Rogers, 2003; Davis, Bogozzi, & Warshaw, 1989; Venkatesh & Davis, 2000). Healthcare organizations are complex systems with evolving landscapes that increasingly are seeking innovation and organizational means of improving the quality of patient care and service delivery. Prior research has recognized the importance of leadership in organizations, with some identifying it as the most important influence on innovation diffusion (Weberg, 2010; West et al., 2015). Despite the potential of innovations, their adoption by hospitals in Alberta has been slow. The contemporary literature provides inadequate insight into how leadership impacts and builds innovation capacity of health systems and of those who work within them and are currently involved in change. Limited understanding of these issues and how these meanings relate to improving innovation adoption in clinical practice were central to the purpose of this study and its three research questions, namely, what:

1) have hospital leaders learned from introducing health innovations in practice?
2) have health leaders learned about the workplace and how does it influence the acceptance, adoption, and integration of new health innovations?
3) benefits or efficiencies are realized with the implementation of health innovations and how are they measured?

The theoretical significance and the contribution of this study can be understood in terms of new perspectives on leadership for greater innovation adoption in clinical practice, while improving the skills of workers, facilitating employee satisfaction, and creating positive work environments (Institute of Health Economics, 2015; Grimshaw, Eccles, Lavis, Hill & Squires, 2012). Additionally, this study offers original insights into sociocultural perspectives of how leaders interact, understand, perform, and organize work of innovation adoption collectively in

practice that are understudied by healthcare and leadership scholars (McDonald, 2014). These findings offer new meanings that healthcare leaders and policy makers might reflect on for purposes of better innovation diffusion for sustainable quality patient care. With these new insights, I, as the researcher, recommend further research of relational leadership practices and of innovation adoption in clinical practice settings.

Methodology

The study was designed to explore perceptions and lessons learned from healthcare leaders working inside a large health system that contained acute care hospitals that manage the adoption and diffusion of innovation to transform the health system and to improve patient care outcomes. The realities of clinical practice and its complexity and dynamism led me to embrace philosophical pragmatism in forming my understanding of this social research (Denzin & Lincoln, 2011). My grounding in a relativist ontology and a subjectivists epistemology provided methodological direction for this study (Denzin & Lincoln, 2011). I chose an interpretative qualitative study design, using hermeneutic phenomenological concepts to gather rich descriptions of participant experiences of working with innovation implementation. Participants considered to be acknowledged leaders within the health system and who were responsible for decisions about innovation adoption and diffusion across the organization were contacted for study participation. The organization's internal media relations department was the first point of contact and for initially identifying and contacting leaders, who were identified as innovation experts, for the study. Subsequently, snowballing and solicitation techniques were used to achieve more volunteers for the convenience sample. Semi-structured interviews were used with ten participants to capture an emergent understanding of the phenomenon. Thematic analysis of

the data captured multiple subjective perspectives of participants' lived experiences of working with innovation in clinical practice settings (Creswell, 2007).

I used Guba's (1981) seminal work to establish data trustworthiness, applying the four constructs of credibility, transferability, dependability, and confirmability. Credibility was created by interviewing ten participants to achieve multiple perspectives of the phenomenon. I also engaged in member checks to test my developing ideas, widen my vision, probe my biases, and corroborate my interpretations. To make possible transferability judgements, I used Lincoln and Guba's (1985) recommendation of providing thick descriptions in qualitative research by transcribing interviews verbatim as I progressed through the study. A review and record of the processes of the inquiry established dependability (Guba, 1981). Finally, ongoing reflexive and reflective practice, including regular member checks to address my biases and interpretations, helped me demonstrate confirmability of the development processes and my decision making during the study.

Synthesis of Findings

The insights and experiences of the ten participants, as well as my own lived experiences, contributed to the following synthesis of findings related to the research questions posed and informed my reflections about the relationship between leadership and innovation implementation in hospitals.

Research question one: what have hospital leaders learned from introducing health innovations in practice.

There is recognized effort in improving the quality of patient care and of healthcare delivery systems across the world (WHO, 2015). As part of quality initiatives, efforts to improve innovation uptake in healthcare and translate evidence to practice, have resulted in more

emphasis being placed on leadership practices. Better understanding of how leadership shapes innovation diffusion would enable decision makers to promote acceptance and increase translation of new information and ways of doing into clinical practice and policy (Grimshaw et al., 2012). Effective leadership in healthcare is difficult as leaders need to consider "the roles, relationships and practices that are made within contexts and through social interactions, while learning with people who share these contexts" (Fulop & Mark, 2013, p. 257). Relationship-focused leaders have been shown to improve workers' working life, feelings of empowerment, higher levels of engagement, and job satisfaction (Melnyk et al., 2010; Kim et al., 2017). The importance of placing people first was a theme that resonated throughout the interviews and was tied to many of the findings in the study.

The findings of this study reflected the significance of caring and its importance to providing compassionate care. The emphasis on caring is not surprising as it is recognized as a core competency for many health professions (CNA, 2017b). The concept of caring has also been studied extensively in the literature and is an essential component central to social relationships between care providers, their patients and their families, as well as with other health colleagues (Watson, 2008). Person-centred care and practice stems from the increasingly recognized value of caring as a foundational element for developing high quality healthcare (WHO, 2015; Kitson et al., 2008; McCance et al., 2011). Placing people first and putting *person* at the centre of care delivery was a priority identified by all of the health leaders interviewed for this study.

Krause and Boldt (2018) define care in healthcare "as a set of relational actions that takes place in an institutional context and aim to maintain, improve or restore well-being" (p.3). This definition positions context and social relations as part of the well-being process in healthcare.

For care providers, the instances of care can be both episodic and ongoing; subject to the clinical setting and the institutional rules and regulations that govern; and are bound by the professional dynamics of the patient-care relationship. Care practices are human interactions, which practitioners ethically undertake in response to patient needs, vulnerabilities, and dependence (CNA, 2017b). The concept of person-centred care is practice that is "underpinned by values of respect for persons, individual right to self-determination, mutual respect and understanding. It is enabled by cultures of empowerment that foster continuous approaches to practice development" (McCormack & McCance, 2010, p.13).

The findings suggest that health leaders recognized the importance of caring and the concept of person-centredness which helps guide practice decisions, actions, and behaviors in the practice environment. These values transcended the goal of creating a person-centred culture within the organization. Leaders suggested these concepts were not limited to provider-patient interactions but also included interactions between colleagues and all other parties in the care dynamic (Nolan et al., 2004; McCormack & McCance, 2010). The implementation literature places significant emphasis on transformational leadership as a useful leadership style to promote inspiration and engagement of employees, which is seen as necessary for innovation adoption (Weberg, 2010; Bass, 1995). However, the findings from this study suggest relational leadership is nuanced. The challenges and maneuverings required by leaders facing VUCA (volatile, uncertain, complex, and ambiguous) realities, suggest further exploration of contextual factors and relational pieces is required for greater uptake of innovation.

Leaders who demonstrate relational leadership act in a "way of being and relating with others, embedded in everyday experience and interwoven with a sense of moral responsibility" (Cunliffe & Eriksen, 2011, p. 1432). The findings suggest transformational leaders acted as

champions in many instances, inspiring and motivating practitioners toward innovation adoption. Authentic leadership was regarded as a means to build trust and demonstrate to workers that their contributions were valued and servant leaders underpinned their actions by their desire to serve others and acted in the service of the mission of the organization (Hale & Fields, 2007). Transformational leaders, authentic leaders, and servant leaders may all be useful in aspects of the implementation process, however, for full meaning of innovation diffusion to be achieved, relational practices were explored from both an entity and a process lens. Characteristics that are part of the entity perspective, such as individual traits, actions, and behaviours, exhibited influence when they were aligned between people and when people shared common goals (Uhl-Bien, 2006). The process orientation within relational leadership builds on the concept of entity by further exploring how interactions between people and the intersubjectivity of those processes inform the relational accounts within the practice setting. Relational exchanges created multiple meanings and perspectives that continuously emerged during this study. Relating is therefore a constructive process of creating meaning limited by socio-cultural contexts (Uhl-Bien, 2006). Thus, this study builds on previous research that has explored what constitutes relational leadership and from where it originates (Lichtenstein et al., 2006). It also recommends further study in relational leadership in clinical practice to tease out nuances that exist and their relevance to successful innovation diffusion.

The findings reflected shared agreement of organizational value alignment with decisions regarding innovation facilitates high quality care, as core priorities and purpose of the organization (Dixon-Woods et al., 2014). As such, relational leadership needed to be responsive to the multifaceted aspects of clinical practice, including pace of change, flow and volume of information, power relations, stakeholder involvement, and resource limitations. The complexity,

interdependency, and dynamic nature within which healthcare organizations operate has shifted leadership to more of a collective and collaborative model. The findings suggest leaders valued a systems approach and encouraged leadership development across the organization to better respond to clinical realities. There was widespread recognition that leaders exist throughout the organization and function dependent on their specific context for best outcomes. It was perceived that successful implementation of innovation required the coordinated efforts of multiple actors across the organisation (Leslie & Canwell, 2010). Fostering collective leadership was also seen as a means to help people see the larger practice system and the role innovation had in building a shared understanding of quality patient care (Senge et al., 2015). This understanding was seen to be a driver for workers within the organization to collaborate more effectively and to work together for the success of the whole in adopting innovation.

In healthcare organizations, successful leaders are those who have appropriate cognitive skills to manage complex systems, demonstrate emotional intelligence to enable people to adapt to change and its associated demands and challenges, and have the ability to develop and build leadership at all levels of the organization (Leslie & Canwell, 2010). Leadership is thus expressed and defined in the actions and decisions of leaders. The findings align with the literature which suggests leadership traits and competencies are influential features of healthcare leaders (Boyatzis, & McKee, 2005).

There was shared sentiment that leadership within the organization was dependent on context and was a collective of styles across the various organizational layers and sites. There was an affinity for leadership that was contextual, relational across systems, and responsive. According to the respondents, understanding the context and the people interacting in that context was significant to developing caring relations. Even though this was not consistently

demonstrated across the organization, this practice is consistent with the person-centered literature, which suggests leadership patterns are related to organizational culture and structure and extend to managing the linkages of relationships effectively (Sheikh et al., 2014).

The various leadership styles and approaches were united in the overarching mandate of the organization to provide quality evidence based person-centred care. Cultural identity was closely associated with the underpinnings of person-centredness and philosophy of care excellence. The findings revealed there was a strong sense, among people who worked within the organization, of their culture being unique and of their caring practices being superior, which set them apart from other care organizations in the province. Creating networks and building a sense of community that encouraged engagement was purported and idealized operationally with the drive to innovate as a means to improve patient care (Zadvinskis et al., 2014).

However, the complexity inherent in clinical practice settings created tensions, ambiguity, and disruption of normal processes. Having worked in those types of environments, myself, I know that workers, strive to feel some sense of calm in that storm. Relationships which are positive and caring, even though at times may also be divergent and changing, build people up and help provide meaning, which helps build one's capacity and strength to adapt to uncertainty. The findings reflected pockets of discontent existed throughout the organization, suggesting person-centered practices fell short of expectations. This was thought to be in part due to overburdened staff, which resulted in stress that decreased workers' capacity to support others and to take on new things. It was also thought to be due to inadequately developed staff connections, which prevented workers' and leaders from appreciating people beyond their role as *worker* within the organization. Congruent with the literature, there was a sense that people need recognition for the work they were doing, and for most, job satisfaction was critical (Wong

Greenhalgh, & Pawson, 2010). Leadership traits and competencies were perceived to help convey the value of innovations to care delivery, work processes, and subsequent impacts for quality patient care outcomes. However, the difficult part for leaders was job satisfaction, and how it was defined, varied from one worker to the next and was influenced by the context. The findings suggested there was room for improvement in current strategies, actions, and state of communication channels for better success in driving change.

A unique identity built on compassion, caring and a person-centered care philosophy resonated with workers within the organization. Yet, only one of the respondents linked these elements and the impact their unique culture may have on branding and the impact leveraging their caring brand might have on competitive advantage. The findings revealed all leaders sought quality patient care and strove for service improvements, which builds on Uhl-Bien and Arena (2018) argument that effective leadership looks to unleash the potential of its system and its people as strategies for adaption. The findings illuminated an opportunity for the organization to reflect on the power of their culture, people, and caring practices as a model for influence and reform.

Research question two: what have health leaders learned about the workplace and how does it influence the acceptance, adoption, and integration of new health innovations.

Health innovation benefits both patients and care providers with respect to perceived usefulness for improved quality of care (Zadvinskis et al., 2014). Yet, it is widely acknowledged in healthcare of a lag between new knowledge creation and its wide-spread use across health systems (Health Canada, 2015). Many of the innovations designed for healthcare are complex and require coordinated use by many organizational members to achieve benefits (Helfrich et al.,

2007). This requires people to adjust what they know by adapting their current knowledge to rapidly changing environments. Building capacities to undertake new knowledge translation into practice increases individual, team, and the organization's performance. There are several pragmatic reasons why healthcare organizations must be able to capture and apply innovations, such as promoting employee purpose and job satisfaction (Cain et al., 2019), work efficiencies (Jimenez-Jimenez & Sanz-Valle, 2010), proper functioning (Cummings et al., 2003), professional and public standards (CIHC, 2010), and financial pressures (Auditor General of Alberta, 2017). However, the central theme for all these reasons is solving problems with the goal of improving quality and safety of patient care (Grol et al., 2013).

Enabling effective leadership is crucial for organizations to adapt and respond to challenges they face (Uhl-Bien & Arena, 2018). Similarly, findings reflected leadership goals were aimed at ways to create meaning and convey implementation strategies, tailored for those to whom they served and influenced, so that workers engaged in innovation adoption and use. This study corroborates with innovation literature proposing a strong link between leadership, the perceived climate and setting for innovation, and innovation behavior (Rogers, 2003; Davis, et al., 1989; Venkatesh & Davis, 2000). Capacity building for innovation adoption was seen to be embedded within the context, relative to the significance the innovation had for solving practitioner problems, and the degree to which it aligned with the values and norms of workers and their work practices within their practice settings. The findings suggested the caring practice of workers placed focus on person centred leadership considered to be relational in its approach and collective in its ways to lead for health system transformation.

Leadership actions and tasks were based in many instances from an understanding and interpretation of strategic demands and contextual issues in a particular role and setting in the

organization. Similar to Roger's (2003) diffusion of innovation theory, which outlined motivation for adoption can be impacted by the meaning that an innovation holds; my findings revealed when people cannot interpret a connection between an innovation and its value, they had difficulty associating meaning with the innovation and were less likely to endorse its use. Effective organizational systems that support patient-centred care practices and the diffusion of innovation were part of corporate strategies. The findings reflect the vision depicting how and why innovations were to fit within the organization rested with leadership (Schein, 2010). However, the findings revealed that the connection felt by staff, to strategic leadership and their messages, waned through the hierarchy of the organization, and thus may be an inhibiting factor for successful change. This was perceived to be a result of ineffective implementation plans, poor communication, and ineffective collaboration between actors involved in innovation across the organization. These findings further support a need for greater efforts toward creating collective leadership practices so that strategic messages are more strongly linked at each level of the organization.

The findings reflect leaders perceived corporate strategies that demonstrated support for continuous learning and professional development across the organization were considered essential. It was perceived that it was the job of leadership to influence others and remove barriers for effective uptake and diffusion of new technologies and health innovations. The findings suggest leadership development was facilitated through coaching and mentoring practices, yet there was a lack of evaluation of leader performance on projects, patient outcomes, and employee working life. Thus, little is known about the effectiveness of leadership development in the organization and the related informal and formal training strategies and

programs. This creates opportunity for the organization to further refine leadership development programmes in the future (McDonald, 2014).

The findings suggested collective and consistent leadership approaches focused on building cultures of person-centred care were valued. Part of person centredness is interprofessional collaboration and teamwork (Senge, Hamilton & Kania, 2015). Effective teams working to address complex patient problem require members to work together and to support and receive input from all stakeholders impacted by change. The findings reflected a leadership objective was to bring champions and respected colleagues together to raise skill levels of members, build competency, and promote safe spaces for discussion and the sharing of knowledge. This aligns with situated learning and management research that identifies CoPs as mechanisms through which knowledge is held, created, and transferred (Lave & Wenger, 1991).

Champions were promoted for internal trust building endeavours and to drive innovation within the organization by senior leadership. Champions make a significant contribution to the innovation process by actively and enthusiastically promoting the innovation, building support, overcoming resistance, and ensuring innovation is implemented (Ritika et al., 2018). While many respondents favored the use of champions to drive innovation implementation (Hendel & Hackman, 2010) some respondents thought champions were overused in the organization and thus diluted their effectiveness.

For teams to succeed, they need to create value for both the members and the organization. From an organizational stance, merit of teams was demonstrated by leadership support, availability of appropriate resources, recognition of their value in linking learning between practitioners, knowledge producers, and policy processes to analyse, address and explore solutions to problems (Wenger, 2000). At the micro level, members who perceived value

participated and became engaged in team activities. The more formal use of teams by the organization, leveraged knowledge from innovation champions to direct learning and the distribution of new knowledge across units, which differs from the original informal nature of CoPs that Lave and Wenger (1991) envisioned. The perceived advantage, of actively managing teams, was to influence learning and the ways in which people function and the organization operates (Kislov et al., 2014). The findings also reflected while working in teams and collaboration are necessary components of learning, formally mandating them to fulfill organizational tasks, may serve to stifle members' motivation to participate. This was perceived, by some, to be controlling rather than facilitating the professional responsibilities and development of staff.

Mediating learning teams' production and practices impacts power dynamics. Power, which was originally shared collectivity and where control was null and void in the informal alliance of early iterations of CoPs, becomes more bureaucratic; subject to external forces and governance structures of management (Tintorer et al. 2015). The findings suggested, in some instances, the relational aspect of teamwork led to internal and external power imbalances that influenced innovation adoption, access to learning opportunities, and linkages between practitioners, policy makers and researchers across the organization. Similarly, these power imbalances impacted effective prioritization of innovations. There appeared to be a gap between ideals of implementing innovation for care improvements with policy and practices that enabled effective and efficient decision-making, followed by unified coherence in execution strategies. The findings highlighted a lack of deliberate action and consistent transparent processes for choosing and implementing health innovations, which respondents perceived required attention to mitigate imbalances of power, resource waste, and inequalities in care delivery.

Research question three: what benefits are realized with the implementation of innovations, and how are they measured.

The findings from the study reflected an emphasis on more of what leaders have learned about *not working* from their implementation efforts than from what has worked to facilitate the diffusion of innovation across the organization and those benefits. The system enablers and behaviours for uptake that were identified included, creating an effective plan underscored by a compelling identified reason for change, identifying champions who embrace change and are able to facilitate implementation strategies, harnessing positive teamwork, allocating dedicated resources, creating strong linkages with internal and external stakeholders and partners, and addressing sustainability through standards and policy. These perspectives and insights from respondents align with the literature on innovation adoption (Rogers, 2003; Greenhalgh et al. 2004;). An analysis of the themes appeared to highlight some enablers were more important to the leaders. In all of the interviews, successful diffusion of innovation was considered to be attributed to the dynamics of five enablers: compelling vision, purposeful transparent action plan, specific and consistent strategies, dedicated resources, and reliable evaluation and communication channels. These enablers were seen to address barriers and rate of uptake in clinical practice settings.

The success of innovation implementation in practice was seen as a gradated process that has many steps, involves multiple members, and is layered across the various levels and units within the organization. The performance and benefit of innovation was considered successful when it was routinely embedded in the work of members and minimally disruptive to their social relations and behaviours in working with it (May et al., 2007). There was consensus among

participants that knowledge-based healthcare required technology and innovation, skill development, and continuous professional learning in which person-centredness was not only a norm but also an attitude and a culture within the organization. The gain of critical knowledge and clinical wisdom, in the face of change, was seen to energize the social actions, methods, and practices of worker's in their use of innovation (Grace, 2007). The findings revealed healthcare systems are awash in change, which leads to continual refinement of roles, relationships, and policies that impact new definitions of practice. In this dynamic, practitioners have an obligation to their patients to demand environments that have organizational and human support allocations necessary for competent, safe, and ethical patient care (CNA, 2017b). Advocacy, communication, and transparency become critical and are embedded in change processes, often through indirect and mediated routes, such as creating networks with external stakeholders and developing brand awareness.

The emphasis placed on evidence-based practice and a drive to innovate healthcare has the laudable goals of enhancing patient care and reforming the health system for greater efficiencies that enhance sustainability. Collective practices bring diverse members together to share information and accomplish the work of patient care. Nonetheless, as part of the new realities in clinical practice, a shift in the meaning of teams and of networks is occurring. In this study alone, teams were identified as communities of practice, care huddles, and practice groups. All which held different meanings and performed differently according to respondents. Congruent with the literature, health leaders perceived these structures within the organization positively contributed to creating mechanisms to translate evidence and innovations into practice (Hoch, 2013). However, effective teams require a shared understanding of roles, responsibilities, and communication patterns (Weller et al., 2014). It is no surprise then that change, both

incremental and dramatic, caused angst for workers. Health practitioners have to work together, while simultaneously dealing with confusion and ambiguity, as they sort out new definitions of roles, processes, and structures that innovation brings. The findings suggest staff were overwhelmed with constant change, and for many, their ballooning responsibilities they felt pulled them away from the caring dimensions of their practice. Staff were concerned, a fall-out of innovation was the person-centered values they cherished being replaced by technical tools, layers of processes, and impersonal procedures.

It was perceived leaders need to routinely interface with teams and networks to understand the issues brewing, appreciate the advances being made, and evaluate the progress and impact of innovation initiatives. Consistent with the literature, facilitating collaboration enables people to take ownership of their actions and helps empower and share in collective leadership strategies, which improves worker well-being by promoting workplace engagement and reducing burnout (Hall et al., 2016; Hargett et al., 2017; Shanafelt & Noseworthy, 2017). The findings suggest there was a desire to better support and mentor people as they hone their leadership skills through regular evaluation and constructive feedback. This builds on literature that raises questions about how leadership development programmes achieve their aims to equip individuals to improve leadership skills, without measuring their effectiveness (McDonald, 2014). Similarly, the findings reveal collective leadership approaches and implementation strategies may benefit from engaging separate teams for evaluation rather than employing people involved in original implementation plans. This was seen as a possible strategy to address relational barriers between workers and project credibility. These factors were perceived to influence workers and prevent them from providing honest feedback to seemingly overly invested implementors and other stakeholders.

Positioning the organization to positively adapt to changes that come with innovation implementation require intentional organizational structures and processes that facilitate members' understanding of innovation. These formal and informal mechanisms cultivate skills in team building, networking, communication, and effective problem solving. The study findings are consistent with the implementation literature and highlight learning and the creation of new knowledge practices are realized through shared social interactions and clear understanding of decisional systems and mechanisms for adoption at the organizational level (Kitzmiller et al. 2010; Hargett et al. 2017).

Reflections and Compelling Questions

Health care organizations' central role is to provide safe and effective patient care. In Alberta, the health system serves the public and society. It does not operate in isolation but as part of a broader societal system and its influences. Disruptive technologies, those that displace an established technology and shake up the status quo, have continuously influenced and changed peoples' lives and the way they work. In the last 30 years, the Internet is probably seen as having changed life the most dramatically and perhaps is the greatest disruptive technology. The innovation, the World Wide Web, popularized the Internet and made available, for the masses, easy access to vast sources of information (Andrews, 2019). Technology has continued to disrupt systems, create new standards, and improve mainstream processes; health care systems are no exception. The difference is over time, the rate of innovation has increased dramatically. Most recently, healthcare has been disrupted by innovations such as digital health, nanotechnology, artificial intelligence and robotics that are changing the way in which care is provided (Brown, 2018). A significant challenge for health systems, during disruptive periods, is

to learn and change with new innovations while maintaining regular operations and providing safe quality care.

To further complicate matters, health systems are human systems. One of the greatest aspects of innovation in healthcare is its impact on people. This is usually viewed from a positive perspective as innovation is designed to enhance patient outcomes. However, health systems are made up of workers who interact with one another within and outside the boundaries of their workplace, with patients and families, with technologies, and the processes and structures of organizational life. These encounters are relational and shape the social norms and contexts in which people are situated, which in this study was delineated to be the clinical practice setting within an acute care hospital. Moreover, meeting patient needs in dynamic clinical settings is demanding. It requires adaptability, resiliency, and effective teamwork to make sound decisions and judgements based on the best information at the time.

A survey by HSBC, called the *Navigator: Made for the Future,* canvassed over 2,500 companies in 14 countries and territories, including Canada, to gain business leader insights on sustainability and success factors for the future (HSBC, 2019). The survey demonstrated upskilling employees and adopting innovations is only half the story; it found business leaders recognize they need to invest in their people to be successful (Weikle, 2019). Business leaders have discovered investment in the well-being of the workforce is a priority and essential for meeting the challenges and complexities of the modern world. This timely report resonates with my findings. For me, this study has illustrated innovation has the potential to transform healthcare but requires responsive effective leadership. Responsive effective health leaders, are those individuals who are person centred, committed to careful consideration of leadership approaches, equipped with sustainable resources and competencies, and have ambition for

sharing of knowledge and best practices to improve the care and care environment for patients, families, and health workers.

In preparation for undertaking this research, I spent considerable time reviewing the literature to gain a better understanding of my topic. I explored the literature on a variety of topics, concentrating on organizational culture, leadership, implementation science, communities of practice, teamwork, learning organizations, continuous professional development, and knowledge mobilisation. I also spent time reflecting on my own experiences with new technologies, organizational learning, workplace dynamics, and leadership. I have been fortunate to be part of both stellar work groups with exemplar leaders, and also, groups that have had terrible underlying forces led poorly by ill developed leaders. The breadth of these experiences has provided me opportunity to have an open lens to leadership. Additionally, I thought, this background, gave me a good grasp of leadership and innovation adoption in clinical practice. I was set to gain a better understanding of very pragmatic issues, as that is how I am wired, that would help progress innovation diffusion in clinical practice.

What I learned and what resonated for me, which was humbling and actually quite simple, in a sense; as it seems so obvious. Leadership is all about the people. Recognizing people's voices and their needs, includes those of the patient, family, and health worker. Person-centeredness essentially embraces the human character, the *humanizing* that came through in my research, of health systems. The philosophy aligns with what care providers do and has great potential for framing leadership practice and advancing person centered health systems with practical operational systems that put people first and are shaped by serving their interests. This way of thinking has stimulated me to look at the interconnectedness of people engaged in the health system and how this may be leveraged for decision making, trust building, shared

commitment, and supporting change. Although, I anticipated receiving more concrete lessons and strategies for innovation implementation, my take away has given me a salient perspective that I hope to build on with future research. Compelling questions that have come from this study are focused on the nuances of the relational interaction between leaders and workers. Why in some instances does a middle manager of a clinical area respond to innovation and another doesn't? How is their narrative about change so different when the message received is the same and the contexts are similar? What do leadership programmes instill for person centred development? How do we prepare new health workers and health leaders of the future to be person-centred?

As a final thought, I am prompted to draw parallels between my personal learning journey and the pond metaphor, in James W. Foley's poem:

Drop a Pebble in the Water

Drop a pebble in the water: just a splash, and it is gone;
But there's half-a-hundred ripples circling on and on and on,
Spreading, spreading from the center, flowing on out to the sea.
And there is no way of telling where the end is going to be.

Drop a pebble in the water: in a minute you forget,
But there's little waves a-flowing, and there's ripples circling yet,
And those little waves a-flowing to a great big wave have grown;
You've disturbed a mighty river just by dropping in a stone.

Drop an unkind word, or careless: in a minute it is gone;
But there's half-a-hundred ripples circling on and on and on.
They keep spreading, spreading, spreading from the center as they go,
And there is no way to stop them, once you've started them to flow.

Drop an unkind word, or careless: in a minute you forget;
But there's little waves a-flowing, and there's ripples circling yet,

And perhaps in some sad heart a mighty wave of tears you've stirred,
And disturbed a life was happy ere you dropped that unkind word.

Drop a word of cheer and kindness: just a flash and it is gone;
But there's half-a-hundred ripples circling on and on and on,
Bearing hope and joy and comfort on each splashing, dashing wave
Till you wouldn't believe the volume of the one kind word you gave.

Drop a word of cheer and kindness: in a minute you forget;
But there's gladness still a-swelling, and there's joy a circling yet,
And you've rolled a wave of comfort whose sweet music can be heard
Over miles and miles of water just by dropping one kind word.

James W. Foley

Implications

The rapidly changing healthcare environment creates challenges for individuals, organizations, and policy makers in negotiating health innovations and their resultant influence on the quality of patient care within organizations. This study presents insights that may be useful to executives and leaders at healthcare organizations and hospitals facing implementation of health innovations; informing policymakers involved in service delivery; and for researchers interested in implementation science.

Leadership implications.

Healthcare organizations are complex and require coordinated efforts across units for successful innovation diffusion. Typically, leadership sets the company's focus and innovation implementation plan. Leaders are seen to embody effective traits and behaviours that help to motivate others and influence innovation adoption and use for the benefit of patient care. When implementation efforts fail, an underlying assumption is attributed to leadership deficits (Turnbull James & Ladkin, 2008). However, there is no one size fits all leadership style for today's complex organization. Importance is placed on leadership abilities to grasp the internal

and external contexts within which the organization operates and to develop strategic actions in such a way that they get people working together in the system to create the change needed. This orientation focuses attention on the roles and settings in which the leaders have authority. It necessitates having a good understanding of the people and their circumstances in those settings and how they can facilitate mutual support for people to thrive, strategies to work, and for practice improvements to sustain. This relational orientation is imbued in person centered care practices and collective leadership approaches.

1. This study builds on evidence of relational leadership as a factor in innovation implementation and suggests there are nuances in the interactions between leaders and workers that merit further exploration.
2. Align person centered philosophy with purpose and process to foster adaptive and generative change that promotes development in people, creates supportive systems for new ways of doing, and fosters continuous learning and professional development across organizational boundaries.
3. Relational leadership fosters and builds capacities among workers, teams, and organizational systems that value caring, collaboration, respect, creativity, adaptability, and flexibility. These capacities are necessary to navigate complex innovations within the organization and also to respond to external pressures.
4. Foster leadership development so that many people across the organisation have core person centered leadership capabilities and are involved in collective leadership activities.
5. Collaborate with post-secondary institutions to foster leadership curriculum and clinical practicums centred on developing person-centred care competencies.

6. Leverage best in class reputation and caring brand to agitate for greater innovation diffusion and system reform.

Practice implications.

This study highlights the multi-dimensional and complex nature of innovation implementation in healthcare practices and the central importance of context. This study explored leaders' perceptions of what they learned from previous experience with innovation implementation and elucidated cultural and organizational characteristics influence the success of planned change.

1. Foster learning across the organization. Continuous learning is essential for embedding evidence into practice and for advancing professional development.
2. CoPs are a strategy to facilitate learning but performance benefits to the organization are not consistent. Barriers to access, sufficient resources, and deliberate commitment of allocated time, hinder sustained learning activities that make a difference in care practices. Without dedicated sustained resources (human and fiscal) actions to embed evidence into practice will likely fail.
3. Champions influence positive change but become ineffective with over use and when aligned with poorly reputed initiatives.
4. Foster socialization that builds networks, sense of community, identity, and trust within the organization. Celebrating successes and failures supports learning, transparency, and encourages creativity and innovation.
5. Prioritize innovations that will have an impact; be deliberate in a planned standardized approach that has a formal action plan, with tangible goals and benchmarks, and fosters

accountability. Staff become overwhelmed when faced with many overlapping initiatives that compete for time and resources, which results in them being unable to fully engage.

6. Recognize and communicate the complex, dynamic, and non-linear nature of implementation and emphasise the importance of supported experiential learning at the level of individual, team, and organisation.
7. Foster an environment that supports ongoing reflection, interpretation, and critical feedback of innovation implementation such that knowledge produced enriches the process and influences innovation diffusion.

Policy Implications.

Organizational policies govern the workplace and direct behaviours. In healthcare these are influenced internally by discipline specific agencies that establish practice standards for practitioners, demands and resources of funding sources, and by the values, beliefs and attributes of those designing policy (Taft & Nanna, 2008). External policy influences often relate to the pressures exerted by government, shifts in economic conditions, changing political philosophies, and public opinion (Government of Alberta, 2018). In many instances, health innovation has languished in the province due to antiquated structures within the health system. For example, costs to update infrastructure to facilitate advances in technology are a barrier in the province, which has faced decreased funding of public services over time (Government of Alberta, 2018). Furthermore, study findings suggest governance structures make autonomy of decision making difficult, influencing how healthcare leaders mediate provincial mandates and translate them into internal plans and policies.

1. This study contributes to evidence of collaborative influences that facilitate and constrain healthcare leaders in their efforts to promote innovation diffusion and suggest further

study of person-centered science and systems research to advance health policy for great reform.

2. This study provides policy makers insight into contextual influences that impact innovation implementation and how they may design policy to best support workers in their adoption efforts.
3. Foster policies that integrate innovation as part of appropriate standards of care and address professional development and resource allocation to support translation of evidence into practice.

Research Implications

By working on problems in the realities in which they exist, practitioners, and researchers are generating and capitalising on knowledge that is relevant and applicable to innovation implementation and evidence-based practice.

1. This study contributes to previous research that used the PARIHS framework. It supports the notion that more explicit expression of individual behaviours, as part of the PARIHS framework, would enhance understanding of the relationship between actors, and the contexts in which they work and how the nuances of these relations impact innovation implementation in practice (Rycroft-Malone et al., 2013).
2. The study findings were unique in increasing our understanding of innovation implementation in acute care hospitals. The tendency for organizations to use a one size fits all implementation plan, regardless of the distinctions of setting, capacities of staff, and limited resources, may serve as a threat to successful innovation implementation.

Recommendations

1. Further study of tangible outcomes that measure changes in practice due to implementation may help predict best implementation strategies and their impact in enhancing care provision and positive work environments.
2. Further exploration of contextual factors in clinical practice settings and relational leadership approaches to tease out nuances of the processes in which leaders manage relations for positive outcomes.
3. Further exploration of leadership development strategies and programmes that align with person centered philosophy and are linked to desired goals of innovation diffusion, quality patient care, and healthy workplaces.

Limitations

This qualitative study explored perceptions of innovation implementation from healthcare leaders in one health authority and I can therefore not make assertions that these findings are representative of healthcare leaders in other jurisdictions or agencies. The sample size and approach may have been susceptible to bias, which I tried to minimize by establishing trustworthiness of emergent themes with participants. I have attempted to provide a rich description of the study so that readers and other researchers may make a judgement about the transferability of findings to other contexts (Guba & Lincoln, 1994).

Conclusions

Health innovations hold the promise of enhancing the delivery of care services. Hospital leaders have placed significant emphasis on implementing innovations, such as those that translate best evidence into practice for better quality of care. Effective innovation implementation is also part of addressing increasing demands and pressures of care while

creating efficiencies that slow escalating costs. While technology and health innovations are slowly becoming part of many care practices, the healthcare sector is traditionally plagued by slow adoption and ineffective implementation. There has been considerable research into studying innovation implementation, which unfortunately has not yielded significant gains in unlocking their full potential for health organizations or for the health of Canadians (Government of Canada, 2018). The PARIHS framework was "one of the first frameworks to make explicit the multi-dimensional and complex nature of implementation as well as to highlight the central importance of context" (Harvey & Kitson, 2016, p.1) and the study of factors that influence successful implementation. It was an appropriate framework for exploring the social relational elements that interact within large health organizations.

As the drive for quality improvement and evidence-based healthcare continues to increase in today's health systems, organizations achieving success in innovation implementation stand to benefit. Health leaders have high expectations with regards to their investments in technology and health innovations: increasing quality, improving the patient experience and decreasing the cost of care. The findings of this study suggest that these expectations can be better realized when, through a supportive work environment, professional development of workers is facilitated, continuous learning strategies match learners needs, and a critical eye is given to measuring the impact of innovation. Health leaders are aware that new ways are not necessarily better nor is innovating just for the sake of innovation. Without widespread use and diffusion that impacts positive patient care, innovation efforts may be in vain. The challenge facing leadership is to create an environment where great minds are provided with the tools, time, and investment to achieve great things for the health of our families and communities. This study builds on research evidence of how important the interactions between persons, working

together within clinical practice settings, are in achieving desired goals of innovation diffusion, quality and safety of patient care, and healthy practice environments.

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Appendices

Appendix A: Information and Consent Form

INFORMATION LETTER and CONSENT FORM

Study Title: Innovation Adoption: Lessons Learned From a "Best Places to Work" Organization

Research Investigator:
NAME: Kari Krell
ADDRESS:
University of Alberta
Edmonton, AB, T6G 2G5

EMAIL: klkrell@ualberta.ca
PHONE NUMBER: 780-633-3925

Supervisor
Professor Supervisor: Dr. Jose da Costa
ADDRESS:
University of Alberta
7-133 Education North
11210-87 Ave
Edmonton, AB, T6G 2G5
EMAIL: jose.da.costa@ualberta.ca
PHONE NUMBER: 780-492-5868

Thank you for considering being a participant in my study focusing on the adoption of innovations in the health sector. Specifically, the purpose of this research is to understand and document the practices and process of a healthcare organization in its adoption and integration of emerging innovations in clinical practice. A greater understanding of the practices and processes involved in the successful uptake of innovations in clinical practice may contribute to the development of professional development opportunities for healthcare workers and extend clinical application of other emergent innovations for enhanced healthcare efficiencies and outcomes. The people who will take part in this interview have been chosen because they have participated in the implementation or use of emerging innovations in clinical practice. This letter (which also serves as a consent form), should give you a good sense of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, please feel free to ask. Please take the time to read this carefully and to understand any accompanying information. Thank you for considering taking part in this research.

1. Approval for this research has been granted by the Research Ethics Board of the University of Alberta.
2. The researcher is a doctoral student and this study serves as partial fulfillment of the requirements for the degree of Doctor of Philosophy.
3. A semi-structured interview will be used in this research. The interview will take place during the workday and will take about 30-60 minutes of your time. All information will be audiotaped and/or recorded on paper and may be used in the final research paper.
4. There should be minimal risks to you through taking part in this research study. Participants are provided opportunity to withdraw from the study. Data will be withdrawn following participant withdrawal, up to two weeks after transcription of the interview and interviewee review of transcript.

5. Your name will not be used within the research results or in any way in which the research results are shared. You will be identified by a number only. Your name will be used by the researchers only as it is necessary to identify you in the interview.
6. The information you provide will be kept in a secure area (ie: locked filing cabinet) for a period of five years. Electronic data will be password protected. After five years, all data will be destroyed. Paper data will be shredded and electronic data will be deleted from the main folder and the trash folder on the computer operating system they have been stored on.
7. You may review the notes from your interview to ensure accuracy. A transcript of the interview will be emailed to you. At that point, you may ask for alterations or removal of some or all of the data simply by contacting me via email. You may have a copy of the final research paper if you wish.
8. The information gathered for this study will be used for scholarly purposes (i.e. dissertation, research articles, presentations, and teaching).
9. All information will be private, except when professional codes of ethics or the law requires reporting.
10. There will be no costs to you for taking part in the research. You will not be paid for taking part in the research.
11. The information gathered for this study may be looked at again in the future, up to a five-year period, to help us to answer other study questions. If so, the ethics board will first review the study to make sure the information is used properly.

When you sign this form, it means that you understand why this study is being done and you agree to take part. This does not mean that you are giving up your legal rights. The researcher must act in a responsible and professional manner. It is your choice to take part in this study and you are under no obligation to do so. Participants are provided opportunity to withdraw from the study. Data will be withdrawn following participant withdrawal up to two weeks post interview transcription and review. Results write-up will not contain any participant comments that connects to the individual who made them. There is no penalty of any kind if you choose to withdraw. You are free to ask any questions that you have about the study. If you wish to discuss any part of the study further please contact the researcher: Kari Krell (780) 633-3925, klkrell@ualberta.ca. If you have any concerns about any aspects of this study you may contact the Ethics Review Board of the University of Alberta at (780) 492-2615.

I have read this form and the research study has been explained to me. I have been given the opportunity to ask questions and my questions have been answered. If I have additional questions, I have been told whom to contact. I agree to participate in the research study described above and will receive a copy of this consent form. I will receive a copy of this consent form after I sign it.

_____ _____

Participant's Name (printed) and Signature Date

_____ _____

Name (printed) and Signature of Person Obtaining Consent Date

The plan for this study has been reviewed for its adherence to ethical guidelines by a Research Ethics Board at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-2615.

Appendix B: Ethics Approval

Notification of Approval

Date:	June 6, 2018
Study ID:	Pro00080750
Principal Investigator:	Kari Krell
Study Supervisor:	Jose da Costa
Study Title:	Innovation Adoption: Lessons Learned From a "Best Place to Work" Organization
Approval Expiry Date:	Wednesday, June 5, 2019

Approved Consent Form:	Approval Date	Approved Document
	8/31/2017	Information Letter and Consent Form

Thank you for submitting the above study to the Research Ethics Board 1. Your application has been reviewed and approved on behalf of the committee.

A renewal report must be submitted next year prior to the expiry of this approval if your study still requires ethics approval. If you do not renew on or before the renewal expiry date, you will have to re-submit an ethics application.

Approval by the Research Ethics Board does not encompass authorization to access the staff, students, facilities or resources of local institutions for the purposes of the research.

Sincerely,

Trish Reay, PhD
Associate Chair, Research Ethics Board 1

Note: This correspondence includes an electronic signature (validation and approval via an online system).

Appendix C: Email Introduction Script to Covenant Health Media Relations

Hello,

I am a PhD student at the University of Alberta, currently exploring sociocultural influences on an organization and how this impacts the practices and processes of an organization that adopts and integrates innovation in clinical practice. I recently completed a pilot study with Covenant Health's Medication Management leaders prior to expanding the study to hospital leaders. I am very interested in interviewing senior leaders to gain better insight into how Covenant Health has created their culture of innovation adoption and integration.
I look forward to further discussion on my study.
Best regards,
Kari Krell
[Contact Information to be provided]

Appendix D: Email of Initial Contact with Participants

Date
Name Address

Dear:

As a member of Alberta Health Services and or Covenant Health you can participate in a research study. You have been contacted by Covenant Health Media Relations to take part in the study - a short interview about the adoption, integration, and use of emerging innovations in clinical practice.
This research study is being conducted by Kari Krell, a PhD student with the department of Educational Studies at the University of Alberta, under the supervision of Dr. Jose da Costa. Following, the initial contact made by Covenant Health Media Relations, and within two weeks of receipt of this letter, you will be contacted by myself, by email, to invite you to participate in an interview and establish a date and time that should take about 60 minutes of your day. If you decide to participate in the research study you will be contributing to healthcare research. Your participation in this study will increase our understanding of the practices and processes that support the adoption of innovation in clinical practice. The information gained will be used for scholarly purposes (i.e. dissertation, presentations, articles, teaching).
I am very enthusiastic about this study and I encourage you to take part. However, please note that your participation in the study is voluntary. You may refuse to continue with any aspects of the study at any time. I hope you will choose to take part in this important project.

Sincerely,
Kari Krell
Email: klkrell@ualberta.ca
Phone: 780-633-3925

Appendix E: Proposed Interview Guide

The following interview guide was used for the semi-structured interviews.

1. How would you describe the culture at CH?
2. How do you coach, nurture, and champion leadership talent in your organization?
3. If I was a new hire, how would I get to understand the culture at CH?
4. What would employees say that makes CH a best place to work organization?
5. How do you define innovation?
6. What have you learned from innovation implementation in clinical practice?
7. How do you evaluate or measure innovation outcomes?
8. What makes a leader exemplary in healthcare today?
9. What are the most pressing issues today that healthcare leaders are facing? And why?
10. How do you measure or evaluate your culture?
11. How does CH help influence change within the organization and for workers?
12. Technology and innovation are seen as ways to help us sustain and also improve our health system. What are your perceptions of how innovation is adopted at CH?
13. The Internet of things is being widely used in healthcare today. How does CH view the opportunities/challenges that come with the current trend of connected digital healthcare?
14. In this ever-changing environment, knowledge more quickly becomes obsolete and practitioners require continuous professional development to maintain competency. How is this nurtured in the organization?
15. What are strategies to keep employees keen and motivated to learn?
16. How do you make space and/or time for knowledge sharing?
17. Are CoPs, still relevant today for knowledge sharing and professional competence building?
18. How do you support, or do you, practitioners who are used to having instant access to information and being connected, who want mobile devices or other tools to move around

with them for access and agility as part of their role in the patient's journey within the continuum of care?

19. What are your perceptions of a leader's role and responsibilities in innovation diffusion across the organization?

20. There has been a lot of research about the five different generations in the workplace. Those who entered the workforce since 2010, have sophisticated and powerful skills from being immersed in technology, media, and gaming and are used to working with technology. Are there challenges working with the various generation groups in practice settings?