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The Clinic Narrative: A Multiple Case Study of Integrated Knowledge Translation and Equity-Oriented Primary Health Care

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A thesis submitted in partial fulfillment of the requirements for the degree in Master of Health Information Science
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THE CLINIC NARRATIVE: A MULTIPLE CASE STUDY OF INTEGRATED
KNOWLEDGE TRANSLATION AND EQUITY-ORIENTED PRIMARY HEALTH
CARE

(Thesis format: Monograph)

by

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Master of Health Information Science

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Abstract

Understanding how PHC organizations implement changes to achieve equity-oriented care will add to the knowledge base regarding primary care renewal. Implementation science or knowledge translation (KT) has emerged, with the goal of enhancing evidence-based practice by implementing strategies of knowledge mobilization. Questions in this qualitative multiple case study were: 1) How does a new knowledge product, a 'clinic narrative', co-created by the researchers and the clinic leads, influence practices in the clinic specific to equity-oriented care?, 2) What facilitates or constrains the use of the narrative? and, 3) What are the novel uses of the narrative for organizational goals? The Consolidated Framework for Implementation Research and Integrated Knowledge Translation were used to guide data collection and analysis. Results indicate that the clinics perceived the intervention positively with multiple uses. The results of this study will help researchers and other decision makers understand how an evidence-based knowledge synthesis tool can assist PHC organizations in improving equity-oriented care.

Keywords: Integrated knowledge translation, primary health care, health equity, organizational change, multiple case study

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Chapter 1

1   Introduction

1.1   Statement of Problem

A decades old discourse has been evolving around the definitions and concepts of inequities related to health. Health inequities are the avoidable differences in health between groups who have varied levels of wealth, power and education, or differ in factors such as gender or ethnicity (Baum, Begin, Houweling & Taylor 2009; Rasanathan et al., 2011). Health inequities are made visible through indicators such as life expectancy, infant mortality and disease incidence and mortality (Raphael, 2010). Health inequities reflect a society's commitment to principles of fairness and social justice (Whitehead, 1992; Starfield, 2005; Braveman & Gruskin, 2002). However, globally and in Canada, the gap in all forms of equity between social groups continues to widen (Frolich, Ross & Richmond, 2006; Rasanathan et al. 2011). The path in Canada toward improving policy around health inequities can be traced to a foundational report released in 1974 on health promotion titled "A New Perspective on the Health of Canadians" by the Canadian Health Minister Marc Lalonde (Government of Canada, 1974). The Lalonde Report (1974) identified three main thrusts to improve the health of Canadians: 1) improving the environment, defined as anything outside of one's self, 2) controlling lifestyle so as to mitigate health risks, and 3) increasing knowledge about human biology. The report was the first to put forth publically the notion that the health care system was not the most important factor in determining an individual's health status (Hancock, 1986). The report was recognized as a 'landmark' document, influencing other countries' governments, such as the United States, the United Kingdom and Sweden, to write similar reports, yet it had very little direct impact, if any, on Canadian public health policy. The report was criticized for claiming that individuals could improve their health outcomes by simply moderating their lifestyle (Hancock, 1986). However, the report was released at a time which coincided with a period of transformation in the way others began to perceive and articulate social and environmental impacts on the health of Canadians and to understand the importance of analyzing the social root causes of health differences, beyond simply biomedical factors (Hancock, 1986).

In the decades since the release of Lalonde Report, the social determinants of health (SDH) have been defined by the World Health Organization Commission on Social Determinants of Health (2008) as "the structural determinants and conditions of daily life responsible for a major part of health inequities between and within countries". The SDH include a range of political, social, economic, environmental and cultural circumstances and factors such as disability, income and income distribution, access to health services, Aboriginal status, and gender, (Rasanathan et al., 2011) and includes the overlapping and intersecting nature of these factors for the health and well-being of individuals (McPherson & McGibbon, 2014). The "inverse care law" (Hart, 1971) describes the phenomena whereby those within a country who have the worst health status receive less care, have less access to health services and experience worse health outcomes (Baum et al. 2009). This helps partially explain why some individuals and populations are healthier than others. In spite of the work Canada has done to understand, clarify and conceptualize health inequities for marginalized[1] populations and the problems associated with them, in close to four decades, policy has not been effectively enacted to remedy this gap. Child and family poverty, discrimination against women and Aboriginal groups, and homelessness and housing insecurity remain dire, often overlapping, social problems causing health inequities (Bryant, Raphael, Schrecker, & Labonte, 201; Rapheal, Curry-Stevens & Bryant, 2008; PHAC, 2013).

Health care systems obviously play a key role in ensuring equitable health outcomes (WHO, 2008) and within broad health care systems, primary healthcare (PHC) is often positioned as the key to initial service access for people, especially those living in marginalizing conditions (Browne at al., 2012). In 1978 at the WHO international conference on PHC, the Declaration of Alma Ata was signed. The declaration claimed a goal of "Health for All" by the year 2000 with PHC as an integral part of the health system (WHO, 2014). Due in part to a lack of economic investment in the 1990s by the Canadian government, improvements in the efficacy of PHC stalled, causing an entrenchment of problems, particularly for vulnerable populations; this prompted a long

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[1] Marginalized refers to "the conditions and processes by which particular populations are affected by structural inequities and structural violence in ways that result in a disproportionate burden of ill health and social suffering" (Browne et al., 2012, p 2).

period of health care reform and renewal that is still underway (Hutchinson, Levesque, Strumpf, & Coyle, 2011; Hutchinson & Glazier, 2013). Consequently, Canada's PHC system lags behind those of other countries both in terms of overall capacity and effectiveness, but also in terms of addressing health inequities (Canadian Institutes of Health Research, 2010).

The scope of PHC includes not only the first point of contact in the health care system for injury and illness prevention, mental and physical care, basic emergency services, rehabilitation and referrals to others levels of care (Health Canada, 2012; Starfield, Shi & Macinko, 2005), but also "comprehensive, integrated and people-centered care" within and beyond the health care system (Rasanathan et al. 2011, p. 657). Baum at al. (2009) emphasize that there is a relationship between health equity, SDH and PHC that is important to explore and clarify. Although conceptually, the notion of health outcomes being in part socially determined and the values of primary health care seem to align with notions of health equity, they are separate, but related, things. Access to healthcare itself is a SDH and as noted above, a lack of access to health systems amplifies health inequities (i.e. the inverse care law). Following this, researchers emphasize the notion that countries with strong PHC services can contribute to health equity as an outcome by addressing social inequities (Simou, Pliatsika, Koutsogeorgou & Roumeliotou, 2013); thus, the efficacy of PHC services is an indicator of overall health system performance (Baum et al. 2009; Kringos, Boerma, Hutchinson, van der Zee, & Groenewegen, 2010).

In attempts to improve performance of the PHC system specific to equity-oriented care and relevant outcomes, national and provincial policy initiatives in Canada have been implemented and will be reviewed briefly. In Ontario, over the last decade, PHC reform has focused on three systemic changes in attempts to remedy problems around efficiency: 1) amending physician payment systems, 2) increasing patient enrollment with a primary care provider, and, 3) increasing the use of interdisciplinary teams (Glazier, Zagorski & Rayner, 2012; Hutchinson & Glazier, 2013). Multiple models of PHC have been introduced. Two renewal models of interest in this case study are Nurse Practitioner-Led Clinics (NPLCs) and Community Health Centres (CHCs). NPLCs offer comprehensive health care, illness prevention and health promotion services. In this model, Nurse

Practitioners (NP[2]) collaborate with a team of health care providers including registered nurses, registered practical nurses, collaborating family physicians, registered dietitians, pharmacists and social workers. A client or patient does not need a referral to access a NPLC. NPLCs are a relatively new model, with the first eight clinics funded in 2009. Currently, NPLCs serve 27 Ontario communities (MOHLTC, 2013).

In Ontario, the CHC model began as a pilot in the 1970s under Premier Bill Davis' Progressive Conservative government (AOHC, nd). CHCs were built on the foundational values of medicare: respect, inclusion, accountability and equity (AOHC, nd). The initial objectives were to create publically funded, not-for-profit centres without duplicating services already in existence. More specifically, the centres provide primary care, as well as illness prevention and health promotion services, particularly to communities that typically have trouble accessing health services and are vulnerable to poor health (MOHLTC, 2013).

The science of implementing new knowledge, including the production, transfer and exchange of knowledge for action, is called knowledge translation (KT) and has become one of the keys to understanding health systems improvement. Improving health care systems depends on creating knowledge and moving it into action in multiple ways (Graham et al., 2006; Kitson, 2009; van Kammen, de Savigny, & Sewankambo, 2006). The field of KT and implementation science addresses the "know-do gap", where system change and healthcare transformation depend not only on research evidence but also context, and embraces the impact of organizational theory and organizational factors (Harlos, Tetroe, Graham, Bird, & Robinson, (2012). Information science offers contributions to the narrowing of the know-do gap (Booth, 2011). A more thorough review is presented in the Literature Review chapter.

1.2 Purpose

This qualitative multiple case study aims to add to the evidence base around PHC improvement through the exploration of a co-constructed knowledge intervention, a clinic

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[2] A nurse practitioner (NP) is a registered nurse with advanced university education who provides health to individuals, families and communities in hospitals and community-based clinics. NPs work in partnership with physicians, nurses and other health care professionals such as social workers, midwives, mental health professionals and pharmacists (NPAO, 2011).

narrative, to inform local changes needed to help shift a clinic's practice toward more equity-oriented care. This study is nested within a larger Canadian Institutes of Health Research (CIHR)-funded study called EQUIP Healthcare (http://equiphealthcare.ca). The EQUIP research study seeks to develop new knowledge regarding how PHC can better address health equity, especially among those living in marginalizing conditions. EQUIP aims to: 1) identify and operationalize equity-sensitive PHC indicators for marginalized populations, 2) evaluate the effectiveness of an intervention to improve equity-oriented PHC for marginalized populations at four diverse clinical sites, and, 3) analyze the policy and funding contexts of these clinics related to gaps and opportunities to promote equity-oriented PHC. In the current study, the clinic narratives being developed for two of EQUIP's participating clinical sites are analyzed and their initial impact assessed. The narrative can be compared to what Rasanathan et al. (2011) call a "SDH analysis", in that the clinic team gets a historical and contemporary sense of their clinic and its clients, and the place of their clinic within the broader community. The narratives include: 1) a description of the organization itself including key clinic characteristics, its mission, staffing and practice models. The purpose of this information is to convey to users (i.e., clinic staff) aspects of the organizational context that may influence whether and how they use knowledge (including data as well as historical and social "facts") to inform their equity-oriented change process; 2) wider community characteristics including demographic and SDH-related statistics, as well as other social, historic, and economic factors relevant to the community; and, 3) key indicators of historical, cultural and social inequities within their own patient population. This includes, where possible, a comparison of the clinic population to the local, regional and provincial populations on key health indicators. The inclusion of clinic and community-level data is hypothesized to assist clinic staff in situating the clients' needs, and targeting the EQUIP intervention to more readily meet them.

Case study methodology was employed to explore how clinics co-develop, take up or use the clinic narrative and any impacts of the clinic narratives in a specific time frame i.e., as the narratives were finalized with the clinics and used to plan and implement EQUIP's organizational integration and tailoring phase. This period immediately followed

completion of facilitated educational modules that underpin the model of equity-oriented PHC (see Appendix A).

1.3   Research Questions

A multiple case study methodology was used to answer three research questions:

1. How does the clinic narrative, both the document and the co-creation process, implicitly and explicitly change practices in the clinic related to equity-oriented care?
2. What facilitates or constrains the use of the narrative?
3. What are the potential uses of the clinic narrative in the future?

Researchers, PHC administrators and practitioners and other decision makers will be interested in the results of this study for understanding how this kind of tailored knowledge process and product can assist PHC organizations in potentially improving equity-oriented care.

1.4   Significance of Study

This case study is important for several reasons. First, health policy ought to be considered through an equity-oriented lens in Canada to improve health outcomes, particularly for marginalized populations (Raphael, 2006). This aligns with principles of social justice (Starfield, 2004; Starfield, Shi & Macinko, 2005) and indirectly increases macro socio-economic benefits such as employment, productivity and growth (Dahrouge et al. 2012). Equitable PHC as part of health systems improvement is on the national and global agenda, with a push toward identifying key dimensions and indicators (Kringos et al. 2010; Browne et al, 2012; Health Canada, 2012). Second, understanding the unique ways in which PHC organizations implement changes to improve care will add to the knowledge base around primary care renewal. Third, little is known about how PHC clinics work to improve their equity-related practices and how knowledge of their specific contextual factors can shape care processes and, ultimately, outcomes. This study examined a novel way to synthesize relevant knowledge regarding key dimensions of local context and bring it directly into an intervention implementation process. It was of

interest to explore whether the clinic narrative gave the PHC clinic voice or agency (e.g. with partners or funders), and document its intended and unanticipated consequences. Finally, the study aimed to explore the co-constructive process of developing and initially using the clinic narratives in order to share what was learned with interested others.

1.5   Epistemological Orientation

The starting point in locating the paradigmatic position of this research was a commitment to the congruence between the qualitative methodology (the data collection, sample selection and analysis) and the research questions (Holloway & Todres, 2003). An in-depth philosophical untangling of paradigm positions was outside the bounds of this thesis. However, it was important to contemplate my definition and understanding of truth and its relevance to this study. The social construction of reality where shared meanings create truths around the phenomena of interest is a subjectivist, relativist co-construction (Guba & Lincoln, 1994). This view favours researcher transparency and reflexivity which demonstrates awareness and acceptance that the researcher interprets and influences the data throughout information gathering and analysis processes which, in turn, influences the results (Appleton & King, 2002; Finlay 2002). This orientation shows sincerity and authenticity (Mantzoukas, 2004) and fits well with this study's research questions and methodology (Yin, 2014). I also acknowledge a critical lens to view the data and results of this study. This fits with the health equity and social justice orientation of the larger EQUIP study, which sought to critically understand and transform PHC to reduce health inequities.

1.6   Theoretical Framework

The main objective of this research was to understand individuals' perceptions of the implementation of a novel knowledge intervention specific to equity-oriented practice change. Understanding their perceptions was and is crucial to understanding implementation effectiveness. Questions arising from key literature and research on these relevant topics (see Chapter 2) led to the formation of a theoretical proposition (Yin, 2014). The proposition put forth was that there may be a benefit to or influence on the organization (and ultimately to patients' health outcomes) if organizations/clinics have a clinic narrative, which can better situate client needs and tailor practice to meet those

needs. Additionally, there are implementation factors that affect how clinics use the intervention and these factors can be prioritized in terms of impact on implementation (Damschroder at al., 2009).

The Consolidated Framework for Implementation Research (CFIR) shows promise as a way for health service researchers to apply the many overlapping constructs of published implementation theories in multiple contexts (Damschroder et al., 2009). There are five domains that address issues related to the organization, the intervention and its implementation. In the present case study, the CFIR acts as a heuristic device to assist the researcher in identifying a wide range of factors, operating at different levels that shape KT. This descriptive and adaptable framework provides a pragmatic way to understand and contain relevant domains and constructs. As well the CFIR enables the framing of findings in a way that promotes comparison with findings from other studies (Powell et al., 2013).

1.7   Operational and Conceptual Definitions

Each of two clinics in this study has multiple practice sites. As such, use of the term 'clinic' refers to the organization, and the context of that organization, and not a particular physical site or place. 'The intervention' includes the process of co-developing the clinic narrative and the tangible product, the clinic narrative document. 'Implementation', within the bounds of this study, means that the intervention under study influenced action within the clinics to support equity-oriented PHC – specifically tailoring and uptake of the EQUIP intervention, as well as other unanticipated uses. As part of this process, implementation included the analysis of surrounding, interacting factors. This is slightly different than Damschroder et al.'s definition of implementation in the CFIR, i.e., "[t]he critical gateway between an organizational decision to adopt an intervention and the routine use of that intervention" (2009; p. 3). Evaluation of the value of routine use or implementation of the overall EQUIP study intervention is not included in this study.

Chapter 2

2   Literature Review

This study is situated in the broadly defined domain of health information science, with a specific focus on developing knowledge synthesis and integration processes and tools to facilitate practice – an aspect of both the KT and implementation science literatures. The following literature review will explore relevant concepts around knowledge and how it informs health practices.

2.1   Knowledge

Nonaka (1994, p. 15) describes knowledge as a "justified true belief", and also as a "dynamic human process of justifying beliefs as part of an aspiration for the truth". Davenport and Prusak (2000, p. 4) describe knowledge as,

> …a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms.

Knowledge is a broad category comprising subsets such as research evidence, "information" (or "data"), and includes processes (i.e., of informing) (Davenport, & Prusak, 2000). Knowledge is complex and varied, and depends in large part on one's discipline and philosophical perspective (Contandriopoulos, Lemire, Denis, & Tremblay, 2010; Wathen, MacGregor, Sibbald, & MacMillan, 2013).   Multiple, complex and diverse ways of knowing are derived from scientific evidence to intuitive judgment (Benner & Tanner, 1987), analytic thinking, diagnostic reasoning, narrative thinking (Tanner, 2006) and personal knowing (Jenks, 1993). Carper (1978) states, in relation to nursing practice, patterns of knowing can include: 1) empirics, the science of nursing, 2) esthetics, the art of nursing, 3) personal knowledge, and 4) ethics or moral knowledge. With regard to empirical evidence, Flaming (2001) suggests there are dangers to considering it as superior and using it universally in practice without thinking critically. Flaming goes on

to argue that the term 'phronesis' (a philosophical term meaning reflective, moral action) may be a more suitable term than research-based practice.

Greenhalgh and Wieringa (2011) explain that in the medical field, epistemologically, knowledge has primarily been understood from an objectivist perspective, meaning that knowledge is separate from its producers and from the practitioners who take it up. The authors argue that conceiving of knowledge as something reproducible and translatable is not representative of the way in which other disciplines and perspectives conceptualize knowledge, and undermines other ways of producing and processing it. Understanding knowledge is variable since different individuals or groups situate knowledge-in-context differently, give it meaning differently and connect it to other knowledge or knowledge gaps differently.

2.2   Context as Knowledge

Context (related to health care) can be understood as knowledge in two ways: 1) local knowledge about the "the setting in which practice takes place", beyond physical location to include community systems and structures that influence patients' health and well-being (McCormack et al. 2002, p. 94), and, 2) knowledge about the actual clinic or organizational context where people receive health care. Shaping health care services to ensure an appropriate fit between the patient population and the health care service (a social determinant of health) refers to the construct of context.

From the health geography discipline, Poland, Lehoux, Holmes and Andrews argue that "one-size-fits-all" practice does not consider the importance of 'place' in public health and health promotion, where place is defined as the 'container' for health care activities including the broader surrounding systems, and "a lens through which to view practice" (2005, p. 171). They argue that ignoring place or context could have significant negative impacts on policy and practice and note that a place-sensitive approach to improving health is absent in much of the knowledge translation research. Dooris (2005) proposes that the 'settings approach', built on an ecological model and complex systems theory, provides a comprehensive framework for understanding the role of context and multi-stakeholder ownership of health needed to impact evidence-based organizational change in the health promotion field.

Understanding and considering contextual factors as a form of knowledge – as well as the settings in which knowledge will be taken up and implemented - can influence others to act on or implement new knowledge. Toward the goal of improving health services, Contandriopoulos, Lemire, Denis and Tremblay (2010; p. 468) recommend starting with a "detailed analysis of the context". Examining organizational context will lead to understanding two closely related and crucial concepts: 1) culture, and, 2) climate. There is a large body of literature aimed at defining and distinguishing these terms. Related to this case study, it is helpful to understand organizational culture as part of an analysis of context. Davies, Nutley and Mannion (2000) contend that an organization has a culture; more specifically, culture is an organizational characteristic. Sleutel (2000) states that culture acts as the "normative glue", i.e., a vehicle for organizational norms and values.

Gershon, Stone, Bakken and Larson (2004) assert that since organizational culture can be experienced, assessed and changed (due its malleability), it can be impacted by the organizational, and local/setting context. This ability to change refers to the climate of the organization. In considering organizational structures, Fitzgerald et al. (2003) argue that the organizational context impacts the speed and variability of diffusion of new knowledge. PHC clinics are complex entities that often operate non-hierarchically, or at least with varying types of hierarchies, depending on service provision goals. Furthermore, due to these organizational factors such as complexity and structure, implementation of interventions is not necessarily an identical process across organization sites (Harlos, Tetroe, Graham, Bird, & Robinson, 2012).

Fitzgerald et al. (2003, pp. 223) state that PHC organizations can be considered "loose networks". As such, they are structured differently than standard organizational hierarchies; they are more partnership-based (although status/power differences do still exist between partners). This brings about unique issues related to organization of roles, interprofessional collaboration and organizational governance, all impacting how new knowledge is implemented and thus how organizational change happens (or not) (Zwarenstein, Goldman, & Reeves, 2009).

Subsequently, an understanding of the 'organization-in-context' must accompany administrative and organizational decision-making and highlights the challenges of using

research evidence without considering local, contextualized knowledge, or mechanisms for contextualizing existing knowledge/evidence (Harlos, Tetroe, Graham, Bird, & Robinson, 2012). The current study emphasizes the importance of understanding specific factors that influence organizational decision-making and change in PHC contexts. This type of understanding is needed if new knowledge is to be integrated into practice.

2.3   Tailoring Health Care Practices

Considering both the local community and organizational context is essential to tailor health care interventions, programs, and systems in meaningful ways. Brehaut and Eva (2012) argue that understanding the effective implementation of research evidence into practice or policy requires a deeper look into relevant social and health psychology theories underlying the implementation processes and techniques to identify the causal mechanisms. The authors argue that the Theory of Planned Behaviour has been widely used by KT researchers because of its broad applicability, but does not generate concise recommendations for KT improvement. The authors identify a gap in empirical evidence, and propose that, rather than modifying existing implementation theories to fit specific localized contexts and/or trying to apply one theory in its entirety, using a 'menu of constructs' approach may be preferable, to allow context-relevant concepts derived from different theories to be implemented.

One study examined knowledge flow in the context of PHC teams and discovered that new knowledge comes into PHC clinics and is taken up in diverse ways (Sibbald, Wathen, Kothari & Day, 2013). While the informal and unstructured methods of sharing information (such as mentoring within a team) seemed, in the view of the PHC team members, to best promote knowledge uptake, team members on the whole seemed confused about how and when to share new information. Specific to PHC teams, the researchers made the following recommendations to improve knowledge flow: consider the use of interdisciplinary team members, especially those with cross team responsibilities; consider the use of technology and/or information specialists to facilitate knowledge retrieval and uptake; and, at an organizational level, integrate improved structuring, clarity and delivery of knowledge sharing activities. These recommendations

are worth considering related to the implementation of new knowledge in the clinics under the current study.

The concepts reviewed thus far are important for this study because they situate research evidence within the paradigm of evidence-based practice while exploring the definition and role of knowledge and information. Defining evidence as simply 'research evidence', as in methodologically driven evidence hierarchies, where other forms of knowledge and information are not considered, means that context is essentially excluded from "evidence-based" clinical decision-making. This study will use the term knowledge to encompass empirical information as well as contextual information; however, it will not disregard the important role of research evidence in decision-making for organizational change.

2.4   Measuring Equity in Primary Health Care

Recent literature has focused on one form of knowledge, around the measurement of primary health care through use of 'indicators'. Indicators are quantitative measures that flag health care processes and outcomes in an effort to monitor, evaluate and improve health care services and organizational functioning (Mainz, 2003). In Canada, due the provincial and territorial administration and delivery of health care, there has been a lack of comparable system-wide data about PHC processes and outcomes (Walker, Sullivan-Taylor, Webster, & MacPhail, 2009). To respond to this, the Canadian Institute for Health Information (CIHI), an independent non-profit corporation, began to collect and analyze national information on health and health care. In 2006, CIHI developed a list of 105 PHC indicators for use at multiple levels: for patients, populations, providers and organizations (CIHI, 2012). In 2011, the PHC indicators were updated around two priority subsets, policy-makers and health care providers. The update reflects these key domains of PHC: acceptability, accessibility, appropriateness, comprehensiveness, coordination, effectiveness, efficiency, expenditure, governance, health status, information technology infrastructure, safety and workforce.

In a key study, Wong et al. (2011) highlight gaps around Canada's model for monitoring PHC indicators, specifically related to equity-oriented care. In addition to describing health system performance, equity-oriented indicators could describe population characteristics, community contexts and health status. Wong et al. (2011) suggest that,

based on the complexity of marginalized patients' needs and the subsequent challenge of capturing the details of the care provided, more relevant monitoring and performance indicators are needed to articulate the multifaceted care provided in equity-oriented PHC services. Wong et al.'s work is echoed by researchers who have identified core dimensions of equitable health care which include: having access to health services (a social determinant of health), patients' ease of access to a health clinic, the appropriate fit between patient need and services offered and the continuous and coordinated delivery of care (Kringos et al., 2010; Starfield, 2007).

Likewise, pointing to specific means to improve equity-oriented PHC for marginalized populations, Browne et al. (2012), in a paper underpinning the development of the EQUIP intervention, identify four key dimensions of care: 1) inequity-responsive care; 2) trauma- and violence-informed care; 3) contextually tailored care; and, 4) culturally competent care. These dimensions are operationalized through 10 strategies. Browne et al.'s work provides an important contribution, suggesting that by implementing the strategies under these dimensions, PHC organizations with an explicit equity-oriented mandate can intentionally impact health outcomes and quality of life. Browne et al. argue that if PHC is responsive, accessible and of high quality, with complementary structural and policy changes in place, inequities can be reduced. Browne et al.'s (2012) four dimensions of equity-oriented PHC are of particular relevance to this study as the EQUIP research program in which the present study is situated evaluates an intervention that implements all four of these dimensions. The co-constructed clinic narrative is designed to assist in the tailoring and implementation of the intervention, and, as such, becomes an intervention component that also requires examination.

2.5   Informing Health Practices: Data, Evidence and Knowledge

Indicators are based on research evidence as a form of knowledge, to make improvements, to improve health systems and health outcomes. The following is a brief review of an ongoing debate around a key assumption: that scientific research should be the most valued type of evidence in healthcare practice (Fitzgerald, Ferlie & Hawkins, 2002; Pope, 2003), important when considering the type of evidence that should inform indicator development. Evidence at the top of most empirical hierarchies includes evidence from

randomized controlled trials (RCT) (or syntheses of RCTs) and proceeds through cohort studies and case control studies, and may include qualitative research and case reports (often below a "cutoff" line), with, at the bottom, expert opinion (Lambert, Gordon, Bogdan-Lovis, 2006; Titler, 2008). As such, evidence-based health care has become increasingly significant in the discourse around quality control and improvement in health care. From the biomedical perspective, evidence-based practice was initially defined by Sackett et al. (1996, pp.71) as "the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients". From a social science perspective, Mykhalovskiy and Weir offer a critical analysis of commonly held views of evidence-based medicine (EBM). Authors state EBM is "the most important contemporary initiative committed to reshaping biomedical reason and practice" (2004, pp. 1059). From the literature, the authors put forth the argument that EBM is based on 'political economy ideology', where political economy is defined briefly as the science of wealth, and a belief that "EBM is positioned as a kind of ideological tool used by established corporate actors in pursuit of their interests" (Mykhalovskiy & Weir, 2004, p. 1061). The authors also surface the notion from the literature that EBM is a way to rationalize and justify health services, impose medical domination, reduce clinical autonomy and subvert the patient-doctor relationship. This is echoed by Parse (2001) in the assertion that strictly positivist and post-positivist stances devalue professional judgment. Some suggest that EBM is controlling, negating pluralism (i.e. marginalizing other forms of knowledge) and call it "dangerously normative" (Holmes, Murray, Perron, & Rail 2006, p. 181).

Other disciplines, such as nursing, have taken up the notion of evidence-based practice (initially referred to as 'research utilization') in different ways and emphasizing different practice-specific concerns (Estabrooks, 2004; Walsh, 2010; DiCenso, Cullum, & Ciliska, 1998). Researchers and experts from across health disciplines grapple to understand the value and limits of determining best evidence about interventions (Henegen & Godlee, 2013; Lambert, Gordon, Bogdan-Lovis, 2006; Mykhalovskiy & Weir, 2004; Williams & Garner, 2002). Nonetheless, the implementation of research-derived evidence into health care practices and policymaking, as previously defined, has been slow and unsystematic (Graham et al., 2006) with highly variable effectiveness (Brehaut & Eva, 2012).

2.6   Knowledge Translation

The implementation of new knowledge as a science, including the production, transfer and exchange of knowledge for action, has become one of the keys to understanding health systems improvement. Knowledge translation (KT) is the term commonly used by the Canadian Institutes for Health Research (CIHR) to describe the ideal process of appraising, sharing and implementing knowledge. CIHR states KT is "the exchange, synthesis and ethically sound application of knowledge, within a complex system of interaction among researchers and users" (2013). Despite the frequent use of the term KT, overlapping terms, models and frameworks have evolved causing confusion around concepts and inconsistencies across and within disciplines. These issues may have contributed to delays in research, patient care and policy development (Graham et al. 2006; Greenhalgh & Wieringa, 2011; Rycroft-Malone, 2007). Greenhalgh and Wieringa (2011) suggest evolving the term and understanding of KT, to incorporate tacit and experiential knowledge, knowledge gleaned from inter-professional relationships and knowledge developed in-context will reflect a shift in the way that knowledge is produced.

As a result of some of these challenges, more engaging and inclusive methods of research are evolving (Bowen & Graham, 2013). Integrated knowledge translation (iKT) is "the active collaboration between researchers and the ultimate users of knowledge throughout a research process" and one that is recognized as potentially mutually beneficial (Kothari & Wathen, 2013, p. 187). In an iKT approach, knowledge users (usually practitioners and /or policy actors, but also potentially advocates and members of the public) are integrated as early as possible into the research process, and become partners in the knowledge generation process, a conceptualization that is similar to Participatory Action Research approaches. Kothari and Wathen (2013) highlight two benefits of iKT: 1) the creation of more relevant research questions with the knowledge users, and, 2) the experience of mutual learning, professional "transformation" and "joint-sense-making" between the researchers and knowledge user partners (p. 189). Through this process, tacit knowledge is articulated and available to be used for future joint projects. This type of relationship has the potential to produce research questions that are more relevant to user context and, therefore, findings that are more adaptable and can be more readily implemented, at least for those users.

2.7   The Consolidated Framework for Implementation Research

The Consolidated Framework for Implementation Research (CFIR) is a meta-theoretical framework that was developed by evaluating 19 previously developed KT theories based on the following criteria: influence on implementation, consistency in definitions, alignment with authors' findings, and potential for operationalization through measurement. The theory focuses on 5 domains. The first domain of the CFIR looks at the characteristics of the new knowledge or 'intervention' being implemented. Interventions are considered to be complex and multi-faceted actions with many moving parts, core components and adaptable elements (Damschroder, et al., 2009). Domain two, the outer setting, refers to the economic, political and social contexts around the place or setting in which new knowledge is implemented and the structural, political and cultural factors within the organization or place in which the new knowledge is implemented. Domain three, the 'inner setting", focuses on networks, communication, culture and climate of the organization and readiness for change. Domains two and three echo the implementation (including the co-development) of the clinic narrative in the present study. Constructs within these domains are dynamic and depend greatly on the implementation process. The fourth domain includes the individual(s), key actors in the organization with interests and connections that impact the implementation of new knowledge. The implementation process itself is the last domain of the CFIR. These constructs reflect the complex, active nature of the change process (Damschroder et al. 2009). A noted limitation of the CFIR is that it was developed for use in practical, clinical interventions, and may be challenging for use in implementing complex systemic interventions (Rojas Smith, Ashok, Morss Dy, Wines & Teixeira-Poit, 2014). Adaptations made to the framework for this study will be discussed in Chapter 5.

Understanding how PHC organizations implement changes to achieve equity-oriented care will add to the knowledge base regarding primary care renewal. This thesis focuses on a specific articulation of knowledge synthesis as an aspect of implementing a complex intervention. The proximate goal is to enhance tailoring, uptake, and impact of the complex intervention, and the ultimate goal is to understand how this kind of integrated knowledge synthesis process can enhance equity-oriented and evidence-based practice.

Chapter 3

3   Methodology

This study is a "two-case" case study design. Two cases augment one another and produce analytic benefit due to direct replication, enabling the researcher to perceive patterns in the cases (Baker, 2010; Yin, 2014) and actively construct new knowledge (Guba & Lincoln, 1994). The strength and fit of this approach for the present study lie in the fact that a novel intervention is used to examine and explore quality improvement efforts in complex environments (Anderson, 2005; Baker, 2010). Case study research is useful for exploring new processes or behaviours, and can explore the process of change through real-life methods (Angen, 2000; Baker, 2010; Hammersley & Atkinson, 2007). It is congruent with the overarching concerns around health equity-oriented care and the benefit of articulating findings in context (Anderson, 2005; Welsh et al., 2013). Qualitative semi-structured interviews are a good fit with this methodology as they are flexible and engaging (Mason, 2002) while co-constructing shared understanding. This results in thick descriptions of behaviour and context, which enables readers to make decisions about the trustworthiness of the study results (Shenton, 2004).

3.1   Study Design

EQUIP uses a multiple case study design and integrated knowledge translation approach, providing the basis for the present study to explore how PHC organizations use the clinic narrative to tailor the EQUIP intervention to their clinic context. The benefit of multiple case study is that it enables replication, moving results toward theoretical replication (i.e. producing contrasting results) or literal replication (i.e. the same results in each case), depending on the outcome or results (Baxter & Jack, 2008; Yin, 2014). Two of the EQUIP clinics – those based in Ontario – formed the cases examined for similarities and differences in the clinic narrative process. The units of analysis or 'cases' were the Ontario PHC clinics: a nurse practitioner-led clinic (NLPC) and a community health centre (CHC). Both clinics have an explicit mandate around equity but each represented a different type of primary health care model. A multiple case study was appropriate for this study as it is in keeping with the constructivist paradigm and is useful in studying complex phenomena in context (Baxter & Jack, 2008; Yin, 2014).

3.2   Setting and Selection

Qualitative research typically uses non-probability sampling where generalizability is not a fundamental goal but instead produces rich descriptions of a specific social situation (Higginbottom, Pillay & Boadu, 2013). Case study research is not sampling research; it is designed to bring perspectives of the cases forward for examination (Tellis, 1997). The first case, the NPLC, serves residents in a mid-sized city who experience barriers to accessing traditional health care, with a specific mandate to service women in transition and families. It employs 12 staff members across three clinic sites in various locations in the city. All sites of the organization are included in the EQUIP study and as such the clinic narrative reflects the entire organization. The second organization, the CHC, has one main clinic in a small town and three satellite clinics spread across a geographic span of 54 kilometres. One clinic site is located in a mid-sized city, two sites (one of them being the main clinic) serve rural communities and one site is on a First Nations Reserve. In total the CHC employs approximately 100 staff. The main clinic site in a small town and the clinic on the First Nations Reserve are included in the EQUIP study (both rural sites) and, therefore, the clinic narrative reflects part of the organization. As part of their organizational structure, a Board of Directors governs both clinics.

3.3   Data Sources and Procedures

The primary units of observation were the clinic leads (called 'leads' related to their involvement in the EQUIP study, not necessarily all in leadership roles at the clinics) and included nurse practitioners, administrators and a dietician. The clinic leads were the key stakeholders at the clinics and as such, had direct experience with the clinic narrative and had in-depth knowledge and experience related to the EQUIP study. The clinic narrative itself is not a specific data source for this study but the process of co-developing it is included to help the reader understand its iterative design (see Appendix B.1, B.2 & B.3). To begin the co-development of the clinic narrative, the researcher, acting as a research assistant for the EQUIP project, met with clinic leads at the two organizations to gather historical information about the clinic and the communities. Additional research was conducted by searching the Internet and academic databases for credible sources, such as Statistics Canada, Ontario Ministry of the Attorney General, Government of Canada and

First Nation websites. Where possible, primary or secondary sources (e.g. census data and institutional websites) were used but in some instances only tertiary sources or grey literature were found (e.g. The Canadian Encyclopedia), especially on historic events. A research assistant and clinic administrative assistants of the two clinics collated patient and community demographic data for the clinic narratives.

The initial draft of the clinic narrative (one for each clinic), developed by the research team, included a socio-political/historic and contemporary account, and some clinic patient population data (as available from the electronic medical record) specific to demographic and health status indicators reflecting EQUIP's operationalization of equity-oriented care. The collection of these data were based on a template created by the EQUIP research partners in British Columbia. These data were presented in tables, across geographic levels, at the local, regional, provincial and national levels for comparative purposes. A second iteration of the clinic narrative included a more focused 'profile' which incorporated specific EQUIP intervention details for each site used for the "Organizational Integration and Tailoring" planning part of the EQUIP project. This iteration also included specific data on the same kinds of population indicators presented previously, but drawn from the baseline phase of the EQUIP patient cohort data set; these were again presented in tabular and graphic form, allowing clinic staff to compare indicators for their patient cohort to different population-levels relevant to their setting. In the third iteration, EQUIP investigators offered each site the opportunity to view more of their baseline cohort data in areas of specific interest (for example, the issue of oral health emerged as policy-relevant over the past year, and all four sites, including those in British Columbia, requested additional descriptive data about oral health in the third iteration of the narrative).

Throughout this time, the clinic leads and the EQUIP research team engaged in a process of review, feedback and editing around the clinic narrative, clarifying historical and current details, and filling in gaps. Communications took place via email and in-person, and through scheduled meetings, over the course of eight months. An EQUIP Co-Principal Investigator (Co-PI) acted as a facilitator where clinic leads and other staff were involved in negotiating edits to the clinic narratives. Reviews and editing also occurred through a process where the clinic leads used the first iteration of the clinic narrative to prepare and

present about their clinic to educate study peers and the larger EQUIP project team during an annual team meeting.

Data were collected from the primary units of observation (the clinic leads who were connected with the two clinics), as well as from others who were directly involved in developing or using the clinic narrative. This included one individual who works external to the clinic, with a First Nations partnering organization, in close proximity to one of the participating clinic sites, and is a collaborator on the EQUIP research team. This person's added contribution to the study was important due to the relationship between the clinic and the partnering First Nation's service organization, and due to the individual's contribution to the co-development process of the clinic narrative. Relationships between the EQUIP research team and clinic leads are well established as part of EQUIP's integrated KT model.

Data were collected through multiple methods to enhance data credibility (Patton, 2002). Specifically, a combination of field observation, in-depth key informant interviews, a review of existing and archival documents and reflexive notes were used (see Table 1).

Method	Data Source	Contribution to the Study	Quantity of Data

• Meeting Transcripts	Key Informants (clinic leads, EQUIP researchers and study associates)	• Illuminate themes and patterns re:
		  o Perceptions of the intervention
		  o Inner and outer setting, characteristics & influence on perception of the intervention and its implementation
		• Process of implementation
			• 2 x 2 hour meetings
			  o 88 pages
			• 2 x 1 hour meetings
			  o 55 pages

• Interview transcripts (once beginning use clinic narrative to tailor the EQUIP intervention)	Clinic Leads	• As above • Systematic convergence of data to increase confidence of findings	• 5 x approx. 1 hour interviews o 82 pages
o Field Observations	Written field notes of observations (researcher and where appropriate research team) of setting/behavior from meetings	o Illuminate themes and patterns	o 7 instances o 13 pages
o Documents (Reviewed throughout study)	Organizational material (proposals, mission and value statements, annual reports) Email communication, specific to narrative, between and among Key Informants	o Contributes to illuminating themes and patterns	o 2 proposals, 1 annual report, 2 mission statement documents (not coded) o 37 pages of email text
o Reflexive notes and memos	Researcher	• Assists in positioning researcher's impact on results & in processing decisions & dilemmas • Assists in exploring inter-subjective relationships • Increases confidence of findings	• 15 pages of reflexive notes • 15 pages of coding memos

Table 1: Data Sources, Collection and Contributions

The constructs and domains of the CFIR (theoretical framework) were used to guide data collection. The researcher looked for perceptions of the intervention (the clinic narrative), the inner and outer setting characteristics as well as their influence on perception of the intervention and its implementation, and aspects of the process of implementation. The number of interviews and field visits was guided by ongoing analysis. Data was collected until there was sufficient evidence to answer the main questions of the study (Yin, 2014). Rival explanations for study results were considered during data collection. Bringing this thinking in at that time in the study helped to build more credible findings (Yin, 2014).

3.3.1   Field Observation

 Fieldwork was carried out through an observational role. Observations took place in a real-world context, during four planned meetings and one workshop. I observed discussions that focused on the clinic narrative process and the larger goals of improving equity-oriented care, including how the narrative interfaced (implicitly and explicitly) with the other components of the EQUIP intervention, in particular the process of organizational integration and tailoring in each clinic. With permission, I audio recorded the four meetings and transcribed the recordings. Jottings taken during observation were converted to field notes. As well, field notes were made after observations, and included those of other EQUIP team members, as appropriate. Field notes were made with a wide focus reflecting the study questions and the theoretical domains (Hammersley & Atkinson, 2007). Field notes were typed and imported into the qualitative data analysis software NVivo9.

3.3.2   Key Informant Interviews

I conducted in-depth semi-structured interviews with the four clinic leads and the First Nations clinic collaborator (n = 5). Interviews took place between April and June 2014, at a time when the organizations had progressed through the processes of co-creating the clinic narrative, had begun to use it to tailor the EQUIP intervention, and had developed perceptions about the narrative and its utility. Interviews lasted between 30 – 60 minutes and took place in person, at the participants' offices or by phone, as convenient to the participant. With expressed permission, interviews were audio-recorded and transcribed. The interview question guide was developed based on the constructs and domains of the

CFIR and the study proposition (see Appendix C). At the same time, I used recommended techniques for developing rapport and trust in interviews, as appropriate (Mason, 2002).

3.3.3   Document Review

Observations and interview data were also informed by reviewing related texts such as reflexive notes, relevant email communication between and among the primary participants and research team members, and archival records (e.g. annual reports, funding proposals). As in above data collection, the constructs and domains of the CFIR informed the process. In keeping with Finlay's (2002) approaches, reflexive notes were taken before and after field observations and throughout the analytic process to "open a window on areas that in other research contexts would remain concealed from awareness" (p. 541). This process adds to the credibility of the data (Yin, 2014). Reflexive journaling was done before or after contact with participants and assisted in positioning the researcher's impact on the results. Taking an introspective approach, I was able to process decisions and dilemmas that arose as well as explore inter-subjective relationships with research participants. In this way the researcher was an instrument for data collection (Morse, 1989).

3.4   Data Analysis

Through examination, categorizing and testing, data sources were converged rather than assessed individually, contributing to a stronger understanding of the meaning of results (Baxter & Jack, 2008; Yin, 2014). I transcribed verbatim audio-recordings of meetings and interview and analyzed them alongside field notes. Transcribing is itself part of the analytic process, more than simply creating a text of talking since the transcriber engages deeply with audio material and makes editorial-type decisions (i.e. how best to use punctuation and exclusion of extraneous utterances) (Tilley, 2003).

The following steps from ethnographic researchers Roper and Shapira (2000) were used as a starting point to ensure a systematic process for analysis: 1) coding for descriptive labels, 2) sorting for patterns, 3) identifying outliers or negative cases, 4) generalizing with constructs and theories, and, 5) memoing including reflective remarks. Coffey and Atkinson (1996) caution that the act of coding is not the analysis process itself, but is

instead a way to link and categorize concepts. Therefore, the analytic work happened in the cognitive and affective realms, making links between the data and my impressions and thoughts about the data. Themes from the CFIR were also used to develop codes *a priori* based on the perceived good fit between the framework and the study design. Computer-assisted qualitative data analysis software (NVivo) compatible with this process was used (Bazeley & Jackson, 2013; Higginbottom, Pillay & Boadu, 2013).

Transcripts were analyzed initially using a mix of both an "emic" frame of analysis and an "etic" perspective from the a priori CFIR framework. I started with general categories from the CFIR, and continued to code in more detail, adding and eliminating categories using the participants' words and perspectives, specific to the research focus of the study (Coffey and Atkinson, 1996). This was in keeping with 'menu of constructs' approach (Brehaut & Eva, 2012), remaining open to constructs that might have been missing from the CFIR. Data was then grouped by conceptual codes, which was informed by the study proposition. Patterns and themes were combined into larger domains, and relationships among them were considered during the interpretive phase (LeCompte & Schencsul, 2013). During the interpretative phase, I explored and tried to explain the relationships between domains and further explored what was working or not working.

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┌─────────────────┐          ┌─────────────────┐
│ Coding based    │          │  Begin case     │
│ on CFIR and     │ ───────▶ │  analysis       │
│ in vivo         │          │                 │
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│ Transcripts,    │          │  Develop        │
│ Field Notes,    │ ───────▶ │  analytic memo  │
│ Emails,         │          │                 │
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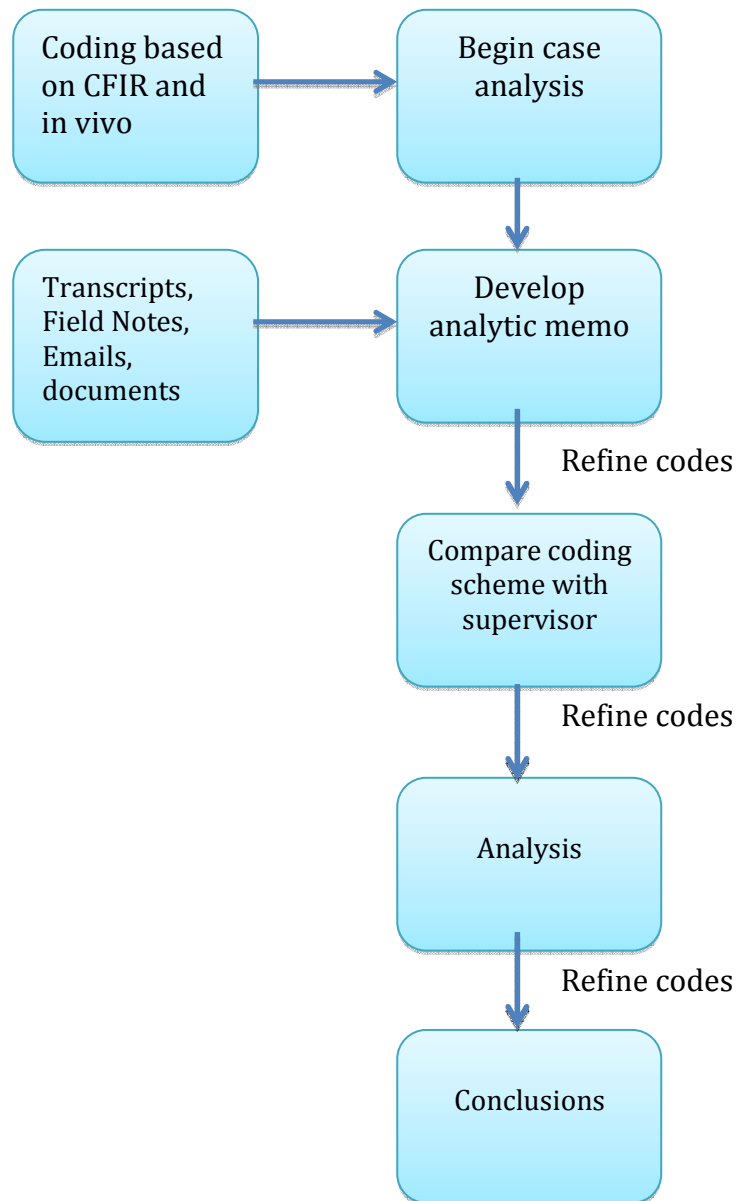
Based on Damschroder and Lowery, 2013

Figure 1: Analytic Strategy

 A random subset of data (two interview transcripts) was independently coded by my supervisor and compared against my coding and I revised the codebook accordingly (see Appendix D for the final code book and Chapter 5 for further discussion). A combination of inductive and deductive approaches to this inquiry assisted in analysis and interpretation (Bazeley & Jackson, 2013). To ensure the study remained bounded but well synthesized, I communicated regularly with my supervisor and thesis committee members. Meetings with the research team provided opportunities to discuss evolving themes and patterns in the analysis.

3.5   Data Trustworthiness

The study design demonstrated coherence between the research question, the qualitative approach, the paradigmatic approach and case study methodology. The study protocol ensured a meaningful selection of cases and that processes with participants reflected credible, sincere and transparent approaches (Tracy, 2010). Reflexivity was used as a way for the researcher to disclose and negotiate biases (Finlay, 2002). Contrary to the notion of bracketing that Creswell and Miller (2000) put forth as a way to manage such biases, the integrated role of the researcher acknowledged an impact on the data, and, therefore, the results. This interpretative process is detailed in this report. The potentially sensitive focus of this study and the fact that the researcher may appear to be scrutinizing the clinic leads' work, their roles or the organization as a whole, could have created a sense of concern that the researcher was judging their performance. As such, relationship and rapport building throughout the study with key informants was important (Cruz & Higginbottom, 2013).

In this study, data triangulation took place through repeated questions, including asking contrary questions of the data, ongoing discussion and observation by the researcher, all to seek evidence convergence (LeCompte & Schencsul, 2013; Yin, 2014). Throughout this study, I discussed the evolving data collection and analysis process with my thesis committee (also members of the EQUIP research team). Comparing and contrasting the non-coded data (e.g. organizational documents, study proposal, my project journal) with coded findings (e.g. observations, interview and meeting transcripts, field notes, reflexive notes and email communications) contributed to enhanced credibility of the data.

3.6   Ethical Considerations

The study has been approved by Western University's Health Sciences Research Ethics Board (Protocol # 103357). Protocols for informed consent, confidentiality and anonymity, as appropriate, in the gathering of data and reporting of results were followed. Consent was obtained from participants for interviews and recording, with opportunities provided for data to be excluded at the participants' request. Data was kept secure using a password-protected laptop and paper files kept in a locked drawer.

Chapter 4

4   Results

The purpose of this research was to observe, explore and examine the perspectives and experiences of primary health care provider organizations in developing and using a new type of knowledge synthesis tool, a "clinic narrative", to explicitly implement an intervention to enhance equity-oriented care, as well as to uncover other unanticipated uses.   The following research questions informed the study: 1) how does the clinic narrative, which includes both the document and the co-development process, implicitly and explicitly change practices in the clinic to influence equity-oriented care? 2) what facilitates or constrains the use of the narrative? 3) what are the unanticipated and potential uses of the clinic narrative? During in-depth interviews, study participants described their perceptions and experiences throughout the development of the clinic narrative and related to the document itself. The research findings that this chapter reports are based on analysis of the following data sources: semi-structured interviews, organizational documents and the researcher's observations within meetings and email communications.

Data converged around three main themes:

1. Use of the narrative, including anticipated and unanticipated uses

2. Factors facilitating the clinic narrative intervention

3. Barriers to implementing the clinic narrative intervention

While the data within the themes and subdivisions are, for clarity, discussed separately, it is important to note that during analysis there was much overlap among the themes

4.1   Case Background/Sample

Of the two clinic leads who were interviewed at the NPLC, both were direct care providers, a nurse practitioner (NP) and a dietician. Beth (all names have been changed to protect identity), the lead NP, summed up the clinic's mandate as,

…providing services to women and their families who have had access issues to the health care system. So that may be that they have not been able to obtain a family doctor, it may be that they have one but can't access because they've missed too many appointments or they've been let go from a practice because of 'poor attendance' or poor compliance and really it is in the nurse practitioner world that holistic approach to family centred health. So really we can't just take care of the minor sore throats without looking at the mental health without looking at the broader scope.

For the CHC, one NP and one administrator participated in interviews, along with a participant affiliated with a related service on the First Nations reserve, as described above. Alex, an administrator, described the mandate of the CHC as providing primary care to marginalized communities: First Nations persons, seniors, marginalized youth, low-income persons, and persons with mental illness. Alex went on to say CHCs in Ontario are the only PHC model that has health promotion and community development built-in to the framework and the only PHC model to compensate physicians on a salary model as opposed to fee-for-service or other form of compensation. Significant events for the CHC are the growth of programs and services in the recent years, and the shift in care provision by clinical staff (specifically the NPs), taking on patients with more complex presenting and chronic concerns. Administratively, much focus has been on operational tasks and projects. Both clinics are interdisciplinary.

Some study participants talked at length on a few themes, while others covered more themes. Nonetheless all of the participants' voices are represented in this report.

4.2   Theme 1: Use of the Narrative

This theme is discussed in two parts: 1) purpose of the narrative and 2) actual use. Each section is further broken down into themes from the participants' experiences and perceptions.

4.2.1   Purpose

Participants were asked about their perceptions of the purpose of the clinic narrative and about its potential or anticipated uses.

4.2.1.1   Understanding the Patient Population

Participants described the purpose of the clinic narrative as a way to document the historical community and clinic context. One participant went on to explain that having this context clears assumptions that people may have about the community or the clinic and in this way helps to explain the community. Participants described the narrative as a vehicle to further understanding the patient population from a socio-economic perspective, and explicitly relate this to their health needs. As well, it was thought to be a unique way to understand patients' perceptions of the practices and policies of the clinic (as seen in Iterations two and three), thereby a way to learn about clinic practice and policy strengths and weaknesses in direct relation to what the patient population wanted or needed.

In Beth's words, "It's really informing me about my patients in a whole different way, so it's not just each individual, it's this overview….we admit, as a clinic, is probably different between our sites but it helps us to really sit back and reflect." Beth gets at the notion that the clinic narrative will assist staff to reflect and to validate the nature of the services that its staff provides. Similarly, Diana, a dietician, reported the purpose of the clinic narrative,

> To gain understanding and to collect information that will give us a little bit more truth about what gives our client[s] hope, if I could say that. What is our goal? Where should we move with this? And if we need to add more services, then we have a way to go about it. What is the need, basically, if we are looking at the whole population of people we serve?

4.2.1.2   Tailor Clinic Practices and Policies

In Diana's perspective above, we hear that the narrative is thought to help the clinic to tailor services, programs, practices or policies based on patient need. Others talked about it as potentially assisting with organizational strategic planning and policy development, specifically in an expedited way. Since the patient survey data were current, it accelerated the process of change due to having access to real-time patient data. The process of co-creating the clinic narrative could have helped the organizations identify and articulate themselves, as staff reflected on the clinic and community development and history.

Participants thought that it could be used for the orientation of new employees. Similarly it could be used to re-orient existing staff around equity-specific clinic objectives and mission. In this way, the clinic narrative could be seen as a heuristic device, a shortcut path back to the original orientation of the clinic's philosophical stances and values that frame the care provided to patients.

Alex, an administrator, thought the clinic narrative was beneficial in two main ways: a) for communicating with community partners and building or sustaining relationships and b) in communicating needs to funders. Alex stated,

> It's a growth opportunity to share and create a document…there's huge value in a document like that, for even capital and that kind of proposal writing because [partners] are in need of space, just as we are, maybe more desperately. And you use that as a joint strength to say, we're together and this is what we do together and this is how we share resources and this is an integrated model.

Diana thought that other community services and providers could benefit from the clinic narrative content as way to learn about the clinic. If clinics shared knowledge, practices and polices broadly, the clinic narrative as a knowledge intervention, could help potentially accelerate and broaden improvements toward equity-oriented PHC. Diana also suggested that the content could be used for their organizational website. To expand on this suggestion, organizations could broaden the scope of their reach by tailoring content on the website to reach, engage, educate and support patients virtually, by providing general clinic information and more targeted content around known prevalent health concerns directly relevant to the population being served by that clinic. Academic partners and practitioners at an EQUIP research team meeting suggested that the clinic narrative could influence decision makers and policy actors toward equity-oriented care if the intervention was spread through influential professional organizations.

In two instances, participants noted explicitly that the clinic narrative did not inform the organizational tailoring process for the EQUIP study.

> Researcher: Did it [the narrative] initiate some ideas around particular projects [related to EQUIP]?

Beth: [n]ot yet. I think it's still, I mean even the last generation, it takes people to really sit down and think them through. I think it will come. I think the staff stabilization has to come first.

This is a significant and interesting result that will be explored further in the discussion section.

4.2.2   Actual Use

There was a significant amount of overlap between participants' understanding of the purpose of the intervention and the ways they actually used the clinic narrative. This section contains six subsections describing the various perspectives about use of the narrative: 1) understanding the patient population, 2) organizational development, 3) relationship building, 4) validation, 5) funding and 6) other uses.

4.2.2.1   Understanding the Patient Population

All participants spoke about patients' needs as complex and interwoven, requiring approaches to health care targeting "all levels" [Alex] so that "clients trust us more and we make more progress" [Beth]. Clinic leads spoke about patients without employment benefits who could not access services for chronic pain (e.g., physiotherapy or dental care). Participants also recognized the importance of culturally competent and trauma and violence informed care in meeting the needs of First Nations and immigrant populations, with trauma and violence informed care relevant to other marginalized patient populations such as persons with severe mental illness or persons who identify as LGBTQ.

Participants also recognized that patients need access to the clinics in ways that fit their individual circumstances. The NPLC in particular talked about patient transportation issues. Beth stated, "Transportation is the other thing that surprised us too. Most of our sites are easily on a bus route, however it is shocking to us at the end of the month how many people cancel appointment because they can't get here."

With the addition of EQUIP patient data from the baseline data collection point, the clinic narrative informed the clinics on specific issues such as the patients' opinions on the clinics' processes of care, patient prevalence of depression and trauma and

intergenerational trauma symptoms, rates of unemployment, patient transportation issues and patient levels of dental health. About the patient data included in the clinic narrative, Beth reflects

> It allows us speak with more authority and say 'this what our clients are experiencing, this is the reality of dental care in this population'. For example, if you are trying to decide between going to the dentist and putting food on the table and getting a bus ticket, the dentist is not going to happen.

Similarly, Rena, the First Nations service provider and research team collaborator remarked, "When you're looking at health status or perceived health status and the depression and trauma….when you see that and you see it on paper, that only benefits you in terms of directing your services and programs." Rena's perspective touches on the benefit of learning about prevalence rates, and being able to compare clinic patients' health indicators to broader rates in the population, i.e., "[the comparative data] helped set the scene for how we adjust our practice"[Beth].

4.2.2.2   Organizational Development

The data grouped under this theme were defined as instances where the clinic narrative, or the process of developing it, was variously linked to organizational-level clinic development. In this statement from Alex, from the more established organization, notes that the clinic narrative was perceived to be a beacon of sorts, guiding the clinic leads toward a self-determined starting place for organizational change

> When you sit back and you think about what we do…staff need to move forward, moving forward so we're all on the same page. I think that has helped us to, developing the follow-up out of the project, what you had to do, lead us to where we wanted to start.

Alex spoke about a new document the organization was creating, since co-developing the clinic narrative, to clarify their stance on harm reduction. Teri, an NP at the same clinic, commented on the culture shift that was rippling through the organization, "You can just hear people [staff] are getting it [equity-oriented principles] a bit better and you just

remind them how most people [patients] have faced hurdles or pointing out their resilience. People [staff] are getting it". In this way, Teri sees that the narrative has re-oriented clinic leads on the clinic mission and objectives and perhaps this trickle-down (along with the larger EQUIP intervention) has impacted the culture and climate.

Likewise for the newer clinic, the clinic narrative as a reflective process and "learning tool" [Diana], increased awareness and assisted clinic leads in articulating clinic services and patient population needs in context. Diana from the NPLC described what she perceived as a shift in the culture of the organization where staff spoke up about issues related to care provision and patient education. Diana's perspective touched on issues of power in the clinic among different professional groups, specifically regarding who had the authority or expertise or to speak about processes of care. As well, she talked about a decision making process that took place around the clinic narrative.

> I had a meeting with [name] and [name] and we narrowed down to a few choices and we used the narrative, and from that we went to the team and gave some time to think about it, and then we met [the sub-team], and we chose what we going to do with our plan of action, what we going to do.

 It is not clear whether this was a new practice for the clinic, nonetheless it demonstrates an important planning and decision making process toward practice change, using the clinic narrative as a starting point, and including the broad staff team.

4.2.2.3   Relationship Building

For both clinics, through the development process there were three notable iterations of the clinic narrative. For the CHC specifically, developing the clinic narrative included a deliberate process of engaging partners, especially regarding the history of the relationship with the close proximity First Nation, to review the socio-historical narrative content along the way. They reviewed and edited the written perspectives of the shared historical context of the clinic and the community. Partners were able to learn each other's perspectives through rewriting historical accounts and events and came to a mutually acceptable version, despite historical tensions in the broader communities involved.

Alex stated,

I think it is a huge opportunity when you read things in a document where you really didn't know that was the perspective of the other and it's the first time you've heard anything other than positive feedback. You're like, this is awesome because this is saying something isn't quite aligned with them, there's some thoughts here that need to be talked about or clarified. It's a growth opportunity to share and create a document like that.

Rena noted that since the beginning of the narrative co-development process, the First Nation and CHC were having more regular partnership meetings. Alex noted that they were able to serve their common community better as a result of the co-development process.

For the NPLC, Diana noted that the clinic narrative helped in understanding the roles of the direct care practitioners better and commented that she wanted to see more content included in the clinic narrative around the different contributions of the allied health care providers.

4.2.2.4   Validation for the Staff

Participants in the NPLC noted opportunities for reflecting on the nature of their work and feeling a sense of reassurance and even justification, that the impact of the work (mentally and emotionally) is proportional to the intensity and complexity of the clinic populations' needs. Beth commented, "Sometimes when we think we've had a hard day, and there's been lots of things, it's reassuring to look at that and say, 'yeah there are a lot of needs'. There really are." For a participant from the CHC, the reflecting that took place around the clinic narrative was rewarding, as it gave them a sense of job satisfaction. "For me it's so cool to see our history because it's been my history and I've been part of building this…" [Teri].

4.2.2.5   Funding

One of the clinics wrote a proposal to fund physiotherapy for their patients with chronic low back pain and without health insurance using content from the clinic narrative. It was

also used in writing a proposal for translation services for their non-English speaking patients. Both clinics responded to the high prevalence of patients' poor oral health and oral pain. Staff knew this was an issue for their patients but the process of seeing the data in a tangible, compiled way gave them the footing to apply (or reapply) for funding for programs specific to oral health. One of the clinics used content from the clinic narrative in a proposal for a senior's health program. Additionally, the clinic narrative helped the NPLC articulate their funding needs as a result of understanding their patient population more clearly. "Funding needs to change a little bit. We need a bunch for interpretation, we need to access or provide service for people who have limited access because of the fact that they are new Canadians…" [Beth]. In fact, this became the basis for one of the specific strategies integrated by this clinic from the broader EQUIP intervention, which included seed funding for these kinds of tailored activities.

4.2.2.6   Other Uses

Indirectly, the clinic narrative was noted for use in educating others, via proposals that were written using the content, or through the process of negotiating a shared history between community partners. More directly, the clinic narrative was used to educate the public and community partners during community and academic presentations.

> "…when I go out and talk, for example I was at a LIHN talking about what is our population and how might that differ from sole practitioner on [place] St. otherwise? Being able to say, these are the people we are serving, this is the turnover and this is the multitude of issues that they face. So it [the clinic narrative] helps me to articulate that better." [Beth].

4.3   Theme 2: Facilitators of Use

This theme captured elements that facilitated the implementation of the clinic narrative (where implementation of the narrative refers to its co-development process and its use) and is broken down, based on the CFIR framework, into three parts: 1) inner setting characteristics, 2) characteristics of the narrative intervention and 3) outer setting.

4.3.1   Inner setting

The participants spoke about the elements of the organizations' inner settings that facilitated the implementation of the narrative in these ways: 1) clinic structure, 2) clinic culture, 3) implementation climate and readiness for implementation and 4) communications.

4.3.1.1   Clinic Structure

The NPLC is structured loosely and non-hierarchically, with an organizational, administrative lead who was new to the organization, and an NP Lead, who is responsible for clinical practice development. Some staff work mainly at one of clinic sites; others work across sites and provide outreach services in varied locations. Clinical policies are described as "loose" [Beth] and evolving as the clinic develops, consciously so, in order to accommodate the fluctuating needs of the patient population. Beth stated, "That's a deliberate thing. We are a young clinic. Some of those policies have to be a bit organic and not made in stone because we don't know yet." As such, there was a culture of adaptability that wasn't constrained by layers of approval or bureaucracy to navigate, to engage clinic leads in the clinic narrative co-development process. This clinic has three sites spread across a mid-size city with varying patient needs across the sites. During one of the EQUIP research team meetings, clinic leads at the NPLC spoke about the staff group being in a state of flux, with some staff turnover, and some staff experiencing challenges in aligning their practice with the clinic's equity-specific model of primary health care.

The CHC structure seemed somewhat more hierarchical, with an executive director and a management team overseeing the large staff group across four sites and a wide geographic area. With a twenty-year history, the organization continues to evolve new programs across its multiple sites. Alex, with the organization since its inception, remarked on organizational growth,

   You're so consumed with operational start-up and facilities and systems and you have
   twenty people and now you have a hundred and none of your systems work. You have
   to manage your systems first, before we've had the opportunity to move to this kind of

work that we've been waiting to get to, but we're finally at a point in our organization
that we can.

While this comment remarks on the structure of the organization and managing change
processes, more importantly, it signifies the readiness and ability to reflect and plan, in
order to implement changes.

4.3.1.2   Clinic Culture

Both clinics provide comprehensive PHC, with referral for specialist care. An NP at the
NPLC stated,

> It isn't like one problem per visit. You've got to deal with the whole ball of wax
> because they are all intertwined. For example, I was working with a woman the other
> day who is diabetic, lost her job. When she lost her job she lost her benefits, so now she
> can't afford the insulin, which she really needs. Dealing with the blood pressure,
> dealing with the cholesterol. She can't afford a healthy diet and because she lost her
> job. She's on EI so she has the money but she doesn't have any drug card…we've
> spent hours getting Trillium[3]

This example gets at the values that practitioners uphold in their work as they identify and
then try to tease apart patients' presenting concerns from the influence of key social
determinants such as income security, especially when the two are so closely linked.

Participants were aware that organizational culture could also be site-specific, presenting
more of a challenge for staff who travel across the clinic service sites. However, despite
the variations, staff take on a strong advocacy role for all of their patients, regardless of
site. Staff members at the NPLC thought they should be working at a structural level,
referring to working at reducing structural barriers that patients face. This is notable in
that it suggests staff are ready to access and use a document (the narrative) that reflects
and therefore supports the advocacy work they engage in on a daily basis.

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[3] Trillium Drug Program is a program funded by the Ontario Ministry of Health and Long Term Care for
people who have high prescription drug costs relative to their household income. (MOHLTC, 2013).

One practitioner reported that prevention and promotion is a central focus in her work, and that this focus is both effective and efficient when approaching the overall health of populations. All participants stated they engaged in patient-centred, strengths-based care yet they perceived these approaches to largely be incompatible with funders' accountability requirements.

4.3.1.3   Implementation Climate and Readiness for Change

Alex expressed awareness that timing was a factor in any change or implementation of a new process. For example, implementing a new clinic-wide data management system and electronic medical record during the EQUIP study period shifted the organization's priorities in terms of focus and energy for change. As such, timing could be perceived as both a facilitator and a barrier. The CHC seemed to be opening itself to research partnerships, with the EQUIP research project being the first in its twenty-year history. In response to the larger EQUIP research project, Teri commented, "…that training (equity, TVIC and ICC) is so crucial, it's so essential. It's not optional and…we just appreciated having it and that we wish, we think everyone within our health facility, I think the whole world should take it…". Although a new clinic, the NPLC was more familiar with academic research partnerships, having an affiliation with the local university since the initial incarnation of the organization, through foundation funding, where the founders were researchers (the clinic was later mainstreamed by the Ministry of Health and Long-term Care).

In terms of growth, the participants from the CHC reported that it was focusing on strategic partnerships and planning for the next 5 years and was dedicated to improving relationships, especially with First Nations partners. As well, the CHC was working with a provincial quality improvement consultant around equity-oriented initiatives. Speaking to the climate of the organization, the clinic leads reported that the staff team voiced their desire to have the same training across the organization, regarding health equity, to ensure consistent service delivery.

4.3.1.4   Communications

Both clinics used an electronic medical record (EMR) to manage patient data and document clinical encounters. At the time of this study, the NPLC had previously integrated its first electronic documentation system, while the older CHC clinic was actively implementing a new EMR, transitioning from a previous database system. The EMR can be seen as a facilitator to the uptake of the intervention because it provided the potential for improved data mining and analytics about patient populations and processes of care. It will be further explored as a barrier to implementation, below.

Both clinics used team meetings of varying formats, as well as informal discussions to communicate on clinical and organizational issues. The NPLC was concerned with issues around growth and team building while the CHC was considering a new decision-making and governance structure and process.

4.3.2   Characteristics of the Narrative as an Intervention

Implementation of the narrative intervention refers to the co-development steps (i.e., how people contributed, how they interacted, what they contributed and reactions they had in relation to this process) as well as the clinic narrative itself. The data is subdivided into the following categories, describing both the process and the product of the clinic narrative: 1) co-development process 2) novelty and 3) sustainability.

4.3.2.1   Co-development

The co-development process, as part of the intervention, was interactive and bi-directional. For some it was unifying, with a sense of 'bridging' between partners. Rena commented, "I have a good feeling that this will be a great opportunity to work closer together in the future to improve the services for the community". The research team (involved in co-developing the narrative) was responsive and receptive to feedback and adaptable when participants engaged in questioning and critiquing the process or the content of the clinic narrative. The clinic narrative was described by one of the EQUIP researchers as a "living document" referring to the process of co-development, which was iterative, with refining and polishing based on feedback, and new data added to

subsequent iterations, on request. Teri stated, "I think it's amazing having this, as you described it, a living document, because it's based on the [patient survey] interviews that just happened, so that's pretty amazing."

The process and the product were described as balanced and respectful. Rena said,

It's a tricky process for sure doing a profile like this. It's hard to say either way if it was right or wrong. I think a really good job of balance was done and I think the final product is a good one that most people would be happy with.

Teri stated,

Every time I read it, it so resonates with me and my own personal beliefs. I think that's how I've been able to jump aboard because I'm not very academic. I'm an in-the-trenches clinician and always will be and was wary of getting involved. I'm just very grateful that I have. Learned a lot but it's also just been very validating on a personal level and I think that is percolating through the staff here in ways that are nebulous.

4.3.2.2 Novelty

Participants responded that the historical component of the clinic narrative was unique. Alex commented,

It's different, I mean the LHIN [Ontario's regional health authorities are known as Local Health Integration Networks] documents, they have statistics and strategic directions. What's different about it [the clinic narrative] is the history of the town or the [place name] piece. I think that's the piece that's really valuable. 'Cause that piece you're not going to get from census per se, written like that.

Participants noted that other similar documents existed, such as proposals that contained background detail or contextual information in which the program is situated, but not with the same depth or comprehensiveness as the clinic narrative.

4.3.2.3   Sustainability

Sustainability is described as the systems and processes related to the clinic narrative intervention that would see its capacity to endure. The components of the clinic narrative itself that were noted as effortlessly sustainable were those that were historical in nature, as they were unchanging. However, with changes to the organization, staff or decision makers may elect to edit the historical, socio-political components to feature particular events or eras. To continue to narrate the clinics' stories, a process of documenting changes would need to be operationalized by the staff or by particular individuals within the organization. Beth remarked,

> The background information will be obviously easy to work with. Obviously we will need an update at some point because the [client data] information will not be accurate. Our clientele may change and just keeping track of that, it's a lot of work.

Beth also discussed sustainability, perhaps more broadly in terms of scaling up, for different settings beyond the NPLC model,

> It's pretty new to me. Having seen it and read it, what pertains to us and seeing things that surprised me and things didn't surprise me, I could certainly see this application working. I am not so sure it would be totally well received in what people see as a business model clinic, but I think in Family Health Teams[4], it could be very informative, especially in places with high staff turnover.

4.3.2.4   Design Quality and Packaging

Participants responded that while the text in the clinic narrative was lengthy, they accepted that it was necessary in order to narrate the clinics accurately. Some recognized that details about the communities where the individual sites were located would have been helpful, but also recognized this would make the document even longer. They liked the flow and order of the material overall. Participants responded in favour of the visual elements of the narrative, the photos and the data visualization techniques, like graphs and

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[4] Family Health Teams in Ontario are "patient-centred medical homes where people can access care from multiple health care providers … in one setting". Physicians are part of the team on a capitation compensation model (base payment per patient) (Hutchinson and Glazier, 2013.).

charts. Direct care professionals expressed a preference for visuals to take in the information quickly.

4.3.3   Outer Setting

The data that was analyzed to facilitate the implementation of the intervention under the theme 'outer setting' is broken down into two main areas 1) peer pressure and 2) external policy and incentives.

4.3.3.1   Peer Pressure

Peer pressure is defined as the participants' perception of competitive pressure to implement the intervention. Pressure, in this context, is the positive force that peer groups exert within and between the clinics either directly or indirectly, to influence the clinics and staff to implement interventions that contextualize care. Pressure as a constraining force will be discussed in the section on barriers to implementing the clinic narrative intervention. The scope of this study did not extend further than including one peer, a close-proximity First Nations service provider partner to the CHC.

Clinic leads discussed partnerships with other health related community organizations aimed at reducing "siloed" [Alex] programming, such as experts in health policy, public health, mental health and addictions, First Nations health and research. Peer pressure as a positive force toward implementing the intervention can be considered in these ways: 1) if peers recognize that they can fill in service or program gaps for each other, thereby sharing resources and reducing redundancy and 2) when peers educate each other in their areas of expertise and consequently impact culture change of the organization. Alex remarked, "Resources are tight. Nobody has any resources. How do we work better with our partners if they have some good planning and programming and let's just shake things up." Rena noticed areas where the CHC clinic could change their practice to improve health outcomes for the shared First Nations patient population. "I think they need to have confidence at [the CHC] that they can make that referral [to the First Nations health service] and we will try to get that person whatever they need." This observation from a peer technically outside the organization is valuable, and is considered a facilitator toward the implementation of an intervention that ultimately serves to improve patient care.

4.3.3.2   External Policy and Incentives

There were few data that related to participants' perceived instances of external strategies, policies or mandates that did or would encourage the implementation of the clinic narrative intervention. A broader but related way to think about this is any policies that encourage equity-oriented care. In one example previously mentioned, the CHC was working with a provincial equity consultant on initial objectives around adoption of a province-wide health equity charter. This systemic action is considered a facilitator in the adoption of health equity principles on a broad scale and indirectly encourages other interventions that reinforce improvement toward health equity.

Other influential external policies and guidelines will be analyzed under the following 'barrier' theme.

4.4   Theme 3: Barriers to Implementing the Clinic Narrative Intervention

This theme reflects data around participants' perceptions and researcher observations of barriers to the implementation of the clinic narrative intervention and is broken down to: 1) inner setting, 2) characteristics of the intervention and 3) outer setting. In general, there were fewer data around barriers to implementation, although data that is reported while less in quantity is significant in potential impact.

4.4.1   Inner Setting

Over the eight-month course of the clinic narrative intervention process, Alex (CHC), reported that co-occurring significant changes in organizations interfered somewhat with an engaged focus on the process and progress of co-developing and sharing the clinic narrative with the entire clinic staff and Board members. Similarly for the NPLC, around change management issues and as a younger clinic, Beth stated "There's been so much change there and I think because we didn't have the foundation. Some people, different people have different levels of capacity to deal with stress...".

Participants reported that the process of collecting clinic-level patient data from existing records (so as to compare them to the study cohort) was challenging. Some patient demographic data was missing from the electronic medical record (EMR) (i.e., not

routinely collected) or data had to be tabulated manually, as reporting and query functions were not user-friendly or did not exist at all. At the same time, clinics reported that they did not have the dedicated resources to mine data for this kind of research, or to do the type of formatting involved in the clinic narrative.

As Diana noted previously, interdisciplinary staff teams may also present a barrier in terms of implementing the clinic narrative intervention, since different professions have different professional cultures, for example differences in collaborative versus more independent styles of practice or perceptions of authority or power in decision-making. Finding an alignment among them may be challenging in terms of the resources (e.g. time, financial cost or facilitative skills) required for such a process.

4.4.2   Characteristics of Narrative Intervention

Barriers directly related to the narrative itself converged in two ways: 1) barriers to the co-development process and 2) barriers to sustaining the clinic narrative. In this study, one of the EQUIP co-PIs acted as a facilitator in a negotiation process with clinic leads, and in the CHC case, between the clinic leads and the First Nations partner. However, some participants expressed varying degrees of frustration with the iterative process, and in coming to an agreed upon account of historical developments in the community and related to the clinic and its partners. While this is presented as a barrier, it is important to note that the participants who expressed frustration tempered this with an expressed awareness that it was a negotiation process that would only serve to improve services to the community, and that the version of the historical narrative landed on was acceptable to both communities.

With regards to sustainability of the intervention and how participants would see the intervention continuing in the future, participants were unclear about whose role it would be to maintain or repeat the process (or a version thereof). One of the CHC clinic leads recognized that process would take time and expertise, while a participant from the NPLC commented on the challenge in accessing patient and community statistics. Participants from both clinics expressed the desire to incorporate all clinical sites of the organization in the clinic narrative, including the socio-historic perspective. For one of the cases, the clinic narrative was written to reflect the city level context and not the specific to the

areas, or neighbourhoods of each of the three clinic sites. Participants talked about the different contexts of each of the areas. With clinic site-specific information excluded from the clinic narratives, some expressed that it was perceived to be only partly beneficial. For example, one participant talked about advocating to the municipality for changes to the public transportation system for one of the sites of the clinic. She thought that having site-specific contextual data would assist in this endeavor.

Rena speculated that the clinic narrative would help the CHC with proposals and funding and in this way, could create competition for organizations with common patients (such as hers), resulting in vying for limited financial resources. Rena also felt there would be a significant improvement to the clinic narrative by adding personal stories and reflections from the included patient groups.

Beth noted a downside to the clinic narrative intervention related to its potential use. She suggested that once practitioners and staff have their intuitions validated around gaps in care related to patient needs, the organization is ethically compelled to act on solving those problems, which could add to the perceived 'burden' of care that organizations experience. It is possible that this may act as a deterrent.

4.4.3   Outer Setting

Participants reported that current funding structures do not support dedicated research and evaluation roles. Alex pointed out,

> That's the issue for CHCs. They don't have that manpower to even support what we've even tried to be part of. We don't have all this research and we don't have a person that can keep it up. Not just for us but in primary care, they just don't have that capacity in their models.

This data indicates that barriers or disincentives to implementing the clinic narrative intervention exist in the form of incongruence between what the system expected and what the needs of the clinics were (the 'system' refers to the funding and policy making environment). For example, all participants spoke about the systemic barriers that were assessed to directly interfere with the implementation process (e.g., difficulty mining

patient data relevant to the clinic narrative from mandated EMRs, as above) and the nonobvious barriers, such as the mandated PHC measurement indicators that do not capture all the types, or the complexity, of care provided by the clinics, such as care targeted at the social determinants of health. Participants spoke about various federal, provincial and municipal structural barriers and policies that fall short of meeting the clinics' and ultimately, the patients' equity-oriented needs.

4.5   Summary

The results converged around three main themes: 1) use of the clinic narrative, 2) facilitators to implementing the narrative intervention, and 3) barriers to implementation. Table 2 below shows the many similarities and subtle differences between the two cases (names of the clinics have been omitted to protect their identity).

Features	NPLC	CHC
Inner Setting		
Structure	- Open 3 years, small, urban, spread across 3 sites - Interdisciplinary team with consulting physicians	- Open 20 years, large, spread across 4 sites. - Study sites: rural/small town & satellite FN reserve - Interdisciplinary team, with salaried NPs and physicians
Clinic Mandate	- PHC to women and their families who have had access issues to the health care system - Family Health Model	- PHC to marginalized populations - Interprofessional PHC Model with health promotion and illness prevention services
Clinic Focus	Building patient base Expanding roster/panel	Established patient base Expanding roster/panel
Culture and Climate	Flux Patient Advocacy Adaptable Experience with research partnerships	Consistency Collaboration Adaptable New to research partnerships
Clinic Policies	Loose & evolving	Established, ?shared governance
Readiness for Implementation	Partially, considering change management	Partially, considering change management
Communications	EMR in place	New EMR during study
Intervention Characteristics		
Use of CN	Organizational identity Learning tool	Organizational change Beacon or guide
	Validation re systemic barriers and complexity	Validation re systemic barriers and complexity
	Understanding pt. populations	Understanding pt. populations
Co-development process	Engaged No challenges	Engaged Some negotiation challenges
Novel Approach	Yes	Yes
Sustainability	No funds for research/eval role	No funds for research/eval role
Outer Setting		
Peer Pressure	Systemic barriers	Systemic barriers

Table 2: Clinic Similarities and Differences related to Intervention

Chapter 5

5   Discussion, Conclusion and Implications

The purpose of this multiple case study was to add to the evidence base around PHC improvement through the exploration of a co-constructed knowledge intervention, a clinic narrative, to inform local changes needed to help shift a clinic's practice toward more equity-oriented care. In this chapter I will synthesize, interpret and discuss findings and relate them to current literature.

5.1   Discussion

This section will look at the ways in which the study results intersect with relevant literature and where new questions or directions for inquiry are generated. The main questions that framed this study were: 1) how does a new knowledge intervention, consisting of a product (a 'clinic narrative' co-created by the researchers and the clinic leads), influence practices in the clinic specific to equity-oriented care? 2) what facilitates or constrains the use of the clinic narrative, and 3) what are the potential novel uses of the clinic narrative for other organizational goals? Through an analysis and interpretative process, the research questions were answered as reported in the previous chapter, through the process of active reflexivity and coding the data. Collaboration with research participants throughout ensured that their views were woven into the study (Creswell & Miller, 2000), which enhances the credibility of the study results.

The CFIR as a comprehensive framework has shown promise in organizing, containing and understanding the meaning of the study findings but is not without its limitations. The framework's most relevant domains provided an approach to interpreting the study findings while keeping the study focused on its objectives. However, adaptations were made while actively using the framework during coding (Rojas Smith, Ashok, Morss Dy, Wines & Teixeira-Poit, 2014). For example, I combined one of the five domains, "Process-Implementation" with "Intervention Characteristics" as it became evident during the coding and analysis phases that the process of co-developing the clinic narrative (previously one of the constructs I added *in vivo* to the Process-Implementation domain) was actually part of the intervention itself. This clarified what was meant by

'implementation' of the intervention, with a newly understood definition of the intervention as both process and product. Damschroder et al. (2009) described implementation of an intervention to mean the routine use of the intervention in clinical practice and it became clear that this was not the case in this study. In another example I added a construct under the Outer Setting domain as I noticed a pattern in the data where external structures were perceived to be a barrier or there was a disincentive toward the clinic providing more equity-oriented care. Data that converged here spoke to the potential motivation behind the use of the clinic narrative.

When comparing coding with my supervisor, as expected (and in line with a relativist view), there was agreement and there were differences (Armstrong, Gosling, Weinman & Marteau, 1997). More important than coming to consensus however, was discussing our perceptions and thoughts, and in some cases as noted above, this led to a new way of understanding the data and subsequently, a change in the coding structure.

Table 2 summarizes the clinics' shared similarities and differences in key areas related to the study's main themes. Research on the structural determinants of implementation shows that larger, more established organizations with "semi-autonomous interdisciplinary project teams" would implement interventions more successfully (Greenhalgh, Macfarlane, Bate, & Kyriakidou, 2004; p. 591). This was not shown to be the case in this study, at the point of reporting. Regardless of the size of the organization, the clinics implemented the intervention with only subtle differences in use. The implementation factors and differences will be discussed below. Examining longer-term implementation of the intervention, outside the bounds of this study, would provide new insights.

5.1.1   Research Question 1: How does a new knowledge intervention influence practices in the clinic specific to equity-oriented care

As one of the steps in changing policy and practice, and in keeping with Browne et al.'s (2012) dimensions of equity-oriented PHC, the clinic narrative intervention helped the organizations 'zoom in', providing a way to view the patient population more clearly through the lens of the organization. This deliberate focusing seemingly brought increased awareness related to the socio-political contexts of the clinics and at the same time, validated what the clinics already knew through day-to-day experiences. Participants talked about demands on staff time, energy and resources due the complex presentation of patient needs. Results demonstrated that nonetheless, staff advocated for patients who faced systemic structural barriers in meeting those needs. Both patients *and* staff ran up against systems that were perceived to be fundamentally unjust. In these instances, the result for staff could be a type of cognitive dissonance, where staff knowledge and values conflict with the kind of care and services they have the capability to provide. As well, compassion fatigue and vicarious trauma are real adverse effects for professionals working in emotionally challenging environments (Slatten, Carson & Carson, 2011). Indeed, a specific tailoring strategy (through the EQUIP study) articulated at one of the clinics dealt explicitly with vicarious trauma and compassion fatigue. As well, the impact on the organization if the staff members are dealing with the effects of the disparity between patients' needs and services available, could be stagnation and a lack of necessary change. Besides the obvious and irrefutable need for a healthy staff group, Senge (2014, p. 9) argues that focusing on the ways that people think and their learning capabilities within a paradigm of systems thinking is the answer to sustained organizational change.

A process of conscious articulation may have birthed a slightly altered organizational identity for the clinics and is reflective of an 'organizational learning' process. Reay et al. (2009) describe organizational learning as a dynamic process that draws on both past experience and new insights, and recognize that knowledge within an organization is sustained beyond the tenure of an individual in that organization. Nutley and Davies (2001) argue that in some cases, the individuals in an organization can hold more knowledge and learn more than the organization itself (i.e., related to the organizational

structure, culture and climate). This discrepancy between levels of learning (i.e., individual staff and the organization) can act as a barrier to organizational change. The clinic narrative may have assisted with organizational learning by illuminating the gaps between clinic staff knowledge and the related organizational structures. For example, when the participants talked about their understanding of the importance of providing PHC in ways that were adaptive to the needs of the patients, rather than forcing patients (with complex needs and trauma histories) to bend to the structure of the clinic, they were demonstrating their knowledge and valuing of responsive care. Browne et al. (2012) defined inequity responsive care as "explicitly addressing the social determinants of health as legitimate and routine aspects of health care, often as the main priority" (p. 5). The "Organizational Integration and Tailoring" phase of the EQUIP study aims to support the implementation of practice and policy changes toward more equity oriented care. If the clinic narrative has the potential to engage key stakeholders in organizational change then the barriers to implementing the clinic narrative need to be mitigated in order for the intervention to be taken up.

Nutley and Davies (2001, p. 36) define organizational learning as "collaborative inquiry". The focus during this stage is the process of achieving collectively, rather than other types of learning (e.g. acquiring knowledge, skills or personal development). The clinic narrative, perceived to be a collective learning tool, may have assisted the clinic leads along this path of understanding. The NPLC was not only a relatively new clinic but also a new PHC model, and seemed to be at a reflective stage, looking to understand how and where they 'fit in' with the wider PHC and health sector. Similarly, the CHC, an established yet still evolving organization, perceived the clinic narrative as a guide, a beacon for organizational change relevant to its context. Results show that the clinic narrative helped to identify gaps in policies and where new ones needed to be written or solidified. With background detail provided via the clinic narrative, these aspects of organizational tailoring and change could happen, in ways that were custom fit to the context[5]. These may be necessary acts of 'zooming in' on the organization before sustainable practice change can take place (McWilliam & Ward-Griffin, 2006). This is echoed in the words of Beth who denied that the clinic narrative directly helped them in

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[5] The broader EQUIP study includes a more detailed analysis of each site's funding and policy context that will be used to understand how the main intervention was implemented and its impacts.

tailoring their practice as part of the EQUIP study, because they determined they had some 'organizational self-care' to tend to first. Other reasons for this will be discussed later in this section.

Culture and climate are pulse points of the organization. The clinic leads reported subtle shifts in clinic culture and climate during the duration of this study. For both clinics, the clinic narrative intervention may have opened discussions that otherwise would possibly be perceived as low priority (lost in the day-to-day demands) or would be potentially difficult to deliberately initiate. In one instance, a study participant talked about a time when she was involved in a positive group discussion about clinic practices related to patient education, which touched upon the issue of interdisciplinary team and power structures. The participant, not one of the clinic managers, stated this was notable because it was not a common discussion topic. She was sharing a moment where she felt the clinic culture shifted through conversation and subsequent learning (Jordan et al., 2009). In line with Reay et al.'s (2009) findings, this result illustrates an example where organizational learning is potentially enhanced as a result of the involvement of a neutral, non-managerial staff member in enabling a generative, problem solving and empowered atmosphere.

Thus, organizational change happens at the professional level as well as the organizational level. Transformative change of individual mindsets happens through existential inquiry into understanding the change in the context of one's professional role in the organization (McWilliam & Ward-Griffin, 2006). Research on nursing professionals, for example, indicated that processes of critical awareness and critical engagement could lead to social change (Reimer Kirkham, Van Hofwegen & Hoe Harwood, 2005). As such, the clinic narrative intervention could offer a unique opportunity for an increased focus on the professionals, their role in the organization as well as the opportunity for social change, toward more socially just organizations. As follows, the clinic narrative intervention seemed to offer the clinics an opportunity for reflection for critical inquiry and for learning. Reflecting is an active purposeful process aimed at problem solving or thinking about something that doesn't have an apparent answer. It is an iterative process that occurs at different levels and is enabled by an organizational culture where respect and support for learning are priorities (Mann, Gordon, MacLeod, 2007).

The results demonstrate the clinic narrative may have also helped participants zoom-out, to see 'the system' in which they worked more clearly. Staff at both clinics perceived challenges in striving to provide the comprehensive suite of services that the public and funders require. While providing "people centred care", CHCs are challenged to achieve this by definition, given the external barriers that exist and the conflicting agendas, such as government-imposed PHC indicators attached to CHC funding, which do not reflect care demands associated with the SDH, a known challenge within the PHC sector (Baum, Begin, Houweling and Taylor, 2009). As such, the co-development of the clinic narrative fostered broad discussions around social justice and presented a process for clinic leads to continue to articulate their awareness around the issues of power and oppression related to PHC for marginalized populations.

Clinic leads, from varied backgrounds, within teams of interdisciplinary staff, will understand social justice from their personal, professional and organizational perspectives. For example, groups of health professionals have different codes of ethics. The Canadian Nurses Association's Code of Ethics lays out ethical values and corresponding ethical responsibilities that registered nurses in Canada are expected to uphold, as well as actions that nurses could undertake to address the social inequities that affect health and well-being (CNA, 2009).

Despite functioning in a broader system structured to favour the biomedical model of health, the clinics were trying to shift or maintain a division from traditional medical models (one that views health primarily from a biological perspective). While this study's aim was not to explore the PHC model or the clinics' models of care in-depth, it is noted that participants from both clinics made observations and expressed concerns about the varied degree of 'illness focus' of the clinics, wondering how this approach met marginalized patients' needs. Through deliberate discussion about the models of care of the clinic, Rena, associated with the CHC with a large population of First Nations patients, stated that Indigenous patients prefer and need access to more holistic models of care, with a focus on continuity of care. Indigenous-based research confirms these needs (Bingham, 2013; Browne et al., 2010). The clinic narrative offered an avenue to articulate these stances.

5.1.2   Research Question 2: What facilitates or constrains the use of the clinic narrative?

Clinic leads from both clinics participated in the co-development of the clinic narratives. This process emerged during this study as a significant part of the intervention, essentially shifting the focus of the study from a singular vision of the intervention as a knowledge product, to a knowledge intervention comprised of both process and product. The iKT approach is considered relevant for understanding the findings and lends itself to results that are likely to be taken up more readily. iKT is, theoretically, a participatory approach where knowledge users bring expertise alongside researchers' expertise in response to a problem, to co-develop research questions, methods and methodologies, and study design, and to co-interpret findings (Parry, Salsberg, Maccauley, 2009; Kothari & Wathen, 2013).

The integrated approach to knowledge translation assisted in building rapport whereby the mutual benefits became evident as the process evolved (Kothari & Wathen, 2013). The research team was able to evolve its vision (i.e., around the knowledge synthesis tool to include process of development) and the participants expressed a positive experience working as part of a collaborative research project broadly aiming to improve their clinic practice. In this study, different than a comprehensive iKT approach, knowledge users did not directly co-create research questions or designs (though they did for the larger EQUIP research program).Seeing the narrative as a knowledge synthesis tool, and as embedded in the EQUIP intervention, is something that emerged over time, and therefore the notion that it ought to be studied formally was also emergent. Therefore, the iKT aspect of their involvement in this sub-study was mainly in the collaborative co-development of the knowledge product, the clinic narrative. The data indicated that this process was a dialogic, open exchange. Parry, Salsberg and Maccauley (2009) stated that valuing all types of expertise is key to an integrated approach and data showed that this was the case in this study.

Kothari and Wathen (2013) discuss inherent challenges to an integrated approach to KT and many of these points were seen in the present study. Participants spoke about the lack of dedicated time and staff resources for research and evaluation work in their organizations and cited this as an anticipated challenge in sustaining the clinic narrative

intervention beyond the term of the research. Kothari and Wathen (2013) discuss the need for co-developed project guidelines. In the present study, participants from and associated with the CHC, with a longer more entrenched social and historical background, expressed some frustration with the iterative co-development process. Facilitation skills and brokering were implemented in co-creating the clinic narrative, a potential challenge since shining a light, 'as outsiders' on clinic issues could create a sense of being judged or other negative reactions. This is not to say that challenging discussions are best avoided to alleviate discomfort. Participants who experienced frustration also expressed optimism for improved partnerships to better serve common patient populations. An agreed upon framework, such as the Delphi Consensus technique (Hsu & Sandford, 2007) may be beneficial in laying the groundwork for the important processes of negotiating sustainability of these kinds of products. As discussed above the emergent and developmental nature of this sub-study may explain some of the experiences of the participants.

There are many benefits of the integrated participatory approach. In the current study, similar to Kothari and Wathen's (2013) contention that transformational processes take place throughout iKT, participants' involvement in the co-development process and in absorbing knowledge along the way, may have facilitated some internal processes for the clinics. For example, in one instance, a team of clinic leads undertook a stepped decision-making process using the clinic narrative as a source and starting point. In another instance, nearing the time when the final iteration of the clinic narrative was developed, one of the clinics opted to create a new organizational stance document on a particular health issue. While specific causality was not an explicit goal of this study, it is interesting and can be proposed that tacit knowledge may have been taken up during the interactions between the researchers and the clinic leads (Lam, 2000) around the intervention (both process and product) where new networks formed and "joint-sensemaking" took place (Kothari & Wathen, 2013, p. 187).

While participants responded positively to the uniqueness and the presentation of the clinic narrative document, many commented on its length and spoke about the need for quick ways to take in information. The following research touches on the importance of understanding different facilitative factors enhancing knowledge sharing.

Gabby and LeMay (2004) discussed patterns of knowledge management among PHC providers. Their research recommended that knowledge should be incorporated into practice and advised knowledge producers not to rely on prescriptive techniques for dissemination or simple solutions that did not incorporate context. The authors noted that the providers under study did not use clinical practice guidelines or literature to inform decisions, but rather relied on networking with trusted colleagues. This "knowledge in practice" observation was captured in the definition of mindlines, which are, "Collectively reinforced, internalised tacit guidelines…informed by brief reading…but mainly by their interactions with each other…" (p.3). The authors went on to say that mindlines were refined or updated by talking to colleagues, and mediated through organizational communication structures such as frequency of meetings, use of computers and culture of the clinic. Similarly, in examining ways that knowledge is exchanged, Farmer et al. (2011) indicated that printed educational materials, like clinical practice guidelines, were passive dissemination strategies, deemed somewhat beneficial to process outcomes but not to patient outcomes, when compared to using none. Sibbald, Wathen, Kothari and Day (2013) contended that to enhance uptake of new knowledge in PHC settings, organizations should use networks within clinics, as well as use technology and information specialists to support knowledge sharing. This research suggests that the traditional, linear process of knowledge sharing may not be a facilitative factor in using a document like the clinic narrative, where its purpose could be to orient, re-orient or educate staff in an organization.

Research indicates that more preferable is the use of knowledge transfer and exchange methods such as opinion leaders. Opinion leaders are people who are seen as likeable, trustworthy and influential and will champion knowledge. They are key actors in the knowledge chain (Flodgren et al. 2011) and offer a nonlinear way of sharing knowledge. One of the current study's participants talked about "jumping on board" with the clinic narrative project because the underlying values around health equity aligned with her own values. This individual could be seen as an effective knowledge dissemination vehicle and a natural champion for the project within her organization, and even beyond. This deliberate engagement of opinion leaders or champions may well contribute to the culture of a learning organization (Reay et al., 2009).

Rena made an astute observation around the lack of personal stories and patient reflections in the clinic narrative. In a commentary on narrative-based medicine, Greenhalgh (1999) wrote that instead of reporting facts and unrelated bits of information, narratives tell a series of events as a story, holistically and may uncover subversive issues. Although not an easy endeavour, if co-developed with the inclusion of patient voices and stories, packaged and disseminated in relevant ways for the knowledge user, the clinic narrative may move organizational knowledge more readily, particularly around equity-oriented principles, from tacit to more explicit, and potentially more relevant ways through effective and meaningful knowledge exchange.

As previously mentioned, results indicate that the narrative assisted in viewing the organizational structure, culture and climate. At the same time, the organizational structure, culture and climate are facilitative factors, particularly for future uptake of the narrative. The NPLC was an open culture, with a loose policy structure and more flattened organizational hierarchy. Results also indicated that the clinic leads perceived the organization to be in a state of flux regarding staffing. While the newness, spread of the organization and staff group in flux presented obvious challenges in terms of organizational communication, identity formation and consistency around practice, at the same time these elements may present an opportunity. The organization, in a fluctuating state, may well be open to learning and problem solving. Kitson (2009) and Begun, Zimmerman and Dooley (2003) argue that organizations are not machines; instead they are dynamic and emergent systems. If leaders within the clinic accept this flux and flow as expected phases of 'organizational life' they may be more open to organizational learning and subsequent change.

The more established clinic also showed indications of being adaptable, based on its interest in problem solving and collaborating to meet patient needs. Change in a larger organization would logically be more complex but due to its age would have had the benefit of time to reflect on change processes. Despite this suggestion, the CHC demonstrated that it recognized its stage and phase as one of readiness for change, evidenced by its on-going work in strategic planning and with the provincial health equity consultant.

Clinic leads from both clinics remarked that the clinic narrative was different than other documents they had seen or that the clinics had generated, such as proposal applications or strategy documents, and different than what the Local Health Integration Network (LHIN) (the regional health authority) would produce. The clinic leads recognized the novelty of the clinic narrative but did not communicate a precise explanation of what was different about it. One of the staff at the NPLC called it a "learning tool", suggesting a subtle yet important motivation behind (and facilitator of) the clinic narrative. Different than a proposal, the clinic narrative tone was objective and not written with a specific intention to attract funding. In an online course aimed at teaching skills about proposal writing, the introduction encouraged the proposal writer to use a persuasive tone, "In the competitive environment which now exists, funders demand a credible and well-researched plan that shows evidence of being likely to succeed" (The Health Communication Unit, nd.). The LHIN is a government body and as such may be more likely to report on population data through a specific strategic lens. The clinic narrative was co-developed and written with a goal of providing a balanced, credible account on the socio-political historical and contemporary contexts of the clinics.

This research highlights broad issues around change management and implementing new interventions in PHC. This resonates with Hutchinson et al. (2011), who discuss the many reform initiatives and innovations aimed at improving PHC in Canada. The authors refer to shifts around the culture of PHC, for example, moving to interprofessional team structures, encouraging patient enrollment ('panel targets'), varied funding arrangements and increased focus on performance measurement and quality improvement tactics. All of these changes were observed in the results of the present study. This suggests that change itself could be a barrier to implementing more change. Patients' complex social and health needs can amplify the internal and external pressures that organizations experience as they move toward change. It is key to consider how to manage pressures as result of change, as this process relates to the importance of sustaining a healthy workforce through context-relevant governance, management and leadership (Walkerman & Humpheries, 2011).

Time was also a perceived barrier to the implementation of the clinic narrative intervention. Time is necessary for co-development and collaboration between staff, researchers and partners. Sargeant, Loney and Murphy (2008) found that communication

was the essential factor in successful interprofessional PHC teams and that the deliberate development of specific skills was required for effective communication. Competencies around teamwork and communication (e.g., mutual respect) and development of protocols to guide patient care across disciplines were key. In line with the present study, this research demonstrates broadly that time to enable deeper understanding on multiple issues can improve PHC and lead to better patient outcomes. Greenhalgh, Macfarlane, Bate and Kyriakidou (2004) state that access to resources over and above operational needs (for example resources that support team development) impacts implementation of health interventions.

The findings also suggest that the clinics' data systems impact implementation of interventions that could improve patient care. EMRs are set up to document patient encounters and patient demographic information and to facilitate the collection of PHC indicators as determined by the health system and clinic funders (Stewart, Thind, Terry, Chevendra & Marshall, 2009). One of the challenges for the clinics around EMR use was that data fields were not set up to capture equity-oriented PHC. Relevant data for the clinic narrative that accurately reflected the clinics' patient populations were either absent or too time consuming to tabulate. In a presentation from the Canadian Institute for Health Information, Bidie, Fogg & Grimm (2014, p 5) note that "systems are not set up to extract, manipulate and analyze data" as systems are unstructured and non-standardized, with much free-text input options. The indicators that the systems are built on do not include equity-oriented PHC indicators and as such, the care that is provided in clinics is not captured (Wong et al., 2011). Additionally, clinics require adequate staff resources and expertise around data management in order to collect and analyze data for the clinic narrative. This may not be an integral part of the clinic's staff complement and presents an important barrier to consider.

5.1.3   Research Question 3: Other Novel Uses of the Clinic Narrative?

An unanticipated use of the intervention was as a bridging tool, helping to build two key collaborative partnerships. First, the clinic narrative intervention contributed to building positive relationships between the researchers and the clinic leads. Researchers working in integrated ways with practitioners and policy makers need to possess a well-honed skill

set that includes a solid understanding of the roles of the professionals they are engaging (including understanding their schedules and how people are compensated for their professional services) and a comprehensive awareness of cultural, language, power and knowledge differentials (Parry, Salsberg & Maccauley, 2009). This is important since getting research into action more effectively and in more relevant ways stands to benefit not only health outcomes but enables a positive growth-inspiring experience for professionals (Baumbusch et al. 2008; Kothari & Wathen, 2013; Parry, Salsberg & Maccauley, 2009).

Second, the clinic narrative intervention was helpful in bridging a relationship between the CHC and their close-proximity First Nations service provider partner (note that as previously reported, a similar partner for the NPLC did not exist, and as such they did not use the clinic narrative in this way). This use of the intervention, toward partnership enhancement, is important specific to the details of this study on two levels. Bingham (2009) reports that historically, due to the devastating events and effects of colonialism, research relationships with Aboriginal peoples in Canada have been fraught with power imbalances and oppressive approaches. As a result, Bingham (2009) reports that Aboriginal groups have limited and restricted access to their peoples as research participants. The current study's aim was not to engage directly with the First Nations people connected to the CHC (though many consented to participate in the EQUIP patient cohort), but it is noted that developing a more positive collaborative relationship is one of the uses of the clinic narrative intervention. Most important in this regard, is that the CHC and the First Nations partner came to a mutually acceptable version, through the process of negotiating the clinic narrative details, of the historical events related to the inception and development of the CHC, and its satellite clinics, one of which is on First Nations land. This process enabled an experience around acceptance and envisioning the future, and in fact became one of the tailored strategies selected by the CHC in the overall EQUIP intervention implementation. Both partners spoke about strengthening and building services for their common communities and patients, to work to reduce overlap in services and to share resources. These positive relationships may also serve as a signal to others in the organizations about organizational culture shifts around engaging in evidence-informed collaborative relationships.

The findings suggest that using the clinic narrative may have assisted with increasing awareness about the interprofessional relationships within the clinic as well as with and among professional networks and associations (who may be networked with funders) external to the clinic. This is noteworthy because interprofessional teamwork is essential in improving service provision (Sargeant, Loney and Murphy, 2008; Zwarenstein, Goldman, & Reeves, 2009). As well, telling the story of the clinic and its patients in context could be helpful for decision makers and funders to coordinate and synthesize PHC and health systems, rather than just allocating funds. The actual text of the clinic narrative is only one point within a process of articulating a clinic's story. For future use, it is conceivable that maintaining the clinic narrative intervention could regularly nudge organizations (and potentially the systems in which they are situated) along, in a constantly changing PHC environment, sustaining awareness of equity-oriented care practices and policies and encouraging movement around issues of power and oppression related to health.

There were two instances in the data where clinic leads did not see a connection between the clinic narrative and its use for tailoring practice for the EQUIP intervention specifically. In both instances the clinic leads described how staff groups came up with strategies to tailor the practices in the clinics that centred on clinic approaches to patient care and staff self-care. It is an interesting result where staff definitively responded that the clinic narrative intervention did not assist in coming to these decisions and yet other data reported here supports the notion that the clinic leads used the clinic narrative to understand and articulate the organization in context. One suggestion is that more time may be needed for the clinics to realize the potential of the clinic narrative. As well, since the clinic narrative process took place nested within the larger EQUIP study it may have been challenging to discern the boundaries of specific interventions.

It is noteworthy that the original purpose of the clinic narrative as viewed by the EQUIP research team was to summarize the context of each clinic participating in the EQUIP project so that the research team could use that contextual information to situate the clinics alongside the results of the EQUIP intervention tailoring and evaluation. This original intention evolved so that the clinic narrative became an integrated knowledge translation intervention. In this way, this intervention became defined by and was inclusive of the

process of co-developing the narrative in addition to the product itself. This is an interesting approach to the EQUIP research study in that it mirrors the notion that organizations, as systems, are not machines operating in a "logico-deductive paradigm" (Kitson, 2008, p. 220), rather they are interactive and complex, requiring appropriate shifts and adjustments.

In summary, the narrative helped clinics both zoom in and out and acted as a bridging tool with partners. The co-development process, simultaneously part of the intervention itself *and* a positive outcome of the intervention (the collaboration) was a facilitative factor, making the process engaging for participants. A lack of time, prioritizing change management for the clinic teams and the usability of the EMR were all barriers to implementation. Unintended competition among PHCs with a clinic narrative and those without could result in increased vying for funding in a challenging fiscal environment. Using the clinic narrative to share the clinic's story with decision makers and policy actors could help contextualize the decisions around systems and policy.

5.2   Summary and Recommendations for Future Research

This study showed that both new clinics and more established clinics in diverse settings might find use for a clinic narrative intervention. Newer clinics may use it as a learning tool, while more established clinics could use it as a beacon, to help guide and/or reorient the organization, in this case to more equity-oriented care practices. Future research is needed to evaluate the use of the clinic narrative intervention over a longer time period, with a focus on its use orienting new staff, or for aligning and re-orienting staff around organizational missions and mandates, as PHC is a quickly changing environment. At a minimum, teams should maintain and even expand the co-development processes among the key actors in the clinics, researchers and other partners during future implementation efforts of the clinic narrative intervention. Partners could include key actors such as Boards, close peers or community partners and patient groups. Involving knowledge users more broadly elevates the participatory process around decision making related to clinic practices and policies (Durand et al., 2014). How far to extend this participatory and iKT approach is dependent upon process and outcome goals and resources available. Other considerations include the value and role of knowledge or information specialists to act as

brokers, providing a bridging role and helping facilitate negotiations among participants. Further research on the value of organizational development and learning on topics specific to equity-oriented health care, as PHC develops new practice models and aims to refine more established ones, will be important. The clinic narrative intervention may be a helpful process and product in developing key clinic stances, as well as a way to communicate organizational strategic directions in context.

Organizations could consider how to use the content within the clinic narrative to populate an organizational website. Websites can be viewed as more than a digital form of a pamphlet. They can be viewed as first-access and entry points to the organization, for potential patients, partners and funders who may have questions about the services, the mission, vision and philosophies of the clinic. Additionally, the clinic narrative could inform web site developers about the information that would be relevant to post, what is important to patients with a goal to directly engage patients. In this way, developers (working closely within a co-development team) could tailor information on the website to match needs. Clinics could post links to credible educational material as well as information about services the clinic offers and links to other services and partners. In this way the clinic narrative provides a base for a continuation of care and a place where practitioners can refer patients to get more information. More research in this area will be important.

5.3   Limitations

This research study takes place within the context of the larger EQUIP study. Results are understood within the bounds of other influential forces acting upon the clinic. During the time frame of this study, co-occurring workshops, trainings and meetings took place for both the clinics. Therefore the boundaries between the 'intervention' under study and the interventions of the EQUIP study and other events may have been blurred for participants. This is noted as it may have made it challenging for participants and the researcher to reflect solely on the uses and impacts of the clinic narrative.

While a number of convergent data sources were used, there was a relatively small number of interviews (n=5), since it was necessary to include participants who had knowledge of the clinic narrative and had interacted with it, and the timing of this study

within the larger EQUIP study limited how many staff had been exposed to the narrative. More participants and, therefore, potentially more varied perspectives would add to the richness and credibility of the results. In qualitative research, generalizability is not a goal. Rather, the goal is the production of rich descriptions of a specific social situation (Higginbottom, Pillay & Boadu, 2013). The possibility of participant bias exists. The participants were aware that the researcher participated in co-developing the clinic narrative and therefore may have consciously or unconsciously amended their responses about the clinic narrative during interviews. I attempted to mitigate this by developing rapport and trust with the participants before the interviews.

The results were assessed for their authenticity and trustworthiness, and generalizability to a broad theory or theories (Yin, 2013). Member checking was not carried out as part of the study design (although was an integral part of the co-development of the clinic narrative). Member checking would have tested the accuracy of the researcher's interpretation of participant perspectives. However, thick description, triangulation of data and debriefing was used to try and mitigate this limitation (Shenton, 2004). Trustworthiness was addressed by checking the interpretation of the coding scheme by having my supervisor do some coding and comparing our understanding.

The CFIR while a useful framework for this type of analysis had some limitations in its use involving complex interventions, those with multiple components, particularly those aimed at changing health professionals' behaviour (Campbell et al, 2000). Although the CFIR was adaptable, I found it highlighted a need for more KT research that specifically focuses on evolving tools and metrics that capture various kinds of interventions from simple to complex.

5.4   Conclusion

This case study research suggests that context is an important consideration when shaping health care services to ensure an appropriate fit between the patient population and the health care service, especially when endeavouring to address social determinants of health and reduce health inequities. A clinic narrative, a novel knowledge synthesis process and product developed in this study, may be a useful knowledge intervention to assist clinics

and others in articulating and enacting specific goals. Understanding the impact of this unique intervention on PHC practice and/or policy changes may contribute to health systems improvements.

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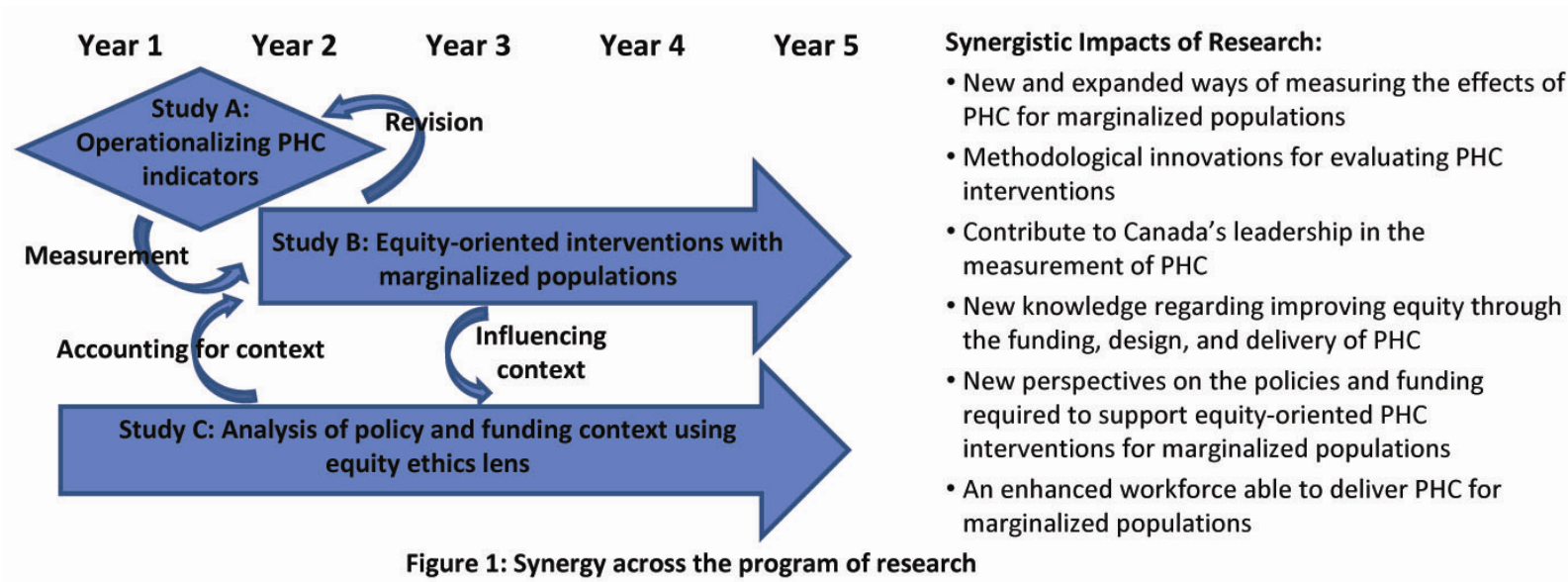NAPeriodicals/OJIN/TableofContents/Vol-18-2013/No2-May-2013/Impact-of-Evidence-Based-Practice.html

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APPENDIX A

EQUIP Research Goals

Figure 1: Synergy across the program of research

(EQUIP, 2013)

APPENDIX B.1

CHC Clinic Narrative Iterations

Iteration 1	Iteration 2	Iteration 3
Section 1: A Brief History to Current Times • Town/Rural area • First Nations Reserve • Key Historical Events-Town & County • Key Historical Events-First Nations • Current Times • Health and Well-being – Current Challenges	**Section 1: A Brief History to Current Times** • Town/Rural area • First Nations Reserve • Key Historical Events-Town & County • Key Historical Events-First Nations • Current Times • Health and Well-being – Current Challenges	**Section 1: A Brief History to Current Times** • Town/Rural area • First Nations Reserve • Key Historical Events-Town & County • Key Historical Events-First Nations • Current Times • Health and Well-being – Current Challenges
Section 2: Community Health Centre (Town and First Nations sites) • CHC – Opportunities and Challenges	**Section 2: Community Health Centre** (Town and First Nations sites) • CHC – Opportunities and Challenges	**Section 2: Community Health Centre** (Town and First Nations sites) • CHC – Opportunities and Challenges
References	**Section 3: Description of the EQUIP Patient Sample at CHC** • Demographics • Health Status • Understanding the Clinic's Equity-Oriented Care Processes	**Section 3: Description of the EQUIP Patient Sample at CHC** • Demographics • Health Status • Understanding the Clinic's Equity-Oriented Care Processes
	References	**Section 4: EQUIP Intervention Processes, Outcomes & Next Steps** • Intervention Overview • Summary Action Plan • Action Planning Discussions
		References
		Appendix 1: Detailed Baseline Data on Oral Health and Mouth Pain

APPENDIX B.2

NPLC Clinic Narrative Iterations

Iteration 1	Iteration 2	Iteration 3
Section 1: A Brief History to Current Times • City • Early History – Aboriginal People • Early History – Founding of city • History – Growth and Development • Current Times • Health and Well-being – Current Challenges	**Section 1: A Brief History to Current Times** • City • Early History – Aboriginal People • Early History – Founding of city • History – Growth and Development • Current Times • Health and Well-being – Current Challenges	**Section 1: A Brief History to Current Times** • City • Early History – Aboriginal People • Early History – Founding of city • History – Growth and Development • Current Times • Health and Well-being – Current Challenges
Section 2: NPLC • NPLC – Opportunities and Challenges	**Section 2:** NPLC • NPLC – Opportunities and Challenges	**Section 2:** NPLC • NPLC – Opportunities and Challenges
Section 3: Description of the EQUIP Patient Sample at the NPLC • Demographics • Health Status • Comparison of Key Health Indicators, Across Geographic Levels	**Section 3: Description of the EQUIP Patient Sample at the NPLC** • Demographics • Health Status • Comparison of Key Health Indicators, Across Geographic Levels • Understanding the Clinic's Equity-Oriented Care Processes	**Section 3: Description of the EQUIP Patient Sample at the NPLC** • Demographics • Health Status • Comparison of Key Health Indicators, Across Geographic Levels • Understanding the Clinic's Equity-Oriented Care Processes
References	**References**	**Section 4: EQUIP Intervention Processes, Outcomes & Next Steps** • Intervention Overview • Summary Action Plan • Action Planning Discussions
		References
		Appendix 1: Detailed Baseline Data on Oral Health and Mouth Pain

APPENDIX B.3

Examples of Data Tables in Clinic Narrative

Table 1: Comparison of Key Health Indicators, Across Geographic Levels

Health Indicator	Rural CHC	Ontario	Canada
Diabetes	8.4%	6.8%	6.2%
COPD[1]	4.7%*	4.2%	4.3%
High blood pressure	23.0%	17.4%	17%
Arthritis	23.6%	17.3%	15.8%
Asthma	8.8%	8.3%	8.3%
Obesity	22.9%	18%	18%
Pain/discomfort preventing activities	15.6%	13.5%	12.5%
Mood disorder	6.3%	6.8%	6.4%
Daily smoker	19.3%	14.5%	15.6%
Heavy drinking (5+ drinks at least once a month for past year)	20.6%	15.9%	17.3%

Note: "Health regions [such as the Public Health Unit] are administrative areas defined by provincial ministries of health according to provincial legislation" (Statistics Canada, 2013a) In this case, County and the Health Unit appear to cover the same geographical area. However, one data source reports the population of the Health Unit in 2011 as 131,513 (Statistics Canada, 2013a) whereas another source reports the 2011 population of the County as 126,199 (Statistics Canada, 2012a). Table statistics from: Statistics Canada, 2013b.
[1]COPD - Chronic Obstructive Pulmonary Disease *use with caution

Table 2: Comparison of the County with CHC Health Indicators, Clinic Population and EQUIP Cohort

Health Indicator	County (CCHS)	CHC – Clinic (as available)[1]	CHC EQUIP Cohort[2]
Perceived health			
Very good or excellent	54.1%		35.1%
Good	17.4%	NA	38.1%
Fair of Poor	18.5%		26.8%
Perceived mental health			
Very good or excellent	67.7%		56.7%
Good	23.4%	NA	27.6%
Fair of Poor	8.9%		15.7%
Heart Disease	Ontario: 5%[3]		11.2%
Diabetes	8.4%	15.4%	24.1%
High blood pressure/hypertension	23.0%	26.1%	41.0%
Arthritis	23.6%	19.5%	33.8%
Pain/discomfort (mod. or severe)[4]	15.6%	7.5%[5]	39.9%
Mood disorder/depression[6]	6.3%	21%	28.4%
Substance use problems	20.6% (Heavy drinking only)	Alcohol: 5.5% Drugs: 2.9%	Diagnosed: 21.4%[7] Self-report: 45.4%
Anxiety	Ontario: 8.1%[8]	24.6%	26.9%
HIV/AIDS	Note 9	0.07%	0%
Hepatitis C	London: 0.39%[10]	0.9%	0.02%
Head injury	Canada: 0.4%[11]	7.2%[12]	10.5%

Note: "Health regions [such as the Public Health Unit] are administrative areas defined by provincial ministries of health according to provincial legislation" (Statistics Canada, 2013a) In this case, the County and the Health Unit appear to cover the same geographical area. However, one data source reports the population of Health Unit in 2011 as 131,513 (Statistics Canada, 2013a) whereas another source reports the 2011 population of the County as 126,199 (Statistics Canada, 2012a). Table statistics from: Statistics Canada, 2013b unless otherwise indicated. Canadian Community Health Survey – CCHS - *use with caution

[1] out of 2823 primary care clients

[2] self-reported during baseline EQUIP interviews, N = 125

[3] Public Health Agency of Canada, 2009

[4] CCHS "people who report they usually have pain"; EQUIP: scores of 3 or 4 on the Pain Grade scale

[5] clients diagnosed with encode "Chronic Pain" in Clinical records.

[6] CCHS includes major and minor, post-partum depression, bipolar disorder and seasonal affective disorder; EQUIP patient survey asks generally about "depression".

[7] 14.5% indicated the problem was medically diagnosed; Ps also asked if they felt they had a problem: 29.8% said yes.

[8] Data from the CCHS Mental Health supplement (2012) are available at the provincial level only.

[9] there is no direct comparator for the County from CCHS; a Ministry of Health and Long-term Care report put the total sero-diagnosed HIV cases in 2010 in the [region] of Ontario at 71 and the number of AIDS cases at between 8 and 724, depending on adjustments

[10] From Remis and Liu, 2011

[11] Data from the CCHS (2010-11) are available at the national level only.

[12] includes concussion diagnosis

APPENDIX C

Interview Guide

> "I'd like to gain an understanding of the Clinic Narrative from the perspective of those involved in creating it. You'll recall there are a couple of versions – the initial Narrative, which was the socio-political/historic account plus some data, and a more focused "Profile" which started to get to EQUIP intervention details and OIT planning; then we started adding data as requested.
>
> I'd also like to explore how the Clinic Narrative itself or the process of creating it has helped the clinic think through and even implement the tailoring of care toward more equity-oriented care."
>
> I'd like to audio-record today for my recall. I'll analyze what I transcribe looking for themes and patterns. I'll ask your permission if I want to use direct quotes. Responses are confidential but given the clinics' association with EQUIP anonymity is not possible. If you'd like me to stop recording please just say so.
>
> Would you read this letter of information and sign the consent form if you agree?"

1. I'd like to briefly revisit the mandate of the clinic. Could you go briefly over that with me again?

2. What are the top 2 or 3 main issues that the clinic is facing?

3. OK, let's talk about the Clinic Narrative Profile. First, please describe the process, from your perspective, of how and why it was created for the EQUIP project.
   - i. Was the process – in terms of the researcher and clinic contributions – appropriate? If not, what would you do differently?
   - ii. Has it been useful so far? (probe for utility specific to EQUIP intervention/OIT, and other uses)
   - iii. Have there been any challenges or potential limits or downsides to having a document like this?

4. Do you think there is anything missing in the narrative? If so, what? How have or would you modify it? For what purposes?

5. What are your thoughts on how it's presented (probe: the kinds of information, the order presented, the mix of text, images, graphs and tables, the format-hard copy etc.)?

6. Speaking specifically about whether and how the Narrative Profile has been used in EQUIP intervention planning and tailoring:

    a.   Was it considered at all in developing your OIT plan? If so, how?

    b.   Has it informed the changes in practice or policies at this clinic related to Equity oriented care? ? If yes, how so? If not, why not? (probe: who in the clinic has seen the narrative document?).

    c.   Thinking about the structure of the clinic here do you see any facilitators or barriers to using the Narrative Profile?

7. Does any thing else like this exist for the clinic (probes: training materials, data reports on client status, etc.)?

    i.   Do you know of any similar documents or reports in other clinical sites? (i.e., is this kind of thing familiar, or novel? how so?).

8. Thinking beyond the EQUIP study, how else could this type of document be used to address primary mandate of this clinic? (probes: reporting requirements to funders, CQI, staff training, public education about the clinic; promotion of services, etc.).

9. Is it feasible for the clinic to sustain this document, after the study ends? (probe: which aspects would you continue with).

    a.   What would need to be in place for this to happen?

10. Is there anyone else that has had some interaction with the narrative that I should speak to?

APPENDIX D

Codebook

Outer setting	This describes all that is outside of the clinic (both positive or negative pressures) that create the need for the health services provided in the way that they actually do deliver services or are expected to deliver services.	
	Patient Needs and Resources	The extent to which patient needs(as well as barriers and facilitators to meet those needs) are accurately known and prioritized by the organization.
	Peer Pressure	Competitive pressure to implement an intervention, or to implement it in a certain way. This might also include the degree to which clinics are networked with 'peer' organizations
	External Policy and incentives	External strategies to spread interventions including policy and regulations, external mandates, recommendations and guidelines.
	External Pressure-Disincentive	Anything perceived to work against the implementation of an intervention that will improve equity oriented care e.g as indicators that don't measure equity oriented care, programs that are perceived to not target equity care, duplication of services already provided, rostering, physician comp models that don't support equity
Clinic Inner setting		
	Structural Characteristics	the social architecture, age, maturity and size of the organization
	Networks and Communications	The nature and quality of: 1) formal and informal communications within the organization 2) webs of social networks
	Culture	Norms, values, and basic assumptions of the organization
	Implementation Climate	Capacity for change, shared receptivity of involved individuals to the CN and the extent to which use of the CN is rewarded, supported or expected within the clinic. Leadership involvement.
	Readiness for Implementation	Tangible and immediate indicators of organizational commitment to its decision to implement the CN
Intervention Characteristics		
	Sustainability of CN	Perceived endurance ability of systems and processes related to the clinic narrative
	Novelty	Perception of stakeholders' familiarity of this

		type of intervention
	Relative Advantage	Stakeholders perception of the advantage of implementing the CN versus an alternative solution (or maintaining status quo)
	Adaptability	Degree to which the intervention could be or was adapted, tailored, refined, or reinvented to meet local needs
	Design quality and packaging	Bundling, presentation and assembly
	Goal of the CN	Anticipated uses and goals of the narrative
	Co-development process quality	Tracking the communications (and characteristics of) and responses to the evolving nature of the CN between researchers, clinic leads and community partners. This process is not separate from implementation, it is implementation. Elements of early engagment helps in rolling out.
	Interfering Factors	Barriers to the intervention which includes both the process of co-developing or to the narrative itself.
	Representativeness	The degree of the fit between the elements of the narrative and the clinics' patient population
Use of CN	Instances of actually using the narrative, including unanticipated uses	

	Relationship Building	Direct or indirect instances where the CN (or the process of developing the CN) impacted relationships with community partners
	Funding	Instances where the CN or the process of developing it helped clinics advocate for funding, either directly or indirectly
	Validation for Staff	Direct or indirect instances where the CN (or the process of developing the CN) impacted staff in a way that demonstrates, proves or justifies the value of or truth behind the work they do with marginalized people.
	Organizational Development	Instances where the CN (or the process of developing it) helped the clinic develop organizational clarity through mission development or articulated policy development.
	Understand the Patient Population	Instances where the CN (or the process of developing it) was perceived to help the clinics know more about who their population is, what their needs are, what their thoughts are related to the care they receive at the clinic.

Reflections, Recommendations	Feedback about, experiences, the progress and the quality of implementation. Lessons learned to date.	

Curriculum Vitae

Name:	Christine Garinger
Post-secondary Education and Degrees:	Fanshawe College
	London, ON
	1991-1994 Diploma in Nursing

Athabasca University
Athabasca, AB
2009 Bachelor of Nursing

The University of Western Ontario
London, Ontario, Canada
2012-2014 Masters in Health Information Science.

Honours and Awards:

Deans Honour List, Athabasca University
2008

Related Work Experience

London ON

Research and Evaluation Lead & Clinical Team
mindyourmind, a program of Family Service Thames Valley,

2008-present

Teaching Assistant
The University of Western Ontario, London ON
2013

Crisis Counselor, Emergency Room and Community
LONDON MENTAL HEALTH CRISIS SERVICE, London, ON
November 2004-July 2008

Staff Nurse, Adolescent In-Patient Unit
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Staff Nurse, Young Adult In-Patient Program
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Publications:

Rasmussen-Pennington, D. M., Richardson, G., Garinger, C., & Contursi, M. L. (2013). "
     I Could Be on Facebook by Now": Insights from Canadian Youth on Online

Mental Health Information Resources/«Je pourrais déjà être sur Facebook»: points de vue de la jeunesse canadienne sur les sources d'information en ligne concernant la santé mentale. *Canadian Journal of Information and Library Science*, 37(3), 183-200.

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