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Continuity of Care and Shared Decision-Making in Interprofessional Collaborative Maternity Practices in Canada

Dorothy Anne M. Malott, *The University of Western Ontario*

Supervisor: Dr. Marilyn Ford-Gilboe, *The University of Western Ontario*

A thesis submitted in partial fulfillment of the requirements for the Doctor of Philosophy degree
in Health and Rehabilitation Sciences

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ABSTRACT

Problem: The number of maternity care providers varies across Canada. Women from rural communities or those marginalized due to physical, psychological or social issues including newcomers, often experience challenges accessing health care (Fraser Health, 2014; Rogers, 2003). Interprofessional collaborative maternity care [IPCMC] has been credited as a means of increasing access and promoting sustainability of services (Miller et al., 2012; Society of Obstetricians and Gynecologists of Canada, 2008).

Midwifery could play a greater role in delivery of services through IPCMC. However, little is known about collaboration in these practices. The purposes of this study are to explore factors influencing enactment of IPCMC and understand whether and how midwives can provide relational care in these practices in ways that are positively evaluated by women and staff.

Method: A qualitative multiple case study design was used to explore variations in 4 interprofessional collaborative models of maternity care in British Columbia, Canada. Sources of data included: one week observation at each practice; and semi-structured interviews with staff (n=40) and women receiving care (n=33). Thematic analysis was applied to interview transcripts, observational field notes and analytic notes.

Findings and Conclusions: Findings showed that collaborative care was well received by women when expectations were clear and continuity of information and philosophy were exercised. Contextual factors influenced model development and implementation requiring flexibility and adaptation over time. Extensive communication, organization, mutual respect and an overarching commitment were required to enable effective woman-centred, relational care. Policy change is required including a) broader definitions of continuity of care consistent with current literature; b) increased support for

involvement of midwives in IPCMC practices beyond pilot projects; and c) adoption of integrated funding models in order to reduce barriers to implementation. Increased interprofessional education at the learner and professional levels is needed to develop skills for effective interprofessional collaborative maternity care. These findings identify necessary changes in policies and preparation for collaborative practice required to sustain IPCMC practices.

Key words: Collaboration, Maternity Care, Midwifery, Woman- centred and patient-centred care, Informed choice, Decision-making, Continuity of maternity care, Continuity, Relational care, Multiple Case Study, Organizational theory.

CO-AUTHORSHIP STATEMENT

(Dorothy) Anne Malott performed the work for this dissertation under the supervision of Dr. Marilyn Ford-Gilboe, Dr. Anita Kothari and Dr. Karyn Kaufman who will be co-authors on publications resulting from Chapters two, three and four of this dissertation.

DEDICATION

This dissertation is dedicated to past, present or future recipients of care and supporters of woman-centred care who have worked with providers of varied disciplines, stake holders, and policy makers to ensure access to quality care that is close to home.

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I would like to acknowledge the support of my family, colleagues and advisory committee; without which this work would not be possible.

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To my parents, the late Robert McIntosh and Esther McIntosh, you encouraged your six children to pursue their individual interests in law, education, business and health care and celebrated their successes and differences unconditionally. Your modeling of community engagement and lifelong learning has had a profound effect on the work that I continue to undertake and I am truly a product of your loving upbringing.

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CHAPTER 1

INTRODUCTION, OVERVIEW AND REVIEW OF THE LITERATURE

Introduction

Midwifery is well integrated in many communities across Canada and the dominant model of care brings satisfaction to consumers and midwives alike. The model includes elements that are considered by governing bodies to be essential: continuity of care, choice of birthplace and shared decision-making. Narrow definitions of these tenets of care and strict requirements of governing bodies in some provinces limit the extent to which midwives can collaborate with other maternity care providers to increase their ability to meet the needs of diverse populations with unique needs. People with physical, psychological or social issues or those marginalized by poverty, geographic location or immigration status often experience difficulties accessing health care. The limits were originally included to provide time and attention in order to promote a more personalized model of care. However, we do not know whether or not these limits on care actually improve outcomes or are what women today want.

Although there is great interest among midwives in a more flexible model, and many are eager to explore new approaches to care, internal resistance within the profession exists. Some midwives fear that new organizational models could result in the loss of essential elements of the model, resulting in negative outcomes for women and their babies. However, we do not know what the essential elements of care are, particularly for diverse populations. A large literature exists in support of *continuity of care*, which is one of the philosophical tenets of the model, but how continuity is best provided remains in question. A 2008 Cochrane review found that the benefits of midwifery care were unrelated to continuity but attributed to the philosophy of care and

the trusting relationship that develops within midwifery care (Hatem, Sandall, Devane, Soltani & Gates, 2008). This begs the question of whether or not interprofessional groups, which share a common philosophical belief of birth as a normal life event and who prioritize woman-centred care and shared decision-making, could have similarly positive outcomes.

The purpose of this study was to explore the factors influencing how collaborative care is organized and enacted and understand how midwives can provide relational care in interprofessional collaborative maternity care teams in a way that was positively evaluated by consumers and staff. This multiple case study was designed to examine four existing collaborative models involving midwifery care, which varied from “traditional” midwifery in Canada in an effort to understand the extent to which these models were *woman-centred*, included *continuity of care*, emphasized the client as decision-maker, and incorporated autonomous midwifery practice. The practices varied in approach to care (either individual or group care) and the extent to which collaboration or interdisciplinary practice was employed. The perceptions of consumers, caregivers, administrators and program planners were explored with attention to degree of satisfaction with regard to woman as decision-maker, the extent to which continuity of care was provided and the degree of professional autonomy within the model. Facilitators and barriers to collaboration were examined. Motivators for initiating the model were also sought in order to attempt to understand what prompted the development of each program and whose needs the program sought to meet. Information from this health service research enhances understanding regarding women’s experiences of collaborative care and what elements of care are most important to them.

This dissertation has been organized into five chapters. This introductory chapter identifies the purpose of the study and outlines where specific aspects of the study will be addressed. It provides historical analysis to situate the problem in light of past and current midwifery practice and a review of the literature related to the problem to substantiate the need for better understanding as well as research questions that will be addressed. Chapters 2, 3 and 4 provide findings related to the characterization of the models, structures and processes of care, how continuity is enacted within the models and the barriers and facilitators to effective collaboration. These are prepared as publishable manuscripts consistent with an integrative manuscript approach; therefore, the study method, elements of design and sampling are included in each. These elements are somewhat repetitive to ensure each can stand-alone. Chapters 2 and 4 address characteristics of the collaborative practices studied and what promotes or inhibits their functioning, where chapter 3 explores the ways continuity is enacted within them a means of reaching relational care. Chapter 2 is intentionally more descriptive in nature to bind the cases, consistent with case study methodology and chapter 4 focuses on application as it addresses sustainability of these models of care. The organization of chapters is intentional since content related to facilitators and barriers to collaborative care in chapter 4 builds on the structures and processes identified in chapter 2 and notions of continuity in chapter 3 with consideration of broader definitions of continuity and appreciation of congruence with critical elements of the usual model of midwifery in Canada. Chapter 5 synthesizes the analysis, identifies key findings or main messages discovered in this work, discusses implications and provides recommendations for future research.

For the purposes of this dissertation, I will talk about recipients of care and pregnant people as women. Use of this term is not intended to be exclusive. I

acknowledge that not all pregnant people identify as women consistent with professional midwifery statements (Canadian Association of Midwives [CAM], 2015) and use of the term is solely for ease of writing since the discussion of inclusive language is ongoing and an agreed upon language has yet to be reached.

Background

Maternity Care in Canada

For over a decade, maternity care in Canada today has been described as being in a state of crisis (Chan, Willet, 2004; Pearse, Gant & Hagner, 2000). Fewer family physicians are providing intrapartum care; they cite concerns regarding lifestyle and fear of litigation as key reasons (Goodwin, Hodgetts, Seguin & MacDonald, 2002).

According to the National Physician Survey, in 2010 only 10.5 % of family physicians across Canada attended women in labour, which dropped from 15.7% in 2001 (College of Family Physicians of Canada [CFPC], 2010; CFPC, 2001). The decline is most notable in Ontario where only 6.0% of family physicians provide intrapartum care (Ontario College of Family Physicians [OCFP], 2006). This has resulted in very limited clinical mentorship and a subsequent withdrawal of obstetrics as a curriculum requirement within family medicine programs (OCFP, 2006). With limited or no exposure during their residency, fewer family physicians are choosing to deliver babies as part of their practice resulting in a falling number of providers (Buske, 2001). Rural providers face fears of hospital closures, lack of peer support and stress related to on call demands with little relief (Klein, Christilaw & Johnston, 2002). Low birth numbers and solo practices and reduced access to operative birth and specialist support affect sustainability of maternity providers in rural communities (Stoll & Kornelson, 2014). Women in these communities have little choice and may in fact need to travel outside their communities to access

obstetric care resulting in added emotional, social and financial stress (Rogers, 2003; Chamberlain & Barclay, 2000).

Recent surveys indicate that there are almost 2000 obstetricians in Canada, with 778 in Ontario and 262 in British Columbia (BC) (Canadian Medical Association [CMA], 2015). This number has increased from 1370 in 2008 (Society of Obstetricians and Gynecologists of Canada [SOGC], 2008). According to a 2008 human resource survey, 48% of the Canadian obstetricians who responded attended 200-400 births per year (SOGC, 2008). Relying on obstetric specialists to provide primary care to women of low-risk may not be the best use of expertise particularly when demand for their skills and knowledge results in delays in access to consultants for patients experiencing complicated pregnancies (SOGC, 2008).

When first introduced in Ontario, midwifery was positioned as an alternative to physician care (Boscoe, Basen, Alleyne, Bourrier-Lacroix & White, 2004; Bourgeault, Benoit & Davis-Floyd, 2004) for people experiencing low risk pregnancies. Since regulation in 1994, the number of midwives in Ontario has grown from 65 to approximately 800 (CAM, 2016a). Since 2011 there have been nearly 100 new graduates each year, which means even more rapid expansion of the profession (CAM, 2016a). Midwifery became regulated in BC in 1998 and there are now almost 300 midwives registered in that province (CAM, 2016a). In total, there are approximately 1500 registered midwives in Canada (CAM, 2016a) with regulated midwifery in all jurisdictions except Prince Edward Island and the Yukon Territory (Malott, Murray Davis, McDonald & Hutton, 2009). Recent announcements of regulation in Newfoundland (House of Representatives, 2016) and New Brunswick are leading to actual registration of midwives (CAM, 2016a).

Midwifery is growing and the demand for midwifery exceeds the supply in every province. In BC midwives attended over 9,000 women or 21% of all births in the province in 2015-16 with a goal to increase attendance to 35% of all births in 2020 (Midwives Association of British Columbia [MABC], 2016). In Ontario, midwives attend 15% of pregnant women, an increase from 9.1% in 2008 (CAM, 2016a). In many ways, midwifery care, although once considered alternative, has become mainstream.

Midwifery is funded differently across the country but in provinces where midwives are paid per client, the number of clients is restricted. This limits their ability to expand the provision of maternity services. If essential services are to be provided by midwives, the model of care needs to be flexible enough to serve more women. This position has been promoted in policy documents (Ontario Maternity Care Expert Panel [OMCEP], 2006) with an emphasis on promoting collaborative care models but very little research has examined the outcomes of collaborative models. In particular, very little Canadian research has examined the merits of different models of midwifery care (Harris, Janssen, Saxell, Carty, MacRae & Petersen, 2012; Malott et al., 2012). International studies have compared models that include various types of continuity of care and team-based midwifery but very limited information exists regarding interprofessional teams involving midwives (Hattem et al., 2008; Brio, Waldenstrom, Brown & Pannifex, 2003; Sandall, Hattem, Devae, Soltani & Gates, 2009; McCourt, Stevens, Sandall & Brodie, 2006; Green, Renfrew & Curtis, 2000; Flint, Poulengeris & Grant, 1989; Rowley, Hensley, Brinsmead & Wlodarczyk, 1995; Hundley, Milne, Glazener & Mollison, 1997; Tinkler, Quinney, 1998; Waldenstrom, Turnbull, 1998; Rosenblatt et al., 1997; Hundley et al., 1994; Homer, Davis, Cooke, Barclay, 2002; McCourt, Page & Hewison, 1998; Walsh, 1999; Johnson, Stewart, Langdon, Kelly & Yong, 2003; Fellowes, Horsley

& Rochefort, 1999).

History of Midwifery in Canada. Canadian midwives are autonomous primary maternity care providers for clients and their infants throughout pregnancy, birth and for six-weeks postpartum (Canadian Midwifery Regulators Consortium [CMRC], 2016c). They promote normal physiologic birth with appropriate use of technology (CAM, 2010a). They promote wellness through education and support integrating social and cultural aspects of the patient's life into care that is individualized and meaningful to the woman and her family (CMRC, 2016a).

The initial midwifery model was based in great part on the way midwives practice in The Netherlands and New Zealand where choice of birthplace and shared decision-making are fundamental tenets of care (Malott et al., 2009). The regulation of the profession in Canada was driven by the women's movement in the 1970s when birth was being medicalized and maternity care did not reflect choice or control for women (Boscoe, Basen, Alleyne, Bourrier-Lacroix & White, 2004). Prior to regulation, the Ontario Ministry of Health undertook a study assessing the need for and best approaches to midwifery, which resulted in the Report of the Task Force on Implementation of Midwifery in Ontario (Eberts, Edney, Kaufman & Schwartz, 1987). Evidence from international models of midwifery was reviewed and input from consumers and midwives was incorporated and the final recommendation included an evidence based model that made the consumer central to decision making and where continuity of care was a critical element (Eberts, et al., 1987). Continuity of care in this context was defined as care provided by a small group of midwives with 24/7 on call availability (Ontario Midwives, 2016). The evidence in support of having a known primary care provider is strong (McLachlan et al., 2008; McLachlan et al., 2012; Waldenstrom & Turnbull, 1998).

Continuity of care has been associated with increased patient satisfaction as well as improved birth outcomes (McLachlan et al., 2008; McLachlan et al. 2012; Waldenstrom & Turnbull, 1998) and therefore continues to be critical in the midwifery model today. Respecting this history is important in appreciating how midwifery began in Canada, why the elements of the model were first included and why their preservation is important. However, we do not know whether the benefits of care stem from midwives per se or from having continuity of known providers (Hattem et al., 2008).

Evaluations of the Current Model of Midwifery Care. Evaluations of midwifery care in Ontario and British Columbia have been favorable with good outcomes related to mode of delivery, maternal and fetal wellbeing. An Ontario study comparing birth outcomes of 6,692 low-risk patients who were attended by midwives and planned a homebirth matched with a group of consumers attended by midwives planning a hospital birth between 2003 and 2006 (Hutton, Reitsma & Kaufman, 2009). Perinatal and neonatal mortality was very low for both groups (1/1000) and there was no difference in these rates between the groups (Hutton et al., 2009). No maternal deaths were reported in either group and maternal morbidity and the rate of cesarean section were both lower in recipients of care planning homebirth (Hutton et al., 2009). A similar study in British Columbia compared the outcomes of planned home births from January, 2000 to Dec, 2004 attended by registered midwives with those planned hospital births attended by the same midwives or physicians (Janssen, Saxell, Page, Klein, Liston & Lee, 2009). Included were all planned home births (n=2,889); all planned hospital births meeting the home birth requirements that were attended by the same group of midwives (n=4752); and a matched sample of physician-attended planned hospital births (n=5,331). Perinatal morbidity and mortality were low in all groups but lowest in the consumers planning

home birth. People in the home birth group were also significantly less likely than both groups of women planning hospital births to experience obstetric interventions, or maternal mortality including postpartum hemorrhage (Janssen et al., 2009). The similarity of findings in these studies provides evidence of the safety of home birth and midwifery attended birth in either home or hospital settings in Canada (Hutton et al., 2009; Janssen et al., 2009).

Critique of the Current Model of Midwifery Care. The approach to providing midwifery care in each province reflects fundamental beliefs consistent with the model; however, some differences exist in how midwifery is legislated and practiced across Canada (CMRC, 2016b). Regulatory bodies and midwives alike value the principles of continuity of care and choice of birthplace. However, specific requirements to demonstrate adherence to these principles vary among provinces (College of Midwives of British Columbia [CMBC], 2013a; CMO, 2015; Midwifery Regulatory Council of Nova Scotia [MRCNS], 2009). Flexibility in how midwifery is implemented in some jurisdictions helps meet the needs of diverse groups of consumers and maximize the role of midwives in maternity care (Malott et al., 2012; MRCNS, 2009).

In the usual model of care, only the midwifery group sees patients unless a pre-existing medical condition or a complication of the pregnancy or postpartum period requires consultation (CMO, 2000). This element of the model is not based on evidence but was included in the model at a time during the women's movement when women were seeking care that was woman-centred and not influenced by the medical model (Bourgeault, et al., 2004). Midwives were sought for their difference. Midwives were seeking to establish themselves as autonomous care providers independent from nursing or medicine so integration into the medical system was not desired at the time

(Bourgeault et al., 2004). Over the past 20 years women have become active participants in many sectors of the health system making the need for alternative care less acute. The benefits of integration and collaboration have become increasingly apparent as a means of promoting seamless care as consumers engage in the system through their birthing experiences.

Multiple provincial and national level reports have identified the benefits of collaborative models in promoting sustainable maternity care that is more accessible (Hutton, Farmer & Carson, 2016; Miller et al., 2012; OMCEP, 2006; SOGC, 2006; SOGC, 2008). Interprofessional collaborative models of care fit well with the principles of primary care reform (Health Canada, 2012a) aimed at increasing access. However, without evaluation of these interprofessional models we cannot substantiate their claimed benefits.

Women have diverse needs and preferences that may influence the model of maternity care in communities. In rural or remote settings where care is not readily available consumers may be prioritizing essential services rather than focusing on continuity of caregiver. Sustaining maternity care in communities is important on a number of levels. It contributes to economic development of the community since new young families are less likely to settle in a community where full health services are not offered (Miewald et al., 2011). The cultural meaning of birthing in one's community also contributes to development of social relations and social ties within the community (Miewald et al., 2011; Miller et al., 2012). Efforts are being made to keep maternity care in rural and remote communities. In some regions specialty services are not available and birth numbers are low because the population is dispersed over vast geographic areas. Having a broad or expanded scope better serves the community since fewer caregivers

are available (Malott et al., 2012). General Practitioners in rural communities have addressed the provider crisis with additional qualifications in expanded surgical services (Iglesias et al., 2015; Kornelson, Iglesias & Woollard, 2016) and in some settings expanded scope for midwives includes instrumentally assisted births, well woman gynaecologic care, family planning or public health education (Malott et al., 2012; Rogers, 2003). In a different example, women with complex social, psychological or physical needs who may be marginalized by a physical condition or by immigration or socio-economic status could be better cared for in a model that encourages social support and collaborative care from a team of caregivers (Fraser Health, 2013). Recognizing these different needs offers an opportunity to critique the present approach and consider how midwifery can best contribute to promoting the health of childbearing people and their families.

The model of midwifery most commonly practiced in Canada presents issues for consumers and issues for midwives. It inhibits the expansion of midwifery services because governing bodies limit the maximum number of clients midwives can care for. This restricts access to essential services when the midwives have met their caseload limits and are unable to take on more clients. Governing bodies also often require a minimum number of homebirths to maintain registration. This effectively results in needing a greater number of midwives to serve fewer clients since they are in individual homes at a distance from each other and are spending time traveling. Midwives in home settings are not usually working collaboratively with nurses during labour and birth yet must ensure that a second midwife or birth attendant be present for the birth which further taxes limited human resources.

Attrition from the profession is a growing concern. Cameron (2011) conducted a qualitative study of midwives in Ontario who left the profession. Among other reasons were the inability to balance work-life demands and the desire for increased off-call time (Cameron, 2011). Collaborative models with interprofessional shared care and support for off-call time could offer opportunities for sustainable maternity care reducing attrition rates of midwives as well as other maternity care providers. Evaluation of satisfaction of all caregivers in collaborative care models is needed to determine if this is a desirable solution.

Midwives have expressed their desire for more flexible practice structures that meet the requirements of governing bodies. In turn, these bodies are aware of the desires of midwives and recognize the need for flexibility (CMO, 2009b) that would enable more opportunities for midwives to engage in collaborative practice. With support from provincial and national leaders, midwives are in a position to engage in creative organizational models designed to increase access to care while supporting caregivers and influencing sustainability of maternity care services. In areas such as Nova Scotia where the model is less prescriptive this has evolved naturally. Regulators intentionally did not define requirements for practice to avoid limiting approaches to organization of care (Malott et al., 2012). In jurisdictions where the model is more prescriptive such as the central and western provinces, governing bodies recognize that there is interest in alternative organizational models and they review applications for alternative models of care for specific populations (CMBC, 2013b; CMO, 2009a; CMO, 2009b). In BC there are efforts to support rural and remote practices through collaboration and the professional association has engaged government for provincial funding to increase the impact of midwifery (MABC, 2016). However, this process has been slow to develop

due to concern that in alternative models, specifically those that include interprofessional collaborative care, the key elements of the model might be lost. These elements include continuity of care and woman-centred decision-making.

There are examples across Canada of promising innovative approaches to organizing care. In British Columbia (BC) an interprofessional team has successfully implemented group prenatal care to support consumers with high social needs as they transition to parenthood (Harris, et al., 2012). This is the only collaborative model in Canada to date that has been systematically evaluated. At the time of data collection three other interprofessional collaborative maternity care practices existed in BC but had not yet been evaluated. One program was based on a partnership between physicians and midwives where support and mentorship enabled midwives to care for a more complex population (Fraser Valley Maternity Group, 2014); a second was designed to provide care to a diverse population using a model that encouraged social support through group care (Fraser Health, 2013); and the third evolved to unite midwives and physicians in the care of consumers in a small town/rural area where continued maternity services were at risk (AppleTree Maternity, 2014). These unique approaches demonstrate an understanding of the needs of the population being served in the planning and delivery of health services that are appropriate and meaningful while maximizing the resources available.

Collaboration

Collaboration in general is defined as a process that occurs between individuals with shared values and services working together toward a common goal (Axelsson & Axelsson, 2006). It requires a commitment to maximizing the contributions of each member resulting in action that is greater than the sum of each individual's work (Evans, 1994). Collaboration necessitates clear communication, active listening and the ability to

negotiate options (Ahmann, 1994; Coeling & Wilcox, 1994; Vautier, & Carey, 1994).

Other key behaviours for effective collaboration include accountability, competence and assertiveness (King, Lee & Henneman, 1993). Collaboration occurs between individuals and therefore each member of a group must be committed to investing time and energy to develop the working relationship and overcome barriers.

In health care no one provider or profession can do it all. They cannot provide care continuously and must share a call schedule with other providers or, because of limitations in their scope or the expertise they bring to patient care, they must rely on the integrated knowledge and work of others (Pike et al., 1993). There are many different meanings of collaboration. In clinical practice this might look like professionals working together and referring patients to each other with written or verbal communication that facilitates the development of a collective plan, yet one member is the lead provider responsible for coordinating care. Alternatively, different providers might share care equally with a shared responsibility for coordination. Within this study, collaboration always refers to interprofessional collaborative maternity care where providers share values, beliefs and goals related to the provision of woman-centred maternity care.

Interprofessional collaborative care has been researched in a variety of models and settings internationally and is credited with cost savings and reduced length of stay (Brita-Rossi et al., 1996; Chimner & Easterling, 1993; Kearnes, 1994; Payne & King, 1998). It also has the potential to improve quality of care. A recent examination of midwifery care confirms that the best maternal and perinatal outcomes result when midwifery care is provided in collaboration with other professional providers who have respect the unique skills of each member of the team (Renfrew et al., 2014). The value of varied perspectives has been well established. Working in isolation with a uni-professional

perspective has been shown to reduce the ability to problem solve, consider other approaches to care, give and receive support and participate in continuing education activities (Pike et al., 1993). Clients have indicated satisfaction with interprofessional collaborative care when there was consistency in philosophy across the team and where models were patient-centred (Pike et al., 1993; Swan, 1993).

Facilitators and Barriers to Collaboration. Collaboration between care providers can increase the capacity of the healthcare system by using the skills and attributes of group members from different professions to their maximum potential. However, barriers such as professional competition, educational differences, lack of understanding of roles, ineffective communication, gender issues, hierarchical relationships, social class, and economics do exist (Sheer, 1996; Stapleton, 1998). Structure, liability issues, interdisciplinary rivalry, philosophical differences and lack of mutual respect further obstruct collaboration (OMCEP, 2006; Peterson, Medves, Davies, Graham, 2007; Smith et al., 2009; SOCG, 2006).

Clear communication and practice protocols and policies that define roles and scope of practice facilitate comprehensive care in interprofessional collaborative maternity care models (SOGC, 2006). These policies explicitly outline management plans offering clarity and understanding among care providers, which has otherwise been a challenge for providers from different professions. This clarity and understanding builds confidence and trust that a standard of care will be maintained across the professional groups that is within the professional scope of practice of each member of the group reducing concerns related to litigation (SOGC, 2006). Midwifery regulatory bodies set out the scope of practice dictating when consultations and transfers of care are required. Practicing within the scope of the profession and having professional liability insurance

protects members in collaborative practice. However, trust is an emotional response that needs to be developed over time in a supportive working environment where the contributions of group members are valued (Peterson et al., 2007).

Policy Directives

Primary health care reform stimulated the development of several reports in the mid 2000's examining the maternity care human resource crisis at both the provincial and federal levels (OMCEP, 2006; OCFP, 2006; SOGC, 2006; SOGC, 2008). Midwifery is regulated at the provincial level however macro-level national policies also have an impact and provide context. Provincial level policy directives must therefore be considered in the context of national projects. These reports address factors and identify barriers that have the potential to shape interprofessional collaborative maternity care [IPCMC] practices. They promote IPCMC as a strategy for improving access to sustainable services in more communities; outline how a shift away from fee-for-service opens up opportunities for collaborative care; and discuss how the health care quality agenda has prompted continual awareness of how quality improvement enhances accountability of health care practitioners (Campbell, Braspenning, Hutchison & Marshall, 2002).

At the national level, the Multidisciplinary Collaborative Primary Maternity Care Project (MCP2) was funded by the Federal Primary Health Care Transition Fund to reduce barriers and identify strategies to promote the implementation of multidisciplinary collaborative primary maternity care models that would address the human resource crisis in maternity care in Canada (Peterson et al., 2007). Like other reports, it identified regulatory issues and restrictions in scope of practice as barriers to interprofessional care (OCFP, 2006; SOGC, 2006). Key objectives of this federal initiative were to harmonize

standards and legislation between professional groups to enable interprofessional care and support the creation of collaborative practices (SOGC, 2006). This initiative resulted in the creation of a seven-module guide offering clear direction for moving theory to practice in support of changing practice patterns to promote collaboration (SOGC, 2006). The content of the modules is consistent with the literature on collaboration that stresses the need for group member commitment and emphasizes team building, effective communication and respect (Ahmann, 1994; Coeling & Wilcox, 1994; Smith et al., 2009; Vautier & Carey, 1994).

MCP2 provided a framework for a *National Birthing Initiative* addressing sustainability of maternity services in Canada (SOGC, 2008). The initiative was developed jointly by The College of Family Physicians of Canada, The Canadian Association of Midwives, The Association of Women's Health, Obstetric and Neonatal Nurses and The Society of Rural Physicians of Canada and arose from a commitment to reduce maternal and neonatal mortality and morbidity (SOGC, 2008). Although Canada has a reputation of quality health care these rates have worsened in recent years in comparison to other Organization for Economic Co-operation and Development [OECD] countries. These rates are attributed in part to later maternal age, increasing numbers of multiple births, health human resource shortages and inequitable access to services (SOGC, 2008). The report indicated that situations in rural and remote areas of the country are particularly concerning since restricted maternity services in those areas force women to leave their communities weeks before their due dates disrupting their families and destroying the local birth culture (SOGC, 2008). The initiative underscored the need for a national strategy that included recruitment and retention of providers in rural

communities and implementation of IPCMC as a potential solution to the human resource shortage (SOGC, 2008).

The *Joint Position Paper on Rural Maternity Care* was later produced in response to continued interest in promoting sustainability of maternity services in rural communities nationally (Miller et al., 2012). Contributors included The Canadian Association of Midwives, The Canadian Association of Perinatal, Women's Health Nurses, The College of Family Physicians of Canada, The Society of Obstetricians and Gynecologists of Canada and The Society of Rural Physicians of Canada.

Recommendations from the report reinforced the need for high quality care close to home that is woman or family-centred and respectful (Miller et al., 2012). The deleterious effects of lost maternity services on women, families and communities are especially pronounced for Aboriginal families where ties with the land, community values and a traditional birth culture are strong (Miller et al., 2012). The paper provides support for collaborative efforts including IPCMC practices as part of the solution for the human resource shortage and low number of births in these communities, and addresses the need for training of learners in rural settings and opportunities for continuing education of providers to maintain skills and competencies in maternity care (Miller et al., 2012). Support for recruitment, retention and continuing education of General Practitioner–Surgeons and General Practitioner-Anesthetists in particular is emphasized because this added training provides access to operative birth in small communities where there is no specialist obstetrician (Miller et al., 2012).

At the provincial level, BC adopted a *Primary Health Care Charter* aimed at creating an effective, accessible and sustainable health care system for residents of BC by 2017 (Ministry of Health BC [MOHBC], 2015). In support of working toward this goal,

the *Primary and Community Care in BC: A Strategic Policy Framework* was prepared to re-energize momentum initiated with the Charter (MOHBC, 2015). This discussion paper was created to consolidate initiatives and policies that result from efforts to improve both primary care and home and community care (MOHBC, 2015). Maternity services are included in primary and community care services with options for care by general practitioner, obstetrician or registered midwife (MOHBC, 2015). The document, consistent with reports noted above, emphasizes patient-centred, integrated and comprehensive care that focuses on health promotion aimed at reducing fragmentation of health services. (Miller, et al., 2012; MOHBC, 2015; OMCEP, 2006; SOGC, 2008). Initiatives and policies outlined within the discussion paper are based on the assumption that every woman in BC should have equitable access to high quality, timely, woman centred, primary maternity care, that is close to home, a position also consistent with other reports (Miller, et al., 2012; MOHBC, 2015; OCFP, 2006; OMCEP, 2006; SOGC, 2008). Concerns about access to rural maternity services echo those reported by Miller and colleagues (2012) and, similar to other reports, IPCMC is supported as a means of increasing access (Miller, et al., 2012; MOHBC, 2015; OMCEP, 2006; SOGC, 2008)

Relevance to Health Promotion

Examining existing interprofessional collaborative maternity care practices provides an opportunity to learn how interprofessional groups provide low risk primary maternity care with a focus on promoting health and access to services that are equitable and contextually appropriate. The Alma Alta Declaration (1978) identifies primary health care as care that is responsive to local community needs (WHO, 1986; WHO, 2006). It reduces health inequalities through accessible, continuous and comprehensive care to patients in their own context (Starfield, 2012; WHO, 2006). The Ottawa Charter

for Health Promotion (1986) builds on these principles specifying fundamental prerequisites for health such as shelter, education, food, sustainable resources and social justice aimed at promoting equity and health for all (WHO, 1986). Primary care teams contribute to primary health care and health promotion through provision of comprehensive care with access to internal consultation reducing the need for specialist involvement. They attend to local needs consistent with indicators of quality of care (Campbell, Roland & Buetow, 2000). Understanding how woman-centred care, shared decision-making and continuity of care are enacted in interprofessional collaborative maternity care practices and how the practices aim to provide equitable access to services is consistent with health promotion and health services research and in keeping with the directives of primary healthcare reform (Romanow, 2002). Developing this understanding is important in all populations, however health promotion services for rural women in particular receive very little attention in the literature underscoring the importance of including rural populations in this examination (Leipert, 2005).

The Knowledge Gap

Limited information exists about how collaborative practices provide woman-centred care or whether or not collaborative models can promote shared decision-making. Although team-based midwifery care and team-based care have been evaluated, only one Canadian evaluation of an interprofessional team including midwives exists (Harris et al., 2012). Researchers found that despite having the potential to receive care from a larger number of caregivers than is typically the case in Canada patients benefited from the consistency of philosophy among team members contributing to high degrees of satisfaction among participants (Harris et al., 2012). Exploring how continuity can be maintained in different settings when consumers are potentially exposed to a larger

number of caregivers and determining whether or not there is satisfaction particularly related to engagement in the decision-making process are important considerations in order to advise similar interprofessional collaborative practices in a way that promotes sustainability while maintaining consumer satisfaction.

Numerous studies exist involving nurse or nurse practitioner-physician collaborative models. They address issues similar to those faced by midwives and provide informative lessons learned. An examination of these models as well as international interprofessional collaborative practices that include midwifery may help address some of these issues and may help us understand who is best served by interprofessional collaborative, team based care and the role midwifery as a profession can play in these interprofessional teams. In order to provide context I will first describe woman-centred care in general then address specific key concepts of shared decision-making and continuity of care as they relate to woman-centred care.

Review of Literature

Searches of CINHAL, EMBASE and Pubmed on MeSH terms and key words of woman and patient-centred care, informed choice, decision-making, and continuity of maternity care between 1993-2013 then updated to include 2013-2016. Many had overlapping key concepts and were duplicated across databases. Attention was given to those addressing maternity care situations. Reference lists of these articles were hand searched for additional sources. Literature describing midwifery and various approaches to care is included to provide a context for the key elements of continuity of care and shared decision-making. These concepts are intertwined with woman-centred care since continuity is thought to allow increased time contributing to relationships that respect personal wishes. Centering the woman in her care involves sharing information that enables decision-making, further exemplifying how these concepts are interwoven. The literature related to each concept will be reviewed separately.

The W-C3 conceptual framework (figure 1) created for this study is built on the foundation and continual influence of social, political, geographic and historic context where the woman is centred and all interaction is aimed to meet her needs. Continuity of care enhances shared decision-making as much as shared decision-making influences the continuity of the relationship between the patient and the care providers. Both concepts contribute to the development of a trusting relationship with a focus on the woman and commitment from the team to ensure that client information is shared and the plan of care reflects the patient's wishes.

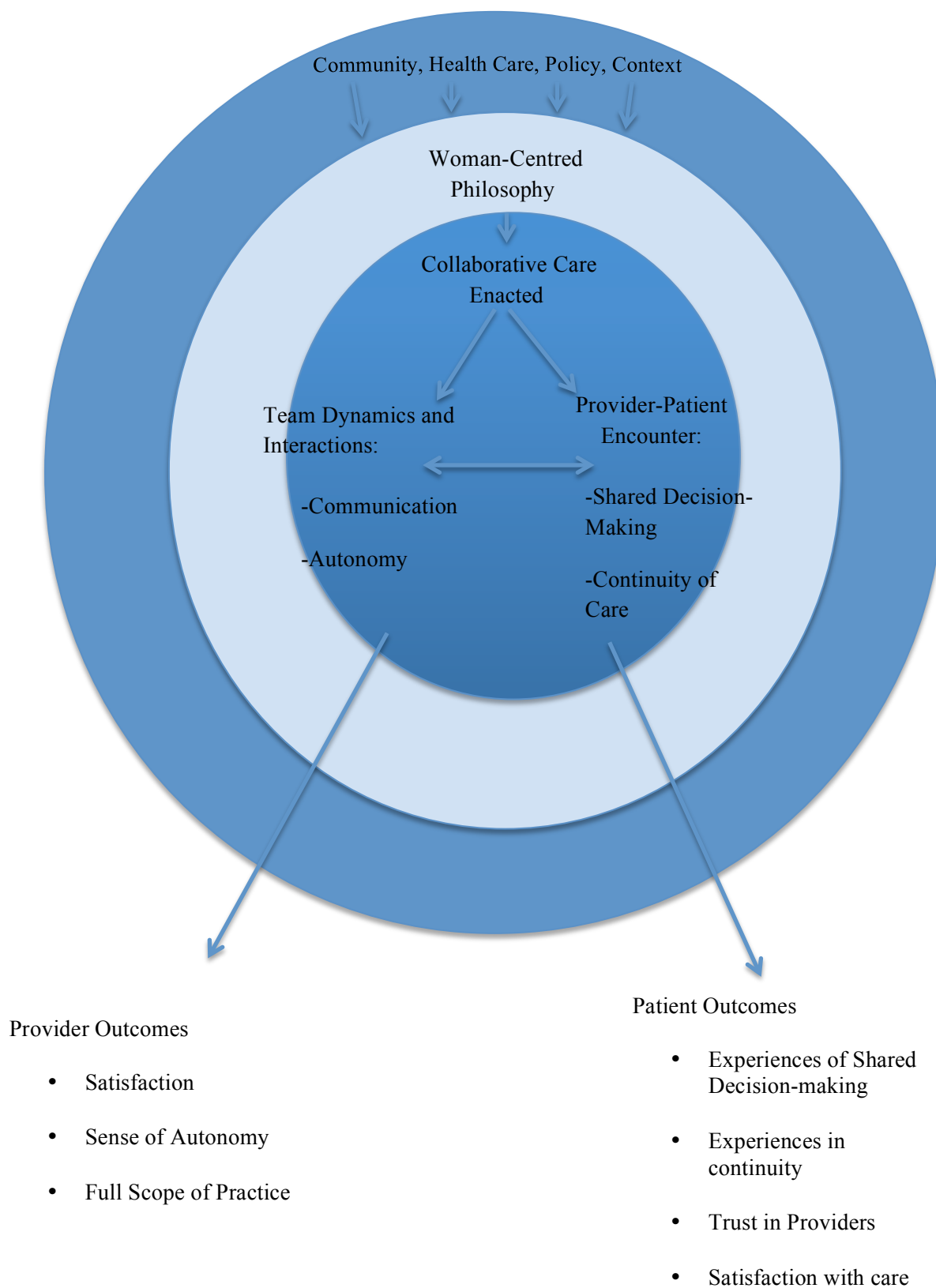


Figure 1. W-C3 Conceptual Model

Woman-Centred Care

Woman-centred care is defined as care centred on the needs and choices of individuals and families (NHS England, 2013). It must be accessible, continuous, comprehensive and coordinated (Starfield, 2011). Midwifery was founded on the woman-centred ideology and core belief that the pregnant woman is central to her care and therefore continually engaged and supported in decision-making (Van Kelst, 2013). Maputle et al., (2010) explored birth experiences of women receiving person-centred midwifery care in South Africa, citing key concepts and characteristics of the model that included mutual participation and responsibility-sharing, shared decision-making, information sharing and empowerment and open communication. Antecedents of person-centred care include open communication, respect and cultural sensitivity (Maputle & Hiss, 2013a). Evidence of the value of woman-centred models exists that indicates increased feelings of control, reduced anxiety and increased confidence (McLachlan et al., 2016). International reviews support the notion that woman-centred care is associated with good outcomes without high cost (Shaw et al., 2016).

Person-centred care as a core belief is shared by medicine and nursing. International nursing standards reflect the importance of placing people at the centre of care in a way that helps them make decisions about care that are personally relevant (Manley, 2011). Individual patient circumstances affect what person-centred care means to patients (Perez-Merino, 2014). Emphasis on self-care and patient autonomy with informed decision-making is recognized as an essential basis for providing person-centred nursing care (Jackson & Irwin, 2011). A theory of conditional partnership according to Howarth and colleagues explains how person-centered care is influenced by relationships that develop between teams of providers and patients and how these

partnerships restore patient autonomy and self-care (Howarth, Warne & Haigh, 2014).

This grounded theory study generated understanding about person-centred care from the perspectives of patients with chronic pain and their teams of providers that underscores the importance of validation, belief and understanding of the patient experience in the provider-patient relationship.

The provider-patient relationship is highlighted in the literature on family physician care (Glass, 1996; Hudon, Fortin, Haggerty, Lambert & Poitras, 2011; Laine, Daidoff, 1996; Stewart, Brown, Weston & Freeman, 2003). Stewart et al. (2000) studied the impact of physician-led, patient-centered care on clinical outcomes and found that patient-centred communications were associated with perceptions of finding common ground in understanding the patient. This common ground refers to an understanding of the patient's concerns and agreement with a treatment plan that meets the needs of the individual rather than focusing on the caregiver's agenda. According to Levinson (1994) when the physician's agenda dominates an interaction, compliance with treatment and satisfaction with care are reduced.

The benefits of patient-centred communication are well documented. Positive perceptions were associated with greater satisfaction with care, improved mental health status and better recovery from ailments (Levinson, 1994; Rotter et al., 1997). Stewart and colleagues (2000) found that the relationship of perceptions of patient-centeredness with health implies a process through which caregiver-patient communication affects health by influencing patients' perceptions of being actively involved in their care. One explanation for these improvements is that active participation in care reduces anxiety and increases confidence that the physician understands the patient's complaints (Stewart et al., 2000). Patient satisfaction has long been identified as an indicator of quality care

(Dingman, 1999). The importance of relationship development and trust is foundational in patient-centeredness. Criteria that facilitate woman-centred practice emphasize interaction skills, power sharing and respectful relationships between patients and caregivers (Maputle & Hiss, 2013b). Mead and Bower (2000) explore a model that includes components of the physician-patient relationship based on the concept of patient-centred care. These components are like those that underlie midwifery care where the woman is a biopsychosocial being who shares in the responsibility of decision-making (Mead & Bower, 2000).

Shared Decision-Making

Patient-centered interactions promote participation in care and an active role in decision-making (Stewart et al., 2000). Participatory decision-making has been a philosophical tenet of midwifery care in Canada since its inception (CAM, 2010a, 2010b). Ensuring that consumers are central to their care through sharing of information and knowledge enables them to make decisions and choices that reflect their needs. The ability to maintain woman-centred care in an interprofessional collaborative model is an important consideration if shared decision-making is to be foundational to care. Understanding the extent to which existing collaborative care models address shared decision-making is important in determining the philosophical fit between professional groups working in collaborative practices and how active participation in decision-making can be preserved.

Shared decision-making (SDM) is described and promoted by many researchers as a model which involves collecting, interpreting and discussing information through multiple interactions until agreement is reached (Harding, 2000; Edwards, 2003; Freeman, Timperley & Adair, 2004; Murray, Charles & Gafni, 2006). The literature

concerning active participation in decision-making includes two concepts: decision-making and informed choice. The two are often confused or used interchangeably when in fact they are quite different (Noseworthy, Phibbs & Benn, 2013). SDM is considered a more interactive and dynamic process with informed choice as the ideal outcome.

In general, shared decision-making is considered desirable among recipients of health care services because it has a positive influence on health. According to Kaplan and colleagues (1996), SDM has been associated with patient satisfaction, adherence with a treatment plan and better health outcomes (Kaplan, Greenfield, Gandek, Rogers & Ware, 1996). Numerous studies found that choice and control in childbirth relate to greater maternal satisfaction and subsequent emotional wellbeing (Brown & Dietsch, 2013; Brown & Lumley, 1994; Gibbins & Thomson, 2001; Lavender, Walkinshaw & Walton, 1999; Proctor, 1998; Sandin-Bojo, Larson & Hall-Lord, 2008;). Little et al. (2001) found that women appreciate having their voices heard and prefer to engage in the decision-making process. Goldberg (2009) found that women report receiving information about maternity care options less often than they would like. Other authors report similar findings when women were not involved in decision-making (O’Cathain, Thomas, Walters, Nicholl & Kirkham, 2002). O’Cathain et al. found higher patient satisfaction when patients and caregivers shared decision-making styles. Goldberg (2009) reported similar findings connecting SDM with development of a trusting relationship and satisfaction with care. However, there are some inconsistencies in the literature. An evaluation of an intervention aimed to train practitioners in SDM techniques found that although communication behavior changed, patient satisfaction did not (Davis et al., 2003). Likewise, Mead and colleagues found that patient-centred behavior did not predict satisfaction (Mead, Bower & Hann, 2002). Both studies

concluded that maternal satisfaction is most influenced by a combination of shared decision-making, effective communication and development of a trusting relationship.

The extent to which women are involved in the decision-making process is influenced by many factors. These include beliefs, attitudes and preferences of the woman and the practitioner, the nature of the situation in which the care is being delivered as well as the social, political, economic or cultural environments (Cooke, 2005; Sullivan, 2006). Women's attitudes and beliefs influence whether or not they value participation in decision-making. Women perceive birth as either a normal natural process or as a medical condition with risks (Fenwick, Hauck, Downie & Butt, 2005). They see themselves as recipients of care delivered by specialists or as experts in their knowledge of self. They often seek caregivers who share their beliefs. Women cared for by midwives are more likely to value participation in decision-making (Jimenez, Klein, Hivon & Mason, 2010).

Caregivers from different professions have different attitudes toward the use of technology and interventions (Reime et al., 2004). Obstetricians are more likely to offer cesarean birth without medical indication, epidurals in early labour and induction of labour as soon as possible where midwives are least likely to offer these and family physicians were in between (Reime et al., 2004). Obstetricians are least likely to encourage women to prepare a birth plan and engage in decision-making compared to the other two professional groups (Reime et al., 2004). However, decision-making is not always considered a priority for women in physician-led care if the providers are perceived as experts and control is given to perceived expert caregivers (Jimenez et al., 2010).

Increasing concern about risk has led to the medicalization of birth and use of technology as the norm (Davis, 2003). The current health care system continues to be based on a paternalistic model where the authority of the physician is seldom questioned. The American College of Obstetrics and Gynecology (ACOG) recognizes this as being problematic (ACOG, 2011). Roter (2000) and Murphy and colleagues (2001) agree that enhanced patient-caregiver relationships offer better experiences over paternalistic models (Murphy, Chang, Montgomery, Rogers & Safran, 2001). Saba et al. (2006) studied interactions involving 18 patients and their physicians in three clinic settings. Experiences of partnership in decision-making were examined and like Mead et al. (2002) and Davis et al. (2003), these authors found that relationship factors of trust and power as well as communication behavior influenced experiences of partnership (Saba et al., 2006). They concluded that engaging the patient in the relationship and soliciting their views on satisfaction with the process encourages development of trust. They further discovered that eliciting and offering more information through effective communication behavior is equally important in relationship development (Saba et al., 2006).

In a shared decision-making model decisions are made mutually. The practitioner brings knowledge and skills to the discussion and the woman brings their preferences, self-knowledge and experience to the encounter (Noseworthy et al., 2013). Continuity of care allows for time to collect, interpret and discuss information and to develop a trusting relationship, which may promote understanding of information and context (Harding, 2000; Edwards Elwyn, Smith, Williams & Thornton, 2001). Noseworthy et al. described the value of a relational decision-making model as one that extends beyond the midwife-woman relationship to include socio-political, cultural and experiential contexts that

influence shared decision-making (Noseworthy et al., 2013). In this study of 8 midwife/woman pairs, pre and post birth interviews revealed that participants were embedded in a series of connections. The authors found that ontological characteristics arising from cultural, social and political experiences influenced the development of relationships and consequently the decision-making process as much as the protocols, procedures and clinical experiential context of the midwife (Noseworthy et al., 2013). Among other factors, socio, political and cultural influences include the organization of care within a practice, the dynamics of the local hospital, the culture of birth including the extent to which birth is medicalized, provider shortages, funding issues, poverty and cultural expectations related to how, where and with whom women should birth. According to Noseworthy et al. (2013) all of these factors influence how decisions are made and how involved women are in the process.

Centering women in their decision-making contributes to relational care by recognizing them as experts in their own care and valuing and supporting the choices they make. A theory of relational coordination according to Gittel (2006) proposes that interdependent work is most effective when there are shared goals, shared knowledge and mutual respect. These aspects of relational coordination extend to relational care through patient-provider interactions founded on shared goals of optimal clinical outcomes, informed and shared decision-making and mutual respect of the expertise of the provider with clinical understanding and the woman with an expert appreciation of her own context (Gittel, Godfrey, Thistlethwaite, 2013). Relational care is facilitated by continuity that promotes feelings of being known but there are different approaches to how continuity is enacted.

Continuity of Care

There is a huge literature addressing continuity of care in different settings within health care. There are 3 types of continuity including continuity of information, continuity of management and relational continuity (Haggerty, Reid, Freeman, Starfield, Adair & McKendry, 2003). Informational continuity includes medical records or documents that provide context for the clinical situation. Management continuity gives direction to care through protocols, standards and care pathways that indicate who is responsible and how care is coordinated. Relational continuity is established through ongoing contact consistent with continuity of care provider allowing for development of a trusting interpersonal connection (Haggerty et al., 2003).

The definition of continuity across maternity care studies differs making it difficult to compare data (Sandall, Hatem, Devae, Soltani & Gates, 2009). The term is commonly used within the midwifery profession to mean care by a small number of midwives (Brown & Dietsch, 2013; Johnson et al., 2003). However, the benefits of ‘midwifery-led continuity models’ have been reported without including a definition of continuity or the number of providers involved in care (Perriman, & Davis, 2016) and debate remains about an ideal definition. According to the National Institute for Health and Care Excellence (NICE) guidelines, continuity should be care by a small number of providers who are known to the patient in order to promote development of a trusting relationship (National Collaborating Centre for Women’s and Children’s Health, 2008). Continuity can refer to care provided by one person or to a philosophy of care provided by a group. The term continuity of carer refers to having a consistent caregiver or pair of caregivers who are responsible for organizing and planning care and who attend the women in the intrapartum period (National Collaborating Centre for Women’s and Children’s Health, 2008). It can be described as individual care or by the term ‘caseload

midwifery' (McCourt et al., 2006; Sandall et al., 2009; Waldenstrom & Turnbull, 1998; Green et al., 2000). Continuity refers to the relationship that develops over time with a small number (usually 2-3) of providers. The relationships that develop over time with continuity of caregivers are credited with increasing access and safety by reducing fragmentation that can lead to gaps in care (Cook, Render & Woods, 2000; Sandall et al., 2010).

Continuity of care may be considered more broadly as referring to care by a team of providers who see the woman antenatally with one being on call for the birth (Sandall et al., 2009; McCourt et al., 2006; Waldenstrom & Turnbull, 1998; Green et al., 2000). In this definition the continuity is in how the plan of care is managed and how information is shared among care providers (Haggerty et al., 2003). Much attention has been given in the literature to informational and management continuity to promote safety by providing clear plans of care through policy development, care pathways and electronic documentation (Guthrie, Saultz, Freeman & Haggerty, 2008). However, neither informational nor management continuity can completely substitute for the relationships that develop over time with a known caregiver (Guthrie, et al., 2008) since an understanding is gained through the relationship resulting in a plan of care that is meaningful to the patient.

The benefits of having a known caregiver for the labour and birth experience are inconsistently reported in the literature. In a review of the literature Green et al. (2000) found no evidence to support prioritizing having a known caregiver in labour. Although having a known midwife was preferred, competence and caring were identified as being more important attributes (Fellowes et al., 1999; Green et al., 2000). Receiving care from a skilled clinician instilled confidence (McCourt et al., 2006; Waldenstrom & Turnbull,

1998). Having experienced and capable providers who shared philosophical beliefs and attitudes regarding birth as a normal life event was found to be more important than having met that caregiver during the antenatal period (Fellowes et al., 1999; Green et al., 2000).

Conversely, having a known caregiver did increase satisfaction with care in a number of other studies (Foureur & Sandall, 2008; Homer et al., 2002; McCourt et al., 1998; Sandall, Soltani, Gates, Shennan & Devane, 2013; Walsh, 1999; Williams et al., 2010). Benefits to women include enhanced decision-making, reduced anxiety and a greater sense of control over care (Foureur & Sandall, 2008; Johnson, Stewart, Langdon, Kelly, & Yong, 2003; McLachlan, 2016; Williams et al., 2010). In a study using a descriptive comparative design, Johnson and colleagues assessed a new partnership caseload model of midwifery in Australia, which included continuity (Johnson, et al., 2003). Women who received care in the new primary care model as well as those who received standard public hospital maternity care were surveyed to assess degrees of continuity, choice, control and satisfaction in each model. More people receiving care in the primary care midwifery-led model experienced woman-centred care, control, choice and continuity compared to those who received usual care (Johnson et al., 2003).

However, the authors reported no significant difference in groups with regard to their preference for knowing the caregiver who attended them at the birth (Johnson et al., 2003). Patients in the partnership caseload midwifery-led model were better informed, more prepared for birth, and more satisfied with their care during pregnancy, labour and birth compared to those who received standard care. The greatest difference in satisfaction was with antenatal care (Johnson et al., 2003). In a recent Cochrane review Sandall et al. reviewed data from 13 trials involving a total of 16,242 women including

women at both low and high risk for complications. Outcomes for mothers and babies when midwives were the main providers of care were compared to those in medical-led or shared care models. When midwives were the main providers of care, women were less likely to experience preterm birth; they were more satisfied with care; and had fewer epidurals, fewer vacuum assisted births, and fewer episiotomies (Sandall et al., 2013).

Numerous studies have found that team midwifery can provide benefits of a known care provider without the demands of personal caseload practice. Satisfaction and positive outcomes were found when continuity was provided by a small group of midwives (Flint et al., 1989; Green et al., 2000; Hundley et al., 1997; McCourt et al., 2006; Rowley et al., 1995; Sandall et al., 2009; Tinkler & Quinney, 1998; Waldenstrom, Turnbull, 1998). Waldenstrom and Turnbull conducted a systematic review of 7 randomized controlled trials conducted in 5 different countries involving 9148 patients. Continuity of care in team-based care was compared to standard maternity care (Waldenstrom & Turnbull, 1998). The studies included models where continuity was provided across the antenatal, intrapartum and postpartum periods. Standard of care models included physician care, a mix of midwife and physician care and care from midwives but did not include continuity of care. The alternate models with continuity differed with respect to the type of model (team or individually named midwife) and the number of midwives involved in care (Waldenstrom & Turnbull, 1998). These differences posed challenges to the reviewers in their consideration of the literature (Waldenstrom & Turnbull, 1998). Data on obstetric interventions and maternal outcomes were examined and all alternative models were associated with lower rates of interventions (Waldenstrom & Turnbull, 1998). Rosenblatt et al. (1997) and Hundley (1994) found similar reductions in intervention rates in their studies of midwifery-led

versus standard care. These findings are consistent with the previously mentioned Cochrane reviews examining midwifery-led versus other models of care reinforcing the potential that the benefits may be related to the relationships that develop during the antenatal period and the trust that comes with competence and caring of those providing intrapartum care (Hattem et al., 2008; Sandall et al., 2013).

In an Australian study Brio and colleagues (2003) compared team midwifery with standard maternity care and found increased satisfaction consistent with the above findings. Like Johnson, they found that most of the difference in satisfaction was noted with antenatal care (Brio et al., 2003). This satisfaction was not attributed to continuity of care since patients receiving team midwifery saw more midwives compared to standard care due to the size of the teams (there were 7-8 midwives in the groups). Relationships that developed, the time spent with their caregivers and the encouragement to engage in decision-making were reported as most influential in generating satisfaction in participants (Brio et al., 2003). Team care clients reported receiving more support, being better informed and more engaged in decision-making compared to those women in standard care. These findings were reflected in other team-based midwifery studies (Brown & Lumley, 1994, 1998; Redshaw, Rowe, Hockley & Brocklehurst, 2007). Quality of relationships was cited as more important than knowing a caregiver (Green et al., 2000), which speaks to the importance of woman-centred care. Brio and colleagues also found that continuity of care during the intrapartum period mattered to consumers regardless of whether or not they had met the midwife before the labour. This may be explained by the continuous labour support women received from team midwives who had longer shifts. These findings are congruent with a Cochrane review examining the benefits of continuous support in labour (Hattem et al., 2008).

In general, there is good evidence that supports the effects of continuity of care on clinical outcomes (McLachlan et al., 2008; McLachlan et al., 2012). When a model of midwifery care that involved continuity of provider was compared with standard care (i.e. midwifery-led care with differing degrees of continuity, obstetric trainee care and community based-care shared care with general practitioners), continuity of carer models were associated with reduced rates of cesarean section (McLachlan et al., 2012). The explanation may be that a known and trusted caregiver who supported birth as a normal life event may have offered support and encouragement that built confidence in the patient and influenced the mode of delivery. Although Sandall et al. also reported reduced rates of interventions they did not find any difference in rates of cesarean section in midwifery-led groups compared to those in the obstetrical or shared care groups (Sandall et al., 2013). Improved clinical outcomes were further supported in a 2008 Cochrane review of 11 trials, involving 12, 276 women., Compared to usual care, continuity of care by an individual or teams of midwives was associated with several benefits for mothers and babies, and had no identified adverse effects (Hatem et al., 2008). Specifically, continuity of care was associated with reduced use of intrapartum analgesia, fewer episiotomies and fewer instrumental births as well as higher breastfeeding initiation rates and greater maternal sense of control (Hatem et al., 2008). The benefits in this review were found where a known team provided care and where the person who provided care specifically was known (Hatem, et al., 2008).

The philosophical beliefs about the inherent abilities of consumers, and birth as a normal event in life were identified as critical aspects of care affecting outcomes, as was the development of trusting patient-provider relationships. This raises questions about the importance of continuity of care compared to the philosophy of caregivers. Does

promoting woman-centred care and the philosophical view of normal birth among interprofessional, collaborative groups contribute to similarly positive clinical outcomes? Can collaboration within such groups promote sustainable maternity care without compromising clinical outcomes? Are there benefits to how the members of a group practice that would not exist within a uni-professional practice?

When considering the literature, differences in the various models of midwifery as well as variations in what constitutes standard maternity care in the countries where the studies were conducted made pooling data in a systematic review a challenge (Waldenstrom & Turnbull, 1998). Generalizing findings is also a challenge when the context is inconsistent. Differing definitions in the literature with regard to what constitutes a known caregiver posed more inconsistencies. It is not always clear whether the patient had established a relationship with the caregiver or if they had briefly met (Fellows et al., 1999; Homer et al., 2002). In some cases being known was left to the patient to define (Homer et al., 2002). Some of the studies used signatures on charts as indicators that the woman had met the midwife prior to labour however, Sandall et al. (2009) found that some of the people studied reported that they had not met the midwife when chart audits indicated that they had. It is possible that these people forgot the meeting. This raises questions about the value of meeting caregivers without an opportunity to develop a relationship.

Multiple studies describe the link between satisfaction and development of a trusting relationship (Tinkler & Quinney, 1998; Brown & Lumley, 1994, 1998). Satisfaction with care is complex. According to Sandall et al. (2009) recommendations for research include drawing on a framework of complex interventions, which requires theoretical modeling between processes and outcomes. In terms of assessing continuity,

Johnson and colleagues identify a need for reliable measures of clear association between the model of care and the level of continuity (Johnson et al., 2003). Consistent definitions of continuity are needed as well as identifying what constitutes “knowing” the care provider prior to the birth (Sandall et al., 2009).

Despite inconsistencies in definitions and differences in context the overall conclusion is that continuity of care is beneficial to recipients of care and there are no adverse effects. There is good evidence that continuity of care provided by maternity care teams can be effective. For this study it is assumed that when continuity of information and management are maintained and relationships are developed between the consumer and a small number of care providers, continuity of care should be achieved. Furthermore, when respectful, competent and caring primary care providers carry the attributes of collaborative care providers and share the philosophical belief of woman-centred care and birth as a normal life event then consumers should benefit from interprofessional collaborative models of maternity care.

The Study

An exploration of existing innovative approaches to care has the potential to provide information regarding how shared decision-making and continuity of care are reflected in interprofessional collaborative practices and how they are evaluated by recipients of care, which may help promote understanding as to which elements are critical and where flexibility might be acceptable. This information is important to give a sense of how similar or dis-similar these models are from the standard model of midwifery in Canada. Exploration into the structural influences as well as motivators driving the initiation of these alternative approaches may help us understand some of the reasons for choosing a collaborative approach to care and provide examples of the kinds

of communities where it works well. Studying collaborative models in communities where people are marginalized due to physical, psychological, social or economic issues has the potential to identify those best served by collaborative models. This information is not readily available in the literature. This study was designed to address these gaps by exploring four interprofessional collaborative maternity care practices with attention to the following research questions:

1. What were the social, political and structural issues that led to the development of three varied interprofessional collaborative models of maternity care in Canada?
2. What are the characteristics of interprofessional collaborative maternity practices and how do they shape shared decision-making and continuity of care?
3. How is a woman-centred philosophy enacted in interprofessional collaborative models at the level of team interactions and provider-patient encounters with regard to decision-making and continuity of care?
4. What are the experiences of recipients of care in interprofessional collaborative maternity care models?
5. What are the experiences of staff working in interprofessional collaborative maternity care models?

Examining the role of consumers in decision-making within the organizational models, and how consistency of information shared is maintained between care providers are both important considerations in evaluating shared decision-making within collaborative models. Understanding how continuity of care is provided and satisfaction with the extent of continuity included could help assess acceptability of interprofessional collaborative practice among midwives and consumers. Exploring strategies in place that encourage informational continuity and how patients perceive their efficacy may also

contribute to greater understanding of different types of continuity. If midwifery has been identified as part of a solution to a human resource shortage and it needs to be organized differently in order to address that need, it is important to identify what may be gained or lost in the new organization of care.

Theoretical Orientation

Multiple Case Study According to Stake as the Approach

A qualitative, multiple case study design was employed to explore four innovative organizational approaches to midwifery care to learn specifically about the extent to which continuity and shared decision making are incorporated into the approach. Case study originated in the educational literature but is widely used in evaluating health services (Hancock & Algozzine, 2006). The aim is to develop an in-depth understanding of an issue or a “case” through a thorough examination of a unit of analysis (Stake, 2006). The unit of study can be an individual, group or a program in single case study or comparative in multiple case studies (Stake, 1995, 2006). In this case the units are the exemplary models of maternity care as practiced in four different settings in BC making this a multiple case study (Stake, 2006).

Stake’s approach was chosen because it aligns with my constructivist epistemological belief that knowledge is created not discovered. Stake offers flexibility in the design enabling appreciation of the co-construction that occurs between the researcher and the participant. Multiple case study recognizes that one approach does not work in all situations and that contextual variables influence a phenomenon. This approach fits well with the intent of this study because it offers an opportunity to explore each practice individually with attention to their unique contexts but also compare them through cross case or collective analysis to confirm or refute the prior findings adding

depth to the understanding of interprofessional collaborative maternity care (Audet & d'Amboise, 2001).

In case study, each case is thoroughly described using clearly defined concepts related to the issue being analyzed. The researcher must also contain or limit the study by identifying criteria similar to inclusion or exclusion criteria used in quantitative research. Although qualitative research does not aim for generalizable findings, case study research can provide results that may be informative to others in similar contexts (Stake, 1978). The description should provide a vicarious experience and sense of “being there”. As such, it is important to include a description of the physical environment as well as the economic, historical or cultural context in defining the units of study (Stake, 1995). This is provided in chapter two.

Cultural systems of action refer to interrelated activities engaged by individuals in a social situation (Stake, 1995). This interaction determines how individuals relate to each other in their social context, which influences the units of study and is therefore important in defining a case (Stake, 1995, 2010). In this study this involves describing each unit of study including the geographic area served by the program, the population size, as well as the socio-economic status and cultural characteristics of the population served. It involves describing the services included in the program and what makes the program unique. This allows the reader to determine whether or not the case is similar to their situation and how transferable or generalizable the findings are to their own work (Stake, 1995). This is referred to as binding the case (Stake, 2010). In this study each case was bounded by geographic location, socio-economic status of the community, membership of group and scope of care provided. This was done by reviewing practice documents, researching the area served and by interviewing administrators and clinicians

responsible for designing the practices. The individual cases are important on their own but they share the common characteristic of being collaborative practices which makes them part of a collection referred to as a quintain (Stake, 2006). Binding the cases categorically as a quintain allows them to be studied together (Stake, 2006). Each case was studied individually in relation to the issues related to collaborative practice and patterns were established. Consistent with Stake's approach, the patterns within each case were then analyzed for cross-case findings (Stake, 2006).

Case study is a systematic analysis of multiple forms of data that enhance understanding of a given context and those who live in that context. It can be: explanatory which provides cause and effect or how or why something happens; exploratory which evaluates a situation within a context and defines questions for future research; or descriptive which presents a phenomenon within its context (Stake, 1995). This multiple case study evaluated the similarities and differences between collaborative models with attention to how the models addressed midwifery tenets of care and what influenced the development and ongoing implementation of the approach. The study was therefore exploratory in nature.

Complexity Theory as a Theoretical Framework

The influences on practice development and ongoing implementation as well as perceptions of care were considered using complexity theory which allowed for standardization of the overall purpose of delivery of maternity services but took account of the complexity of the social and cultural context where the services were being offered (Anderson, Crabtree, Steele & McDaniel, 2005). By considering context, practices have the potential to be more effective since each intervention is designed specifically for its local context and therefore may be a more appropriate fit for the environment in which it

is implemented (Hawe, Shiell, Riley & Gold, 2004).

Complexity theory has been used with case study research to deepen understanding since complexity theory stresses the interplay between elements within a system or unit of study rather than identifying them independently (Anderson et al., 2005). In health services research, complexity theory assumes that health services are complex, adaptive systems that change in ways that may not be predicted in advance (Litaker, Tomolo, Liberatore, Stange & Aron, 2006; Shiell, Hawe & Gold, 2008). Considering interprofessional maternity care practices as complex adaptive systems recognizes that they are comprised of interdependent elements that include varying complements of staff and patients in fluctuating environments with changing influences. It acknowledges that they are dynamic and ever changing in response to evolving needs and that they are influenced by and operate within larger systems of healthcare delivery consistent with the principles of complexity theory (Litaker, et al., 2006; Shiell, et al., 2008).

The history of a complex system affects the way it operates but it continually evolves (Plsek & Greenhalgh, 2001). Layers of context shape these complex systems of care. According to Hawe and colleagues, effects observed in intervention studies may be influenced by the context in which the study is conducted (Hawe, Shiell, Riley & Gold, 2004). Appreciating the need to continually adapt interventions and practices reflects the complexity of the environment and the system it is nested within (Shiell, et al., 2008).

Through complexity theory we can understand that a system is greater than the sum of its parts (Kernick, 2006). The elements within a system interact and influence each other and ideas and actions are interdependent (Anderson et al., 2005). In health care, patients interact with the health care system within their social and environmental

context (McDonough, Sacker & Wiggins, 2005). According to complexity theory, actions and ideas need to be considered interdependently in order to better understand recurring patterns and the system as a whole (Capra, 1996; Lee, 1997). Like case study, complexity theory, requires examination of the unexpected by studying units of maximum variance. Looking for extreme situations or experiences within a system can offer more information for comparison (Anderson, Hsieh & Su, 1998). Similarly, Stake (2006) suggests that multiple case studies offer a way of understanding what happens within complex programs and systems across a number of different domains. There is therefore a strong link between complexity theory, as it has been applied to organizations and to health services, and multiple case study design.

Conclusion

Maternity services are not equally distributed across Canada. Although the number of midwives is growing, the number of family physicians providing intrapartum care is falling. Interprofessional collaboration in maternity care has been identified as a strategy for promoting sustainability and increasing access in underserved areas. However, little evaluation of interprofessional collaborative maternity care (IPCMC) models that include midwives has been conducted therefore the benefits cannot be proclaimed. Although there is support for collaboration from the midwifery community, there are questions as to whether important aspects of continuity of care and shared decision-making will be compromised in collaborative practice. It is important to determine whether or not midwives can provide woman-centred care in collaborative care models with a degree of continuity of care that is positively assessed by recipients of care. This study examines the motivating factors influencing the development and ongoing operation of collaborative maternity care models that include midwives and how

they meet unique needs within the maternity system. It also explores how continuity of care and shared decision-making are included in the varied models and how recipients of care and caregivers alike evaluated their inclusion. Approaching this evaluation through a multiple case study analysis applying complexity theory sheds light on the uniqueness of collaborative models while providing insight into how these approaches meet the needs of the communities they serve.

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CHAPTER 2

**OPERATIONALIZING INTERPROFESSIONAL MODELS OF MATERNITY
CARE IN BRITISH COLUMBIA, CANADA:
EXAMINING STRUCTURES AND PROCESS OF CARE**

Maternity care providers are not evenly distributed across Canada. Indeed, there are populations of Canadian women who have limited access to services that address their specific needs. Women in rural areas as well as those who are marginalized due to physical, psychological or social issues including those who are recent immigrants or refugees, often experience difficulties accessing health care (Fraser Health, 2014; Rogers, 2003). They can be overwhelmed by a system that cannot provide the time and support they need.

Gaps in maternity services are partly explained by shifts in who provides these services. There has been a reduction in the number of family physicians providing maternity care in Canada over the past decade (College of Family Physicians of Canada [CFPC], 2010; CFPC, 2001). Obstetricians provide the majority of maternity care to women experiencing low-risk pregnancy attending 61% of vaginal births in Canada, an increase from 56% in 1996 (Canadian Institute for Health Information [CIHI], 2004). Relying on obstetric specialists to provide primary care to this low-risk population reduces their availability to women who require their expertise. The Society of Obstetricians and Gynecologists of Canada is concerned that the lack of timely access to obstetric healthcare for women of higher risk may be putting them and their babies at increased risk (Farrell et al., 2008).

There are approximately 1500 registered midwives across Canada (Canadian Association of Midwives [CAM], 2016) with regulated midwifery in place in all

jurisdictions except Prince Edward Island and the Yukon Territory (Malott, Murray Davis, McDonald & Hutton, 2009). A recent announcement of plans for the regulation of midwifery in the province of Newfoundland and Labrador indicates continued support for the profession (House of Assembly, 2016). However, midwifery services are not evenly distributed across the country (CAM, 2012) and demand exceeds the supply in every province, such that 40% of women who request midwifery care are unable to access this type of care (BORN Ontario, 2008).

In provinces where midwifery is funded by government, a form of capitation payment is applied with a limit given on the number of patients each midwife can enroll (CAM, 2015). Limiting the number of women who can access midwifery services is most concerning in underserviced areas where no other options for caregivers exist. While the midwifery model promotes longer visits, informed decision-making and personalized care and this contributes to development of a trusting relationship (Hatem et al., 2008), it may be at the expense of limiting access for a greater number of Canadian women.

There is an opportunity for midwives to play a greater role in the delivery of maternity care to different populations in a way that brings satisfaction to women while promoting sustainability of services through the development of interprofessional collaborative maternity care (IPCMC) practices. These practices are teams of providers, each with a unique perspective, who work together and share care of women using a common woman-centred philosophical approach. The unique perspectives of team members with different types of expertise may be particularly helpful for patients with complex histories (Roberts & Beitel, 2014). Interprofessional models that include midwives are considered to be innovative and in, most cases, in the early stage of

development, the merits of which have spurred debate. Specifically, there is concern within midwifery that new organizational models could result in the loss of essential elements of care, particularly continuity of care, resulting in negative outcomes for women and their babies (College of Midwives of Ontario [CMO], 2009; Peterson, Medves, Davies & Graham, 2007).

In fact, little is known about how interprofessional collaborative maternity care models actually work, and whether these approaches to care meet women's needs. Although research has examined midwifery team models of care (Hattem et al., 2008; Brio, Waldenstrom, Brown & Pannifex, 2003; Sandall, Hattem, Devae, Soltani & Gates, 2009; McCourt, Stevens, Sandall, Brodie, 2006; Green, Renfrew & Curtis, 2000), the organizational structure of interprofessional maternity teams and the process they use to deliver care have not been studied in the Canadian context. There is a need to explore both the structure of these practices and ways in which they function in order to understand how they can be best operationalized. This study was designed to address these gaps. Specifically, the purposes of the study were: a) to explore the factors influencing how interprofessional collaborative maternity care is organized and enacted, and, b) to understand whether and how midwives can provide relational care in interprofessional collaborative maternity care (IPCMC) practices in ways that are positively evaluated by women and staff.

In this manuscript, we address the first of these purposes and describe aspects of the structure and process of delivering of care in four different Canadian collaborative interprofessional models involving midwives, each of which represents a unique approach to care. Given that context has a powerful influence on care delivery and how people experience health (Hankivski et al., 2010; Roberts & Beitel, 2014; Society of

Obstetricians and Gynecologists of Canada [SOGC], 2008), we pay particular attention to describing commonalities and variations in structural characteristics of these practices, including their developmental history, mandate and funding, client population, team composition and community context; and how these structures shape approaches to care. By describing the structural characteristics of these models, we hope to stimulate conversations and thinking about varied ways that collaborative maternity care can be taken up while maintaining elements of midwifery care that promote optimal clinical outcomes. This analysis also provides the foundation for a more detailed examination of continuity of care consistent with the second aim of the study (Malott, Ford-Gilboe, Kothari & Kaufman, 2016b) and the facilitators and barriers to implementation of interprofessional collaborative maternity care (Malott, Ford-Gilboe, Kothari & Kaufman, 2016c) reported elsewhere.

Method

Design

A qualitative, multiple case study design (Stake, 2006) employing in-depth, semi-structured interviews and observation was used to explore variations in the structure and function of models of interprofessional collaborative maternity care across four differing cases. Specific attention was given to understanding their shared and unique histories, how the practices were organized and provide care, and the extent to which a woman-centred philosophy was demonstrated.

Case study is commonly used in health service research to learn about an issue through a detailed examination using multiple sources (Stake, 2006). This allows for triangulation of data to enhance understanding, confirm or dispute findings and promote rigor and trustworthiness through the analysis by offering multiple perspectives (Flick,

1992; Stake, 2006). The unit of study can be an individual, group or a program, in a single case study or it can be a comparison of multiple cases that examine a shared phenomenon (Stake, 1995, 2006). In this study, the phenomenon is interprofessional collaborative maternity care and the cases are four unique practices that deliver such care.

Multiple case study (MCS) embraces the notion that a single approach does not work in all situations and that understanding the complexity within a phenomenon is useful (Stake, 1995, 2006, 2010). Stake's (2010) approach to MCS was employed because it integrates multiple sources, while emphasizing the importance of context and the factors that influence the cases. This is appropriate in exploring models of interprofessional collaborative maternity care since the context of each practice is unique and this shapes how these practices function (SOGC, 2008). We anticipated that studying these cases collectively would yield richer findings related to contextual influences than exploring a single case (Stake, 2010).

Sampling the Cases

At the time of data collection, four interprofessional collaborative maternity care (IPCMC) groups existed in British Columbia (BC). As such, all of these practices were invited and agreed to take part in this study. New initiatives have continuously developed in other regions across Canada; however, few involve sharing care but focus on either working in proximity or providing consultation services. A few other IPCMC practices are operating in Canada, but they are scattered across the country and, as such, are influenced by differing requirements of local regulatory bodies. By limiting the cases included in this study to those in one province, we attempt to contain the impact of varied regulatory and policy influences at the provincial level.

To date, only one IPCMC practice has been evaluated. It was the first such practice and is well known in the midwifery community for its innovative approach. Located in BC, it is considered to be controversial by many. As a midwife, I (AM) am considered an insider with awareness of the benefits of promoting accessibility of services but also share concerns about deviation from the dominant midwifery model that is grounded in highly valued elements of woman-centred care. By including this first practice, we hoped to gain deeper insight into controversies about IPCMC and the lessons learned by the team involved in setting up this first exemplar. To identify and recruit additional cases, we searched for publically available information about new initiatives in BC.

An overview of the cases is provided here to frame the findings. For reference, each practice was given a label based on the approach to care described on its website. The labels fit with features that stood out initially based on available information and are not intended to imply that the other practices lack these qualities.

The Interchangeable Team. This practice was created in 2003 in an underserved area of a metropolitan city in BC to better serve immigrant and refugee women for whom English was not a first language (Harris & Saxell, 2003). An important element of the program was the inclusion of doulas that, collectively, spoke more than 20 languages and could provide labour support in the client's first language (South Community Birth Program, 2014). The program established a foundation to assist patients with financial challenges with vouchers and supplies further demonstrating a commitment to vulnerable populations. The unique features of this practice were the diversity of the population served and the integration of providers with such consistency that they were interchangeable.

The Midwife-Physician Partnership. This practice began in 2010 and evolved into a group of three registered midwives (RMs) and two physicians (MDs) who were all committed to person-centered care. Website information describes how the physicians supported the midwives in this practice by sharing knowledge and medical expertise while they maintained a low intervention approach consistent with midwifery philosophy (Fraser Valley Maternity Group, 2014).

The Shared Care Model. This practice was established in 2011 within a rapidly growing city with a diverse population. It was integrated within an outpatient facility, which offered access to specialty medical clinics, nutritional counseling, ultrasound, settlement assistance and a variety of other services (Fraser Health, 2012). The practice provided translation in multiple languages and a doula program with a focus on providing support for women with high social needs as they transition to parenthood (Perinatal Services BC, 2013).

The Patient Partnership. This was the newest practice included in the study. It was established in 2013 in a small town/rural community with a commitment to providing meaningful maternity care that is empowering for women (AppleTree Maternity, 2016). This was accomplished through partnering with women in decision-making and planning care. This site was selected primarily because of the rural context, and commitment to providing sustainable maternity services.

Although varied in their approaches, the practices shared a common philosophical belief that birth is a normal life event and all were committed to low intervention. They each promoted relational care through prenatal visits that allowed enough time to engage women in informed and shared decision-making. Providers within these practices shared intra partum care across professional groups through an on-call system and all practices

provided women with an opportunity to initially meet the team of providers who could be involved in their care.

Data Collection

Sources of data included: a period of observation at each practice to appreciate contextual influences; and semi-structured interviews with administrative staff and caregivers (n=40) and women (n=33) who were recipients of care to learn about their experiences within the model. Organizational and policy documents were reviewed initially to help sensitize the principle investigator (AM) to the history of the practices and important policies that might be affecting them.

Interviews. A total of 73 semi-structured interviews were conducted with staff and recipients of care. The focus of the two sets of interviews differed. Interviews with 40 care providers; administrators and program planners explored the development of practices and implementation of care. Semi-structured interviews with staff were 60-90 minutes in duration. Questions were organized to explore three main areas: context, collaborative care and woman-centred philosophy. An opening contextual question allowed participants to describe the developmental history of the practice. The interview guide was used with flexibility following the participants' lead using probes as required. Staff participants included all those who consented and were present during the observational period in the practice and include 8 physicians, 22 midwives, 2 nurse practitioners, 1 registered nurse, 2 doulas and 5 administrators. Staff had a wide range of practice experience, and included those who had just begun their careers and those who were preparing to retire. Consistent with standard practice in qualitative research, sample size was determined by data saturation (Glaser & Strauss, 1967). Staff members were recruited with the intention of eliciting rich, thick data consistent with the research

questions until the point of saturation, where gathered information became redundant and where new interviews yielded no new insights (Polit & Beck, 2012). Within the *Interchangeable Team* practice, interviews continued after saturation to allow for continued input from interested staff. Where possible, key administrative personnel were interviewed first to establish a foundational understanding of the developmental history and operation of the clinic, with other interviews scheduled on clinic days during the week-long visits. Follow up interviews occurred as needed at the end of the clinic visit to clarify any inconsistencies or gaps in data collected.

Interviews were also conducted with a convenience sample of 33 recipients of care. In each practice, 5-10 women present in the clinic during the data collection period, and would could communicate in English, took part in a 30-60 minute semi-structured interview after providing informed consent. About half (45.5%, n = 15) of these women were multiparous, 9 % (n =3) self-identified aboriginal, 9% (n =3) lived in a rural community, and 6% (n = 2) were newcomers who have lived in Canada for < 5years. The majority (75.8%, n = 25) had some post- secondary education and reported annual household incomes > \$50,000 Canadian. Interviews were shorter than provider interviews due to recognized demands on mothers with newborns present. Questions were organized to explore three main topics: collaborative care, woman-centred philosophy and general satisfaction. Like staff interviews, the approach was flexible, following the lead of the participant.

Observations. One-week, intensive visits in each practice provided an opportunity to observe the clinic space and population accessing care in order to develop an appreciation of the particular ‘look and feel’ of each clinic. Specifically, observations provided contextual information about the location, building structure and arrangement of

the clinic space and interactions between people (patients and staff) in the waiting area and within the clinic itself. General hallway interactions between providers and patients helped illuminate the nature of relationships between staff and whether the staff knew the women in care. Observations of interprofessional team meetings, educational sessions and consultation meetings provided opportunities to witness group dynamics and decision-making within the team. A walk in the neighbourhood around each practice provided additional information about social context, specifically ethnic diversity, housing and socio-economic status of the community. An observational grid outlining the criteria for observation promoted consistency of data collection and recording. Field notes that captured aspects of these observations in more detail were also taken and contributed to the experience of “being there”.

Analysis, Interpretation and Trustworthiness

Preliminary codes were derived from concepts explored in the interview guide. Nvivo-10 was used to first code these data and then organize them into categories. Line-by-line coding of the transcripts and observational memos allowed for differentiation of the themes and identification of patterns and categories. This involved re-organizing the data in meaningful ways consistent with case study methodology (Stake, 1995; Crabtree & Miller, 1992).

Coded data were synthesized to produce in-depth descriptions of the context, process, and impacts of collaborative care in each practice. These summaries enabled reflection on how patterns and categories were supported by the data. Analytic notes were used to document the coding process by capturing thoughts, ideas and revelations that surfaced through the analysis (Miles, Mathew & Huberman, 1994). Attention was given to both commonalities and differences across practices, and to factors that

explained such differences. Analytic notes tracked the conceptual progression of the findings (Boeije, 2010). Reflexive writing provided an opportunity to identify assumptions and biases to help articulate them and understand how they influenced interpretations, contributing to the trustworthiness of the analysis (Creswell, 2007). Organizational and policy documents were used during the analysis to understand the larger contexts at play. Analytic notes were integrated into the analysis substantiating patterns and relationships between concepts. Writing and re-writing of the analysis required deeper thought and consideration of the themes, patterns and associations adding to the overall understanding of the cases.

Ethical Considerations

Approval to conduct this study was obtained from the appropriate University Research Ethics Boards. A letter of information was reviewed with each potential participant immediately prior to the interviews and written consent obtained. Participants were reminded of their ability to withdraw consent at any time. Participant ID numbers were assigned and identifiers were removed from study transcripts to maintain confidentiality at the individual level. However, given that all interprofessional collaborative maternity care practices in BC participated in this study, and documents about these practices contributed to the data collected, anonymity of the sites was not possible. Confidentiality of each practice could not be guaranteed because references about the practices used in the analysis reveal their identity. However, this was made explicit to the participants during the consent process, with consent reaffirmed after the analysis had been completed and findings shared. Data were imported to a password-protected computer, locked and secured.

Findings

Organizational Structure and Context of Each Practice

Descriptions of practice settings provide a holistic understanding of the cases being explored. The location of practices varied from large city/urban area, to small town/rural area. Populations differed from lower income and predominantly English speaking to socially vulnerable, and/or culturally diverse. Consistent with the local context, the practices also had different mandates. The number of providers varied from 3-9 midwives and 1-3 family physicians sharing on call work. Nurse practitioners, registered nurses and doulas provided antenatal and postnatal care along with midwives and physicians. Doulas were involved at some practices more than others. At the time of data collection, practices had been in operation for 1-10 years (Table 1).

Table 1

Characteristics of Four Interprofessional Maternity Care Practices

	Interchangeable Team	Shared Care Model	Midwife-Physician Partnership	Patient Partnership Model
Date Opened	2003	2011	2010	2013
Setting/Community Context	Metropolitan City Expensive housing Multiple services	Urban/Growing Affordable housing High crime area	Small city Limited public Transit	Small town/Rural area Recreational Focus
Mandate	Access for underserved, multi-ethnic community	Accessible, integrated health services	Extend woman-centred maternity care	Maintain rural obstetric services
Client Population	Recent immigrants Ethnically diverse	Ethnically diverse High rates of substance use	Less ethnic diversity Low income	Least ethnically diverse
Team Composition	Physicians (2) Midwives (9) Nurse Practitioners (2) RN/Lactation Consultants (2)	Physicians (3) Midwives (6) Nurse Practitioner (1) RN/Lactation consultant (1)	Physicians (2) Midwives (2) Lactation consultant (1) Doula (1)	Physicians (2) Midwives (4) RN or Doula Facilitators (3)

Interchangeable Team. This practice was located in a city with a population of over 600,000 in 2011, which had increased by 4.4% since 2006 (Statistics Canada, 2011a). Diversity was apparent with a total visible minority rate of 51.8%, while the immigration rate was 43.8% and 40.3% of the population had a non-official first language (Statistics Canada, 2011b).

The practice offered group or individual care that was generally shared among two to three providers who approached care in a consistent fashion but women were encouraged to meet the entire team. On call work was shared across intrapartum providers. Doulas, who provided labour support in many different languages and who often shared cultural backgrounds with patients, were key to this practice since they were known to the clients and provided continuity.

Shared Care Model. This practice was located in one of the fastest growing cities in Canada. According to Census 2011, the population was more than 450,000, which was an increase of 18% from 395,000 in 2006 (Statistics Canada, 2011c). The growing population was attributed to the availability of affordable housing and proximity to a metropolitan city. This diverse community had a strong South Asian and Chinese presence (Statistics Canada, 2011d). According to the National Household Survey 2011, 40.5% of the population was foreign born and 18.6% of these immigrants came to the city between 2006-2011 (Statistics Canada, 2011d). Within the community, a subset of people with substance use problems received care at a local treatment centre. These clients also accessed maternity care with the collaborative practice. According to a local report, this community was affected by addiction, homelessness, mental illness and an overall crime rate 12% higher than the provincial statistics (SurreyCares, 2014).

The practice approach was modeled after the *Interchangeable Team* in that providers co-facilitated group care, shared on call work and doulas were involved but the population served required strategic use of providers with particular skill sets such that they were not considered to be interchangeable.

Midwife-Physician Partnership. This practice was located in central BC with two clinics in neighboring towns with a combined population of approximately 170,000 (Statistics Canada, 2011e). The population has been stable with little growth over the past decade. The patients served were predominantly English speaking and lived on low incomes. According to Statistics Canada, the median income was \$26,428 in 2011 and median household income was \$62,350. There was a South Asian presence but diversity was less than in the metropolitan center. The towns were surrounded by agricultural land, hours from major cities, but with highway access. The practice model was closely aligned with usual midwifery care in that women received individual woman-centered care prenatally but participated in drop-in postpartum group care. Midwives in this practice were able to see more medically complex women compared to typical midwifery clientele because of the existing physician support.

Patient Partnership Model. This practice was in a small town (population 10,000) that was originally a gold mining town that grew during the Vietnam War as draft dodgers left the US looking for a settlement north of the boarder (Destination BC Corporation, 2014). As a recreational community in the mountains, on a lake and near beautiful trails, the town attracted nature lovers who enjoyed the outdoors and were looking for an independent ‘live off the land’ way of living. Desire to maintain independence influenced the way women engaged with healthcare providers, setting expectations for partnership in decision-making. Threatened hospital closures further

united the community and providers to maintain services and support local primary care providers (CMBC, 2005). This was the first rural IPCMC practice in Canada. Sharing care in this model enabled family physicians to maintain their general practice while providing maternity care, which kept maternity care close to home for women in this town (The Nelson Star, 2015).

History, Mandate, Funding

The developmental history of each of these practices, their specific mandate and whether or not they received additional external funding (beyond usual payment by capitation model to midwives and fee for service for physicians) imposed structures that impacted when and why these practices were first created.

Getting Started. The *Interchangeable Team* was created as the first innovative IPCMC practice with support from Primary Health Care Transition Funds (PHCTF) to address the needs of a predominantly immigrant population in an underserved area of a metropolitan city in BC. These funds supported start up costs and development of protocols and standards of care that were later used by other practices. Standardizing approaches to care was important in building trust across the group of providers that care would be consistent. One midwife remarked: “People have to know that standard will be maintained to have any trust in each other. It’s about confidence” (Mika). Providers billed the Medical Service Plan of BC for clinical care as they would in any practice but the additional funding covered salaries for nurses, nurse practitioners, overhead and administrative support. This financial support provided resources to build the practice while reaching out to the target population.

The *Shared Care Model* was designed to serve a similar population with complex medical and social needs within an integrated health service center operated by a local

health authority. As such, the practice received financial support from the health authority for overhead expenses along with practical support and mentoring from the *Interchangeable Team*. Together, these contributed to efficient launching of the program. One Midwife remarked on the importance of structural supports to get the practice started:

“It takes time to launch [a new practice], all the equipment, the supplies, the support staff. The collaboration with the Health Authority was really important in getting us started...and the [established collaborative practice] really helped us....They shared their lessons learned with payment and logistics and how to organize care.... That really helped a lot” (Rupinder).

Developing Partnerships. The *Midwife-Physician Partnership* and *Patient Partnership Models* developed as extensions of existing community-based midwifery and or medical practices in which providers wanted to support each other as clinicians. They did not serve a discrete target population per se but wanted to better serve the local community through collaborative care. The *Midwife-Physician Partnership* began as a family-centered care medical practice that originated long before midwifery was regulated in British Columbia. This group of physicians cared for multi-generational families for over 30 years with a genuine appreciation of the context in which these women lived. They provided support for midwifery through mentorship of student midwives in the early days of integrating midwifery in BC because they shared a family-centered, low interventional approach to care. Structures of support were evident in the model design, organization of visits that engaged physicians as mentors and in the availability of physicians as consultants within the practice. Building on common goals,

commitments and experiences was seen as an important foundation for this collaborative practice as described by one of the founding physicians:

“[MD] and I grew up here. We've worked here all our careers. We know this community and know families and want to give them what they need: patient-centered care, and we wanted to work with people who thought the same way” (Dakota).

The initial decision to work together was not as philosophical in the *Patient Partnership Model* as it was political. In this community, obstetric services were being threatened and “the community was outraged”. Midwives and physicians united to push back and partnered with the community, and with each other, to lobby to retain needed services and to ultimately ‘save maternity care’ in this community. This political activity improved relationships between midwives and physicians and cultivated a common appreciation and interprofessional bond that lead to conversations about collaboration. A senior midwife in the practice explained:

“They told us that we were moving to regionalization. We would no longer have an obstetrician at our hospital. We [midwives] were stuck. We had bad relationships with the OBs then but we all worked together to save maternity care in [town]. It turned things around in a certain way for us” (Arlene).

As sustainability of maternity care in a small family practice in the town became challenging, awareness of the work-life balance benefits of collaboration across the professions grew, providing additional support for collaboration. Although different in the initial stimulus for development, the foundational elements of these two practices were similar. Mutual respect and the philosophical belief of birth as a normal life event were consistent across these collaborative groups.

Thus, there were many different reasons for establishing these interprofessional collaborative maternity care practices. Some were driven by available funding opportunities but all were based on desire to serve the needs of a community. The lessons learned and experiences of pioneering IPCMC practices were used to guide the development of subsequent practices particularly around establishing consistency in practice across interprofessional groups and creating an internal payment structure.

Population, Community Context and Team Functioning

The population served, the community or location of the program and team composition influenced how these practices functioned. The composition of the group was determined not only by the availability of professionals within a community but also by the kind of work required and a desire to work with specific populations.

Collaborative care providers required specific attributes, leadership and communication skills, as well as dedication to the needed time and energy to ensure coordination of care and excellent communication. Although many believed in the model theoretically, not all providers found it feasible, resulting in varied degrees of staff turnover.

Dealing with Diversity. The populations of smaller practice locations were less diverse than in more urban settings. The *Midwife-Physician Model* and *Patient Partnership Model* were not within or in close proximity to a metropolitan city, and therefore, there were fewer newcomers and less of a need to support integration or translation compared to the other communities studied. The *Shared Care Model* and the *Interchangeable Team* served more vulnerable populations, many of whom were immigrants or were marginalized by poverty or substance use problems. As such, there was a greater need for financial assistance and aid with negotiating access to health and social services. Recognizing the challenges of low income, both of these practices

engaged in fundraising through development of charitable organizations associated with the practices so that they could offer support for basics like “grocery cards and taxi rides” to those in need.

The nature of the population served influenced the staff that worked there. Providers who specifically wanted to work with refugees or immigrant women, and those with ‘complex lives’ were attracted to these practices. At the *Shared Care Model*, women living with substance use issues presented with additional physical and psychological needs, attracting care providers with additional skills in counseling and harm reduction to that practice, and who gained satisfaction from this type of work. A nurse practitioner explains:

“We do have complex patients with psychiatric histories and they need a lot of help and time working with the system... I liaise with the [child protection] if it’s complicated and I really like that.” (Theira).

Staff skill sets also influenced the way they interacted with the group and the approach to collaboration that was enacted. For example, the lead physician was also a licensed methadone provider so her role included management of people with addictions. One midwife in the practice had extensive experience with refugee women and another was a practicing naturopath. At times, they acted more as consultants to each other because of their expertise in order to maximize their contribution to care.

Rural Influences on “Expectations”. The rural context had an impact on how care was organized within the *Midwife-Physician Partnership* and the *Patient Partnership Model*. For example, the *Midwife-Physician Partnership* was centrally located within the province but was surrounded by farmland. The economy was influenced by location with fewer major businesses or off shore investors and more

locally owned and operated small businesses compared to the metropolitan cities in the province. Fewer employment opportunities resulted in relatively stable population, fewer newcomers and a sense of trust, familiarity and belonging within the community that informants attributed to people remaining in the community where they were raised. The familiarity of the small town also influenced professional behaviour, which affected team functioning. Specifically, staff described a sense of social accountability and experiences of not being anonymous in their small town (“you can’t hide”), that lead them to prioritize ongoing cooperation and resolution of conflict. A midwife in the practice reflected about how knowing each other in this small community affected team interactions:

“We see [each other] outside of the hospital on a day-to-day basis at ... social situations; and so we have a lot of opportunity to get to know one another. You have to be responsible for your behaviour because you’re going to see that person the next day” (Victoria).

The *Patient Partnership Model* served a small town with people living in the neighbouring mountainous region or around the local lake, some up to 2 hours from the clinic. These people could not give birth in their communities because of a lack of services. However, some wanted to maintain a relationship with their family physician and reduce the need for travel, particularly in dangerous winter driving conditions. The model incorporated tele-maternity into the practice as a strategy for increasing accessibility. This innovative approach facilitated shared decision-making with the family physician over the web in a way that encouraged relationship development, promoted trust and enhanced feelings of being known to the intrapartum team, while “keeping women safe in their community.” It also promoted an ongoing relationship

with their known and trusted primary care provider and offered opportunities for education and support for general practitioners who had inconsistent opportunities to care for pregnant patients in their rural practice.

The rural influence impacted team composition and support across the group. Providers acknowledged the multiple competing roles of providers in small rural communities where physicians managed more complex patients in their medical practices since specialty consultants were not accessible. This required flexibility in how they engaged in the collaborative model while they maintained their medical practices.

Team Functioning. The practice group size, composition and roles varied across practices and reflected the context and number of births in each community. In some cases, the composition of the team was difficult to track due to staff turnover. A midwife with the *Patient Partnership Model* describes how locums were used to provide temporary coverage, but at times replacements were not available illustrating the vulnerability of the programs and the negative impacts on providers:

“It’s more onerous on the physicians, especially now because one’s on leave; it’s just [MD] who has a lot of responsibility for that kind of stuff, which is not totally sustainable as it stands” (Charlotte).

As well, several providers offered combined skill sets, which enabled flexibility in roles and responsibilities. In some cases, registered nurses or midwives were also lactation consultants and, in one case, a registered midwife was also a naturopathic doctor. Nurses, midwives, and physicians co-facilitated group care in some practices where in others physicians assumed more of a consultant role. For example, physicians in the *Shared Care Model* were licensed methadone providers allowing for unique contribution to the team. They coordinated the medical care of women with substance use problems

while midwives provided much of the supportive care. In the *Midwife-Physician Partnership*, all women regardless of their situation met a physician in the first trimester to review their history and follow up with any medical concerns. Midwives appreciated that having physician involvement and mentorship enabling them to reach more women with a broader scope of care, and physicians valued the extensive support women received from midwives.

Approaches to Care. The organization of care in the *Shared Care Model*, the *Interchangeable Team* and the *Patient Partnership Model*, was similar. Women chose group or individual care, with most primigravid patients choosing group and most multiparous patients choosing individual care. Group care was co-facilitated by two providers, usually a nurse and midwife or nurse and physician. At the *Interchangeable Team* the aim was for such consistency in care across providers that the women did not know the professional group of their provider. A physician explains: “People don’t necessarily know if they’re cared for by a doctor, midwife or nurse. If that happens, we’ve done our job” (Bela). These group care approaches are novel particularly because they utilize interprofessional combinations of providers, offering the opportunity to integrate perspectives of different providers within the same group sessions in a way that is dialogic and informal.

Community size also influenced approach to care. The *Patient Partnership Model* was located in a small community and, therefore, could not support a large complement of staff. Conversely, the *Interchangeable Team* supported a densely populated metropolitan city, where birth rates were higher. Larger populations of women contributed to the efficiency of group care as an approach while promoting a sense of

community among the pregnant women. Doulas provided continuity and labour support often in their first language.

Midwives at each practice saw women in their homes during the first week postpartum unless the women lived outside their designated catchment area. Physicians with the *Patient Partnership Model* also participated in postpartum home visits. A midwife explains: “Whoever is first on-call does the home visit – midwives or physicians” (Charlotte). This is unlike usual physician models of care and demonstrates the influence of interprofessional care. In the *Shared Care Model* and the *Interchangeable Team*, clients re-joined their groups and shared their birth stories in a unique form of group care. Different approaches were used at other practices. For example, clients at the *Patient-Partnership Model* joined a postpartum group designed to focus on transition to parenthood and lactation while the postpartum group sessions in the *Midwife-Physician Model* were drop in and less formal.

Growth, Complexity and Change

Although varied, both rural and urban settings faced equally challenging but different types of complexity that were influenced by growth, change and needs of the population served. Each setting will be addressed separately to underscore the impact of context.

Appreciating Intersecting Issues. Rapidly growing urban communities included newcomers or transient populations who were often more challenging to care for, yet providers in these practices were committed to meeting their needs. The *Shared Care Model* was located in a fast growing city with a large immigrant population where housing was affordable relative to the neighbouring metropolitan real estate market. This growth contributed to a changing demographic with maternity care needs as young

families settled in this community and began having Canadian born babies. The effects of poverty and the social complexity of the lives of many of the people in this community contributed to a greater need for support. A midwife in the practice explained: “If people’s lives are somewhat chaotic, or [they experience] multiple demands, then they may not call back for an appointment, or they might be potentially falling through the cracks” (Anupa). Newcomers faced particular challenges when they were not well integrated into the community, did not speak the language, or did not have access to a family doctor, friends or relatives.

Poverty and instability within the larger community also shaped the experiences of staff that provided care. The specific community where this clinic was located was near a poverty-affected neighbourhood with a high crime rate. Although it was expected these issues also affected recipients of care and their families, study findings did not explicitly support this idea. A midwife described the neighbourhood: “You can hear people sometimes fight, and shooting in this place, around here, yes. I’m living here for one year, and I’m moving out actually next month” (Anupa). The staff at this clinic recognized the danger associated with living and working in this community yet many remained dedicated to the needs of the community of people living in marginalized conditions. Finding staff with this degree of commitment was important to the practice because those who were not committed did not stay, resulting in instability.

The impact of client and community complexity on the model of care was apparent in the *Interchangeable Team* as well. This practice was located in a metropolitan city that was the point of entry to Canada for many newcomers. Similar to the *Shared Care Model*, settlement services designed to offer support to clients in a variety of languages, along with a family medical clinic, were located within the same building as

the maternity care group; this enabled referrals to be made across these services. Thus, the complex needs of the populations served by these growing and changing communities required flexibility in the provision of care in order to meet local needs.

Rural settings experienced complexity in different ways. Geographic barriers surrounding the *Patient Partnership Model* presented challenges particularly in poor driving conditions since two-lane highways were often populated with enormous logging trucks adding to the element of danger. Distance to clinic and the local hospital was a challenge for many recipients of care and caregivers alike since this clinic provided homebirth and postpartum home visits requiring on-call providers to be outside the community for periods of time.

The multiple roles and relationships providers have in a small town community added further complexity. General Practitioners did not have specialist support so their scope was greater. A midwife explains how this makes it difficult to provide maternity care: “They do it all [medical clinic and maternity care] so we work with that, cover more call and bring them in when we need them. Its what the community needs” (Charlotte). As neighbours within the community they may also know their patients socially or see them in town. A physician explains: “I see my patients hiking and at the grocery store. I feel like I know them because of it but I’m always ‘on’ in a way that is different from being in bigger cities” (Caroline).

Strategic Changes Over Time. The approaches used to serve people in these communities were not static but evolved over time in strategic ways. Models were adapted as the needs of the population served became more apparent or as staffing situations changed. For example, the *Interchangeable Team* identified that many newcomers in their care could not access a primary care provider, which prompted them

to take unorthodox steps to ensure ongoing care of these women and their families.

Mika, a midwife with the *Interchangeable Team* recounted this decision: “It’s shocking how many patients would be discharged at 6 weeks and have no where to go.... They’re not meaningfully attached [to a practice]. So we opened a medical practice and kept them.” This action demonstrates responsiveness of the practice to provide ongoing care that is close to home for women who face access barriers, in a proactive, practical and flexible manner that seems to reflect an entrepreneurial spirit.

There was a movement in some practices to maximize the expertise of members through their strategic involvement rather than sharing care across providers who were considered interchangeable. This involved scheduling more routine visits with midwives and using appointments with physicians particularly when consultations or medical follow up were required. This change was explained as one that best used their human resources and acknowledged other roles maintained by physicians in the community. Strategic inclusion of physicians in postpartum group counselling sessions at one practice also allowed for billing and pooling of funds that contributed to nurses’ salaries for their role in facilitating antenatal or postpartum group care.

Discussion

This is the first study to explore the delivery of interprofessional maternity care in Canada, with a focus on the structures and processes employed in these emerging models of care. The findings of this analysis make a unique contribution to the literature by extending existing and mostly anecdotal discourse about IPCMC, that has primarily occurred in the professional and policy realm, to include more systematic evidence from a research. Findings make a unique contribution to understanding variations in the structure and processes of IPCMC in two main areas. First, while interprofessional

collaborative maternity care models share some commonalities, they are also unique; the structural characteristics and the local contexts in which these practices reside shape processes of care in important ways. Second, approaches to IPCMC must reflect and adapt to the ever-changing needs of the communities in strategic ways if they are to be relevant and deliver high quality relational care.

The structural elements of these clinics including their histories, mandates, funding, team composition, client base and community context shaped the care provided in powerful ways and yet there can be a tendency to overlook these important features and focus more on micro-level interactions between clients and providers. While individual level interactions do contribute to relational care, structures, such as the mission, vision and values embraced by a health service, funding arrangements, and team composition, all have the potential to create (or diminish) stability and reinforce common goals (Campbell, Roland & Buetow, 2000). Health service delivery is a function of health systems and because systemic structures influence the way health systems operate, structures affect health and wellbeing making them an important determinant of health (WHO, 2014). The success of woman-centred services at the individual level rests on the contributions of the health system underpinning the provision of services; improving the coordination and integration of health services delivery within the influences of the health system therefore serves as a means to person-centred care (WHO, 2014). These structures are particularly important in models that are innovative and where examples do not exist. Mandates that prioritize care for marginalized populations dictate the organization of provision of services that are flexible and therefore reflect the principle dimensions of quality of care for patients are access and effectiveness (Campbell, Roland & Buetow, 2000). Service provision that consciously considers the needs of individuals

and communities is consistent with aims of primary health care that increasing quality of care, access to services and health equity for all (WHO, 2014).

Health inequities, or social determinants of health are systematic disadvantages in health that result in sub-optimal health (Whitehead & Dahlgren, 2006). Attention to structures that can result in health inequities shifts the focus away from the personal commitment and dedication of providers to also consider the supports that need to be in place to develop and offer high quality interprofessional care. Study findings make a unique contribution by linking some of these fundamental concepts from the organizational literature to IPCMC.

Structures that affect access to services were found to vary with contextual influences, suggesting that guidelines for developing interprofessional collaborative maternity care practices should be flexible to allow adaptation to local context. While each of the practices examined shared commonalities, they arose from different needs within the community served. This reflects principles of primary health care that address fit and responsiveness of care to local community needs as indicators of quality of care (WHO, 2006) and is consistent with principles of The Alma Alta Declaration and the Ottawa Charter for Health Promotion that position health equity as a requisite for health (WHO, 1986; WHO, 2006). Findings from this study underscore how women with complex lives due to isolation or distance from services, challenges related to substance use, poverty or immigration status were provided relational care and support within the IPCMC practices that reflected the needs of subgroups of women within the communities served. This may be one approach for improving access to care and reducing health inequities.

Study findings showed that the interprofessional collaborative maternity care practices evolved over time and in strategic ways in order to serve local populations. This finding is consistent with the notion that effective health services are complex systems that must adapt over time in order to be responsive to needs (Hawe, Shiell, Riley & Gold, 2004). Standardizing care without recognizing desirable adaptations and local assets denies opportunity for more meaningful approaches to health care (Litaker, Tomolo, Liberatore, Strange & Aron, 2006). Understanding the need for adaptation requires an appreciation that systems, such as primary care practices, are dynamic and ever changing consistent (Manson, 2001; Phelan, 2003). Complexity theory recognizes that systems are nested within other systems (i.e. primary care practices within the larger health care system), each interacting with the other and contributing to the need for adaptation (Litaker et al., 2006). According to Hawe, and colleagues, health services are dynamic and ever changing with implications for how they are structured (Hawe et al., 2004). Findings from this study suggest that the concept of complex adaptive systems is an appropriate approach for thinking about IPCMC. The strategic and creative approaches employed by these practices to supporting sustainability should be considered valued characteristics of these models of care.

Primary care practices in general are adaptive systems because they are a collection of interconnected agents who impact each other, resulting in unpredictable responses to situations (Plsek, 2000). IPCMC practices specifically, have an additional layer of complexity by virtue of inclusion of different professional groups that come with varied educational preparation and perspectives influencing how they manage care. Consistent with our findings, the interprofessional literature also points to the need for group members to be open to varied perspectives and underscores that reaching

consensus on approaches to care requires flexibility and willingness to compromise without territorialism (Clements, Dault & Priest, 2007). Our findings indicate that IPCMC practices demonstrated relational care and a woman-centred approach through responsiveness to evolving needs of the community, also making explicit the connection between adaptive models and woman-centred maternity care.

These IPCMC models delivered Primary Health Care as accessible, community-based services that fit with local needs (WHO, 2006). Primary Health Care is associated with high quality care (Beaulieu et al., 2013); is accessible, comprehensive and continuous (Kringos et al., 2013); and is focused on prevention, health promotion and education (Samuelson et al., 2012). By examining the structures and processes of care of these practices, we are able to demonstrate that the principles of Primary Health Care can be maintained in IPCMC practices. This was evidenced by efficient access to required medical consultations, continuity of care across the team and through the attention given to providing individualized education and support to patients and families in their unique and personal contexts. These efforts can be understood as attempts to improve access to seamless care and reduce health inequities, important global health and social goals (WHO, 2006). Attempts to improve access were particularly evident in the rural communities studied where, as in other rural areas, access to specialists was limited (Ministry of Health BC, 2015; Stoll & Kornelson, 2014). Efforts that united providers and engaged the community to maintain services demonstrated commitment to health equity with an aim to provide access to maternity services close to home consistent with recommendations for maternity care (Iglesias et al., 1998; Miller et al, 2012; SOGC, 2008).

Processes of care that attend to social situatedness identified in this study extend understanding about how collaborative teams can provide primary care that is personalized and relational. Although the majority of providers in these practices were midwives, inclusion of interprofessional team members with different expertise and skill sets enriched the care provided and promoted efficient access to consultations consistent with recommendations in the literature outlining the importance of mutually supportive referral systems for successful primary care (Hixon & Maskarinec, 2008). These findings are also consistent with a recent review, which indicated that collaborative models that include midwives resulted in optimal maternal and neonatal outcomes (Renfrew et al., 2014). The findings of our study supporting the idea that collaborative maternity care teams do not necessarily need to be a balance of providers from all professions but that there is value in the contribution each can make to the overall provision of care.

Relational care is characterized by development of an interpersonal relationship between provider and patient built on trust and a sense of responsibility (Saultz, 2003). There is a literature in support of relational models of care but these approaches are not consistently apparent across professional groups. The relational core of nursing as a caring profession is well documented (Boykin, Schoenhofer, Smith, St. Jean, & Aleman, 2003; Jonsdottir, Litchfield, & Pharris, 2004). It is fundamental to midwifery philosophy as well (Noseworthy, Phibbs & Benn, 2013; Thachuk, 2007). While also appreciated by many physicians, models of medical care (including fee for service approaches) may work against the time needed to provide care that is relational and dialogic. In this study, physicians articulated the value of time in relationship development with women recognizing that it could not be accomplished to the same extent in faster paced traditional medical care, suggesting that funding structures of IPCMC must take this

reality into account.

Thachuk (2007) identified that relational models of midwifery emphasize the social situatedness of the individual, further emphasizing the importance of context. IPCMC practices explored in this study demonstrated a high level of commitment to the needs of specific populations (including immigrant, low income and rural populations) and approaches to care that aimed to increase access to services. Noseworthy, Phibbs and Benn (2013) link cultural context to decision-making. They highlight that decisions made are often influenced by social situatedness and that relational models of care recognize these influences (Noseworthy, Phibbs, Benn, 2013).

Our findings elucidate the ways in which social locations influenced access to maternity care and how interprofessional maternity care groups can develop and operationalize models that reflect the needs of specific populations, contributing to relational care when a common philosophical understanding about normal birth and appreciation for contextual influences exists. As detailed elsewhere (Malott, Ford-Gilboe, Kothari & Kaufmann, 2016b), this implies that having a common philosophical view may be more important to continuity of care than having the same caregiver or care by one professional group. These findings challenge the dominant model of midwifery that prohibits shared care with providers who are not midwives unless approved as an alternate practice arrangement. While the usual model is intended to promote continuity of care provider as a means of achieving relational care, findings of this study suggest that relational care is not dependent on continuity of care provider or profession and that imposing these limits can reduce access to services if patients are required to go outside the group for medical care. This may be most difficult for marginalized populations, suggesting that IPCMC may be particularly beneficial for patients with complex lives

given the capacity of these practices to address a broad range of issues in a seamless and accessible ways.

Conclusion

This multiple case study provides insights about the structural characteristics and processes of care employed in four existing interprofessional maternity practices in British Columbia, Canada. These primary maternity care teams are complex, adaptive models that provide relational, woman-centred care. Examining the unique influences of structures on processes of care in varied settings highlights that there is no one-way to approach interprofessional collaborative maternity care. Models that developed in response to shared goals and a desire to address important community needs were consistent with the philosophy of Primary Health Care. There is potential in further exploring the role of these models of maternity care as a feature of Primary Health Care and as a strategy for reducing health inequities among women with more complex needs who are not well served by usual models of care. This study makes explicit relationships between primary health care, health equity and interprofessional collaborative care adding to our understanding of the importance of flexibility in collaborative care models. Examining approaches to continuity that reflect philosophical views and patient-centredness support the notion that relational care is not dependent on continuity of care provider or profession and that organizational models that include interprofessional teams of likeminded professionals have the potential to increase access to services for patients. Information learned from this exploratory health services research may be helpful to governing bodies, policy makers and clinicians interested in identifying elements for consideration in planning future collaborative efforts.

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CHAPTER 3

CONTINUITY IN INTERPROFESSIONAL COLLABORATIVE MATERNITY CARE IN CANADA: FINDINGS FROM A MULTIPLE CASE STUDY

Continuity of care is a phrase that is repeatedly used in the midwifery profession and is most often understood to mean *continuity of caregiver*. Although not synonymous, professional bodies and organizations use the term continuity of care to refer to *relational care* where there is development of trust and a personal relationship between midwives and their clients. The advantages of continuity of care have been described (McLachlan et al., 2008; McLachlan et al., 2012; Waldenstrom, Brown, McLachlan, Forster & Brennecke, 2000) and, within midwifery, continuity is a highly valued aspect of care. However, Haggerty (2003) proposes that the concept of continuity is more than consistency of providers, but can be understood as a broader concept that includes a) *continuity of information*, sharing information across a group of providers; b) *continuity of management*, or providing comprehensive management of health issues; and, c) *relational continuity*, development of a trusting relationship that develops with exposure over time. Reflecting on more inclusive definitions of continuity is an important consideration with implications for different ways of achieving relational care.

Continuity of care in midwifery has been shown to be effective in improving quality of care (McLachlan et al., 2008; McLachlan et al., 2012; Waldenstrom, Brown, McLachlan, Forster & Brennecke, 2000; Waldenstrom & Turnbull, 1998). As a fundamental tenet of midwifery in Canada, continuity has most often been operationalized as care by a small number of midwives (Canadian Association of Midwives [CAM], 2015). In some jurisdictions this definition further specifies that care be restricted to no more than 4 midwives (College of Midwives of Ontario [CMO], 2014)

in order to promote a relationship between the midwife and the client. However, we do not know if these limitations actually result in more relational care or if broader definitions of continuity provide the same benefits while allowing midwives to reach more women through interprofessional collaboration. To date, very little research has examined continuity of care in interprofessional collaborative maternity care practices in the Canadian context.

Collaboration, as it currently exists, usually involves midwives consulting or working alongside other providers rather than sharing care across professions. *Interprofessional* collaborative maternity care has the potential to maximize resources and provide sustainable services. However, whether and how continuity can be provided in these models, and whether women will be satisfied with care from providers from different professional groups, is not known. This study was designed to address these gaps. Specifically, the purposes of the study were to: a) explore the factors influencing how collaborative care is organized and enacted and; b) to understand whether and how midwives can provide relational care in interprofessional collaborative maternity care (IPCMC) practices in ways that are positively evaluated by women and staff. In this manuscript, we present findings related to continuity of care in 4 IPCMC practices in British Columbia, Canada, drawing on the experiences of staff and recipients of care in these organizational models. Structural characteristics of these varied models (Malott, Ford-Gilboe, Kothari & Kaufman, 2016a) and facilitators and barriers to collaboration (Malott, Ford-Gilboe, Kothari & Kaufman, 2016c) are addressed elsewhere.

Background

Midwifery is a growing profession. There are approximately 1500 registered

midwives in Canada with approximately 100 new graduates joining the profession across Canada each year (CAM, 2016). It is, therefore, reasonable to expect their increased involvement in meeting the needs of Canadian women. In Canada, midwives are autonomous primary healthcare providers who provide comprehensive care during pregnancy, birth and the postpartum period to mothers and babies (CAM, 2015). Midwifery is publically funded and integrated within the healthcare system. The profession is grounded in the foundational belief of person-centred care and based on the tenets of informed choice, choice of birthplace and continuity of care (CAM, 2015).

There is a large body of literature supporting the benefits of continuity of care but the current definition used by midwifery governing bodies is narrow, particularly in light of literature that speaks to a broader conceptualization of continuity. According to Haggerty and colleagues (2012), repeated contact enhances an understanding of the whole person and contributes to development of rapport and connection. The partnership that develops between the midwife and the patient through this repeated contact is based on the continuity of care provided (Bourgeault, 2006; Sandall, Bourgeault, Meijers & Schuecking, 2001). Continuity of midwifery care is associated with increased patient satisfaction as well as improved birth outcomes (McLachlan et al., 2008; McLachlan et al., 2012; Waldenstrom, et al., 2000; Waldenstrom & Turnbull, 1998). This was confirmed in a 2015 Cochrane review of midwifery-led care that found higher satisfaction among women who experienced midwifery care compared to standard medical care that did not include continuity of care (Sandall, Soltani, Gates, Shennan & Devane, 2015). This review looked at caseload midwifery in particular. Definitions of caseload midwifery vary in the literature but are generally defined as care by 2-3 midwives with a named midwife as lead in organizing care (Hartz, Foureur & Tracey,

2012). Caseload models of midwifery care are associated with high levels of continuity (McLachlan et al., 2012) and, therefore, much of the research examining these models claim benefits of continuity. However, identifying the discrete impacts of continuity is difficult since continuity is highly related to many aspects of midwifery care that also show evidence of benefit.

There is evidence supporting positive impacts of numerous elements of midwifery care, but no one aspect of midwifery care has been shown to be more critical than the others. Caseload midwifery has been associated with increased satisfaction; however midwives self-select to caseload midwifery and those who do may have specific attributes and beliefs that contribute to the connections they make with clients (Sandall et al., 2015). Personal attributes of midwives have also been identified in the research literature as contributing to relationship development (McLachlan et al., 2012). For example, recipients of care rate their satisfaction higher when midwives are considered kind or empathetic (Goberna-Tricas, Banus-Gimenez, Palacio-Tauste, 2011; Shafiei, Small & McLachlan, 2012; Waldenstrom, 1998).

There is evidence that patients who experience fewer interventions rate their experiences of care more favorably, suggesting that continuity of a low intervention philosophy may be more important than continuity with a care provider (Edmondson & Walker, 2014). Brio et al. (2000) linked continuity of care provider in team midwifery models with low intervention rates. However, this could be more related to continuity of a philosophy of minimal intervention typical of midwifery care in general and less to do with continuity of the same care provider.

Longer appointments and more time with providers have also been associated with increased satisfaction among women in team midwifery care compared to 'standard

medical care' (Waldenstrom, et al., 2000). Interestingly, recipients of care in these team models saw more providers than those in 'standard care' but valued the relationships developed. This calls into question whether continuity of care with a discrete number of care providers is the essential element of good care or if the relationships that are facilitated by personal attributes, a shared philosophy of minimal intervention and time spent together are, in fact, more important. Clearly, there are multiple factors that play a role in developing partnerships and influence satisfaction with care.

The benefits of continuity of care found in the research are not necessarily restricted to women cared for by groups of no more than 4 midwives. Early studies identified the benefits of being known to a slightly larger group of 4-6 midwives (Flint, Poulengeris, Grant, 1989; Rowley, Hensley, Brinsmead, Wlodarczyk, 1995; Tinkler & Quinney, 1998; Waldenstrom & Turnbull, 1998). Furthermore, not all studies that report benefits of continuity are clear about the number of providers women encounter (Forester et al, 2016; Johnson, Stewart, Langdon, Kelly & Yong, 2003).

Homer and colleagues described the benefits of team midwifery where continuity was defined as a continuous organizational structure and an approach to care based on a belief of birth as a normal life event, as opposed to having known providers in the intrapartum period (Homer, Davis, Cooke & Barclay, 2002). One participant in this study said she appreciated the idea of knowing the midwives prior to labour but was uncomfortable with the midwife who attended her birth, indicating that being known does not necessarily equate with a strong relationship (Homer et al., 2002).

While there are documented benefits for recipients of care and the relational element of midwifery can be the most rewarding aspect of partnership for midwives, Bourgeault and colleagues found that midwives experience fatigue related to continual on

call requirements, resulting in a “caring dilemma” as they attempt to find ways to provide continuity without exhaustion (Bourgeault, Luce & MacDonald, 2006). This dilemma and risk of burnout related to providing continuity of care has long been described in the literature; having control over how work is organized has been found to reduce these effects, contributing to greater satisfaction among midwives (Sandall, 1997). There are benefits to caregivers when the approach to continuity allows for some degree of shared care, flexibility and work-life balance (Edmondson & Walker, 2014). This has been understood for many years. Early work by Stevens and McCourt (2002) in the United Kingdom found that peer support and having the opportunity for professional development were aspects of caseload midwifery that were satisfying, but long hours and demands of women were drawbacks.

This manuscript is a detailed report of findings from a qualitative multiple case study of interprofessional collaborative maternity care (IPCMC) practices involving midwives undertaken in an effort to understand the extent to which these models include continuity of care and how the approaches used are received by recipients of care and providers. These cases or units of study are described in detail along with a description of the study design, interview schedules and approaches to sampling in the first manuscript within this series (Malott, et al., 2016a). A brief overview of methodology and design are provided here.

Method and Design

A qualitative multiple case study design was used to explore variations in 4 interprofessional collaborative models of maternity care. Case study is commonly used in health service research to learn about an issue thorough a detailed examination using multiple sources (Stake, 2006). Exploring different sources allows for triangulation of

data to substantiate findings and promote rigor and trustworthiness through the analysis by offering multiple perspectives (Flick, 1992; Stake, 2006).

Multiple case study recognizes that a single approach to addressing a complex issue does not work in all situations and that a phenomenon is better understood through consideration of varied examples (Stake, 1995, 2006, 2010). The employed approach in this study integrates multiple sources of data while emphasizing the importance of context. This is appropriate in exploring varied models of interprofessional maternity care since the context of each practice is unique and requires different considerations, contributing to richer findings.

The cases included practices in British Columbia (BC) because this province has the longest history of IPCMC practice in Canada. Consequently, there has been growing interest and mentorship in establishing more practices in BC, allowing for comparisons while containing the inputs of provincial and political influences. Each practice had a different mandate and history, a unique community context, served a different population, and organized care in different ways. The cases have been labeled for reference based on key attributes of the practice. They are referred to as the *Midwife-Physician Partnership*, the *Shared Care Model*, the *Interchangeable Team*, and the *Patient-Partnership Model* (Table 1).

Table 1

Characteristics of Four Interprofessional Maternity Care Practices

	Interchangeable Team	Shared Care Model	Midwife-Physician Partnership	Patient Partnership Model
Date Opened	2003	2011	2010	2013
Setting/Community Context	Metropolitan City Expensive housing Multiple services	Urban/Growing Affordable housing High crime area	Small city Limited public Transit	Small town/Rural area Recreational Focus
Mandate	Access for underserved, multi-ethnic community	Accessible, integrated health services	Extend woman-centred maternity care	Maintain rural obstetric services
Client Population	Recent immigrants Ethnically diverse	Ethnically diverse High rates of substance use	Less ethnic diversity Low income	Least ethnically diverse
Team Composition	Physicians (2) Midwives (9) Nurse Practitioners (2) RN/Lactation Consultants (2) Doulas (40+)	Physicians (3) Midwives (6) Nurse Practitioner (1) RN/Lactation consultant (1) Doulas (many)	Physicians (2) Midwives (2) Lactation consultant (1) Doula (1)	Physicians (2) Midwives (4) RN or Doula Facilitators (3)

Data Collection

Sources of data included: a) a period of observation at each practice to appreciate contextual influences; and b) semi-structured interviews with administrative staff and caregivers (n=40) and women (n=33) as recipients of care to learn about their experiences within the model. Interviews were conducted with all available staff (5-10 per practice) and a convenience sample of English speaking recipients of care who presented for care during the observation period (5-10 per practice). About half (45.5%, n = 15) of these women were multiparous, 9 % (n =3) self-identified aboriginal, 9% (n =3) lived in a rural

community, and 6% (n = 2) were newcomers who have lived in Canada for < 5 years. The majority (75.8%, n = 25) had some post- secondary education and reported annual household incomes > \$50,000 Canadian. Staff participants included all those who consented and were present during my observational period in the practice with a total of 8 physicians, 22 midwives, 2 nurse practitioners, 1 registered nurse, 2 doulas and 5 administrators.

Ethics approval was obtained from the appropriate boards. The approved letter of information and consent to participate was reviewed with each participant prior to the interviews and written consent obtained. Participants were reminded of their ability to withdraw consent at any time. Interviews were audio-recorded with the participant's permission and transcribed for accuracy. Identifiers were removed and participants were given identification numbers and pseudonyms to maintain confidentiality.

Data Analysis and Interpretation

Thematic analysis was conducting of interview transcripts, observational field notes, documentation from an applied observational grid, and analytic notes. Consistent with case study methodology (Stake, 2010), NVIVO-10 was used to organize data and identify themes at each practice. Preliminary codes were derived from the research questions, which related to influencing contextual factors, enactment of a person-centered philosophy and continuity, and the experiences and satisfaction of staff and recipients of care. Line-by-line coding of the transcripts and observational memos allowed for differentiation of the themes and identification of supportive codes and categories by highlighting patterns in the data (Crabtree & Miller, 1992). Analytic notes were used to document the coding process and capture thoughts and insights that were compared across practices for similarities and differences. Organizational and policy documents

were integrated into the analysis where needed to understand the larger context.

Interpretations were verified through repeated debriefings with team members to explore and clarify various interpretations of the data in order to promote rigour. Coded data were synthesized into descriptive narratives for each practice, which provided opportunity to reflect on how patterns and categories were supported by the data.

Analytic notes were integrated into the analysis to substantiate relationships between concepts across the practices.

Findings

The thematic analysis revealed that varied types of continuity were being enacted within the interprofessional practices consistent with the 4 types of continuity identified in the literature: continuity of philosophy, continuity of information, continuity of management and relational continuity. The phrase ‘continuity of caregiver’ is used interchangeably with relational continuity but in the context of this study continuity of care provider is seen as a means to achieving relational continuity. Therefore, these types of continuity have been used to organize the findings.

Continuity of Philosophy

Continuity of philosophy refers to a shared belief or set of values that underlie principles and approaches to care. Having common philosophical beliefs and goals of person-centeredness appeared to be essential in these collaborative models, and provided a foundation for managing clinical issues in ways that were consistent across and within professions, and reflected shared control; consistency and predictability; and relational approaches to care.

Continuity of philosophy resulted in shared understandings about birth and care across the interprofessional team. The program websites for each practice described their

commitment to normal birth and minimal intervention, such that patients expected these qualities to be present when they enrolled for care. Some women chose the programs specifically because they sought out caregivers who shared their views around birth. Knowing that they valued normal birth fostered confidence, which contributed to the development of a trusting relationship. Low intervention, foundational to midwifery care, drew physicians who shared these philosophical beliefs to practice in these programs, contributing to a consistent approach used by providers when discussing issues with clients. Dan, a physician, observed, “We all had an emphasis on informed choice, avoiding harmful interventions and more of a family-centered kind of maternity care practice. So we had a shared kind of approach to care”.

Person-centredness was a philosophical belief underpinning the delivery of care by all members across the practices. Clients described care as being more laid back compared to traditional medical practices. The non-authoritative approach was consistent with the midwifery philosophy and was shared by the physicians in the groups. Many recipients of care appreciated having control in their decision-making. For example, Giselle, a recipient of care reported “they laid everything out on the table and give you options. There wasn’t really a leader; it’s more you’re in control of what you want... rather than the doctors or midwives”.

Consistency of approach that reflected a basic philosophical view was also important to recipients of care who were seen as “all on the same page”. Participants compared continuity of philosophy they experienced in the collaborative practice with inconsistencies in other models. While some variations in delivery existed across members of the group, they were thought to have less to do with the professional group they belonged to and more to do with individual personalities. “[The doctor] kind of

addressed things differently than say [Midwife] would; but it's all the same information" (Giselle).

The relational model of care being implemented with clients extended to the nature of the group dynamics through demonstrations of kindness, respect and genuine appreciation within health care team. Team members showed friendly gestures, interest in the lives of group members and offered complements, indicating a level of caring that contributed to a sense of belonging that included students. An observed educational session led by a resident demonstrated how attendees were engaged, inquisitive and appreciative of the session. Valuing the contribution of all group members demonstrated continuity of philosophy at the level of team interaction, and led to greater satisfaction among the team and to a feeling of safety that some believe extended to recipients of care: "Our clients see us giving one another hugs, our clients feel the warmth and they feel a part of a family of caregivers" (Nyah, Midwife).

Continuity of Information

Continuity of information refers to the availability of a client's medical history, documented care and social information that provides context for care and decision-making so that repeating information is unnecessary. It also refers to an approach for sharing such information to support decision-making.

Clients appreciated the time taken by team members to become familiar with their individual situations. People in care described how the team knew their issues, how comfortable they felt calling in to book appointments and how well received they were by the administrative staff. All practices used the same electronic medical record (EMR), which, in some cases, was not supported by the larger system in which they worked.

This EMR was considered critical to the success of the program because it was

compatible with Apple TM products, which were used by group members as home and mobile devices. Information in this system was accessible to the entire group 24 hours/day from anywhere in the world, providing continuity of psychosocial and medical information but the extent to which non-clinicians used it varied. For example, members at the *Interchangeable Team*, including administrators, used the EMR to purposefully personalize interactions with clients, identifying them by name on arrival, and entering psychosocial information (such as meaningful family events) in the EMR that they referred to on follow up encounters. They also used the EMR to follow up on reports and laboratory results and missed appointments.

The availability of the EMR was "critical" to on call providers. When patients paged, the provider reviewed the record including the updated management plan to reduce potential errors and promote seamless care. A physician describes how this worked: "Discussions are tagged to the chart so you can look up other information that really helps make appropriate decisions or provide input into the discussion" (Mysha). Communication between intrapartum and antepartum providers was also facilitated by the EMR. A written handover for on call providers was included in the EMR and could be accessed as required to determine necessary follow up. If an informal consultation was required providers accessed the group through the EMR messaging system and received direction, which was then documented in the record. Messages were tagged to the medical record, which helped consultants advise appropriately, contributing to overall patient safety. This communication also provided an opportunity for group discussion, which resulted in reciprocal learning across professions.

Providers at each practice reviewed the record before appointments, enhancing their familiarity with the client's personal situation. Physical findings, discussions,

decisions and plans of care developed at each visit were documented within the record. This written communication was complemented by regular team meetings that informed the group of particular needs of people in care. This approach was well received by patients who reported being aware of the continuity of information in place during care and but also surprised by how well informed their caregivers were of their clinical situation. “When I came in and somebody else was seeing us, they already knew everything about us. They had notes from my previous pregnancy so they were able to pull up those records and continue on almost” (Shaniqua).

The ways in which providers incorporated information into discussions with clients influenced how they made decisions about their care and their reports of feeling supported the shared decision-making process. Early planning meetings for each of these practices focused on reaching consensus about how to standardize care and address topics of discussion in order to be consistent. Team members felt this consistency promoted trust across the group contributing to confidence in care.

In reality, this type of consistency developed over time within the team as they worked together and learned from one another. Dakota, a physician, reflected on how his approach and that of his midwifery colleagues had evolved: “So I maybe have become more ‘midwiferish’ than ever, and they’ve learned to think in the same kind of critical diagnostic sort of way that physicians are trained to think. But a lot of it’s the way you communicate”. Team members reported changing their language after exposure to the other profession resulting in a more consistent approach across the team. Clients felt that shared decision-making was supported regardless of the professional orientation of their provider. Group discussions, mentorship and consistency in approach to communication promoted consistency in how information was shared with clients.

Continuity of Management

Continuity of management refers to the process of developing and sharing a plan of care in that is known across the team. This was accomplished by defining the process early in pregnancy and structuring care to promote a comprehensive approach that was responsive to patient needs. Continuity of management is grounded in clear communication about the approach to care, adequate time, and a systematic approach to coordination and consistency of care.

For recipients of care, a key to accepting for the model seemed to be in having systems that were in place to help people understand maternity care and the available options so they could decide whether or not the model offered met their needs. Prospective clients at each practice were informed in their first visits about their options for maternity care in British Columbia. These included care by a general practitioner, an obstetrician, a midwife in traditional independent practice or care in the collaborative. The details of how the collaborative worked were discussed and people were given the option to participate or they were referred to another care provider. Prenatal care and negotiating the system were foreign experiences for many new clients seeking care so describing how the system worked was provided in first visits.

Longer visits contributed to consistency of relational care. The models included the option of 30-minute individual visits or 90-120 minute group appointments. Both were longer than typical medical appointments and longer visits are consistent with the traditional midwifery model. Clients reported that time spent with caregivers helped build relationships and a friendly connection. Recipients of care consistently reported “not feeling rushed” or that caregivers were too busy to answer questions or check in with them in a meaningful way. “I took the information and made my decisions. I never felt

pressured”(Yasmin). This was particularly true for those within group care where discussions were relaxed and interactive. Caregivers appreciated the luxury of time as well. Longer visits gave providers an opportunity to really connect with patients. Providers who had worked in traditional prenatal clinics as well as IPCMC models with longer visits compared their relationships with clients in both settings and attributed a richer understanding of the patient’s context to the “luxury of time”.

Structuring care to ensure coordinator and consistency was essential to continuity of management. Flexible sharing of roles and responsibilities was a key strategy used to increase continuity within and beyond the maternity groups. The *Interchangeable Team* recognized the number of patients without family care and created a family practice where team members worked in both clinics, promoting continued familiarity for clients, which helped families negotiate the system. Bela, a physician, described this approach as follows:

So our lactation consultant also runs the immunization clinics in the family practice; our nurse practitioner works primary care in the family practice, but also does post-partum care upstairs in the Birth Program; and [physician], who does births upstairs is the family doctor downstairs. She runs the whole [medical] clinic”.

Coordination of services required monitoring and tracking of records (such as home birth list and delivery summaries) that evolved over time. In the *Midwife-Physician Partnership Model*, midwives rotated through one-week assignments as designated coordinators of postpartum care to ensure no clients were lost to follow up during the week following their birth. Office administration participated in ensuring that they were seen in clinic thereafter. Coordinating the postpartum visits was a form of continuity of

management where there were checks and balances in place to promote continuity of care over time. The EMR system with the inherent continuity of information enabled this continuity of management. A midwife who lead the coordination of one practice noted that this work was “exhausting” and reinforced the importance of “having to stay on it 24/7”.

The importance of consistency was acknowledged by the staff at each practice and related to promoting trust and confidence. They recognized that when the approach was predictable, a standard of care was maintained and there was continuity in how care was managed. It was important to have a unified front and standard that did not undermine any one member of the group so that patients had confidence in the team and in the shared management of care. Consistency in how consultations were managed allowed midwives to prepare clients contributing to confidence in the entire team.

Continuity of Caregiver as a Means to Relational Continuity

Clients and caregivers in the collaborative groups valued the way care was “shared differently”. Subthemes related to continuity of caregiver contributed to understanding how relational continuity is promoted. These subthemes included the impact of meeting many providers, and other priorities beyond the number of caregivers.

Meeting Many Providers. Women varied in whether or not they saw continuity of caregiver as important based on their views about how care was shared, how well known clients felt, confidence in the team, and the extent to which the care was organized around their needs. Care was shared differently across the practices depending upon group composition and approach to care. Midwives provided the bulk of care in the model at the *Midwife-Physician Partnership* with one first trimester visit and ongoing consultation by the same physician as required. Other practices shared care across

professions in either individual or a group care model called Connecting Pregnancy (BC Women's Hospital, 2006). Women generally alternated between 2-3 individual providers for antenatal care or teams of 2 providers in the case of co-facilitated group care.

Intrapartum care providers at each practice shared on call responsibilities. The *Shared Care Model* and the *Interchangeable Team* also offered doula care for labour support.

Many patients appreciated the support of a doula who was focused on their needs in labour, rather than on conducting the birth. Lucia remarked, "The doula is one I knew most. She didn't have paperwork or technical stuff to worry about, just me. I liked that."

The continuity provided by the doula was particularly important for clients who did not speak English, since doulas were often matched to provide support in the client's preferred language.

The practices varied in size from 5-11 on call providers so a 'Meet the Team Night' provided a chance to become familiar with the group. The idea was to provide assurance that the philosophical approach was consistent and that there was a system in place for sharing information to ensure all providers knew the plan of care for each person. Meeting everyone before labour was more important for some recipients of care than for others. For some, meeting many providers was perceived as a benefit, even if they initially had reservations, as long as the essential philosophy around birth was consistent. "At first I didn't like it when we kept getting different people then I actually preferred that because I learned so much from each of them. It's the bit we valued most" (Sofia). Providers appreciated differing perspectives as well, particularly when team members brought varied backgrounds and experiences to the patient interface that pushed the collective group to think more comprehensively.

Feelings of being known or connected were consistently appreciated across the practices but how this was accomplished varied. While some people reported they did not need to see the same provider in order to feel connected, others, particularly those who had experienced trauma or other difficult life events, valued having fewer providers limiting the need to share their histories, which contributed to developing trust. Some clients who expressed fear and anxiety related to pregnancy reported this was reduced with continuity of provider, emphasizing the importance of relational continuity. Darah noted, “It’s one of the more vulnerable time in your life when you’re delivering, so it’s nice to have someone your trust.” For others, trusting came more easily, sometimes reporting a connection after only one or two visits. Meeting their provider in labour was acceptable for some because they were immediately made to feel at ease. Establishing and responding to needs immediately with confidence promoted a sense of trust and understanding establishing a quick rapport.

Different Priorities. Some clients valued other aspects of care over continuity of provider. Competence of the attendant was sometimes prioritized over being known. Patients described being focused on labour and needing a skilled provider. For others, flexibility in scheduling was more important. Having to accommodate the caregiver’s schedule was difficult for many people due to work and family schedules. Maintaining appointments was difficult when schedules changed, children became sick or if transportation was limited. “I can’t always say when I can get a ride to clinic, that makes scheduling appointments really difficult” (Lubna). These challenges reflected the population served and the realities of socially complex lives, particularly within the *Shared-Care Model* and the *Interchangeable Team*. Although flexibility in scheduling was important, it often meant that clients met several people, because missed visits were

rebooked when there was an opening often with an unknown provider. One participant described feelings of frustration in never having her partner at visits due to scheduling; despite having consistent care providers, she did not feel she developed a relationship with them indicating that continuity of carer does not guarantee rapport.

Clearly, people's expectations and needs around continuity varied widely. Having a model that could be adapted to individual needs appeared to be important to recipients of care and providers alike.

Discussion

Research in support of continuity is strong but variations in how continuity is defined make it difficult to determine which aspects of continuity have the greatest impact on outcomes including satisfaction for recipients of care. While continuity often refers to care by a small group of providers (College of midwives of Ontario, 2014; College of Midwives of BC), as the results of this study show, it can also refer to sharing of information, communication of care management plan and consistency in how care is delivered (Haggerty et al., 2003). To date, very little research has been conducted examining continuity of care in interprofessional collaborative maternity care practices in the Canadian context adopting a broad perspective about how this might be enacted. Our study contributes explicitly to understanding of the different ways continuity is enacted in IPCMC practices, specifically through continuity of information, care management and philosophy, and how these approaches to providing continuity are evaluated by recipients of care.

Harris and colleagues (2012) conducted the only evaluation of an IPCMC in Canada involving midwives. Comparing perinatal outcomes of 1238 women in the first interprofessional collaborative maternity practice in BC with a matched group of the

same number of patients who received standard care, they found reduced cesarean birth rates, shorter hospital length of stay and higher rates of exclusive breastfeeding in women in the IPCMC practice (Harris et al., 2012). While the study design did not identify specific factors that were responsible for group differences, the researchers noted that self-selection and commitment to physiologic normal birth; close working relationships across the team; and availability of the electronic medical record (EMR) promoted support, communication and consistency in care across the team (Harris et al., 2012). These benefits were also demonstrated in this study as well across varied interprofessional collaborative models that varied existing in different types of communities, extending support for IPCMC approaches to care in different contexts.

Expressed satisfaction and positive evaluation from most women in our study provides evidence that meaningful, relational care is provided in IPCMC practices. The midwifery literature attributes benefits of the relational model to the partnership that develops through continuity of care by a small number of providers, contributing to an enduring attachment to this narrow definition of continuity (Bourgeault, 2006; Sandall, Bourgeault, Meijers & Schuecking, 2001). However, most patients in the IPCMC practices studied were accepting of and positive about continuity of information and management across groups of more than four providers if care is a) there is continuity of philosophy, b) care is relational, and c) if the approach to continuity and the expectations of the model are clearly identified. Continuity of philosophy is, therefore, foundational in providing coherence across all aspects of care.

Participants did not object to meeting new people if information was shared and, in some cases, wanted appointments with all team members, consistent with findings reported by Harris and colleagues (2012). We found that many women in IPCMC valued

the input from other providers, citing the opportunity to meet many team members as optimizing their experience. Other researchers have reported patients' appreciation of the involvement of other staff and providers who enhanced access to services and made them feel welcome (Infante, Proudfoot, Powell et al., 2004). Some research suggests that extensive continuity can be problematic, with some patients citing over-familiarity and complacency with their concerns as challenges with care by the same provider over time (Infante, Proudfoot, Powell et al., 2004; Mercer, Cawston & Bikker, 2007). Findings from this study also indicate that choice in scheduling may be more important than continuity of provider. This is consistent with research that suggests that young employed patients with minor or acute health concerns prioritized convenient access to services over continuity of care providers (Boulton et al., 2006). However, we found that the ideal number of caregivers for women varies with their individual needs and preferences, suggesting that flexibility and tailoring of care is important. For some clients, particularly but not exclusively those who are living in vulnerable conditions, relational care with a small number of providers is particularly important in generating trust and emotional safety. This is consistent with emerging literature on Trauma-and-Violence-Informed Care (TVIC), an approach that priorities the physical and emotional comfort of patients as a universal approach with all clients and in all settings (Varcoe, Wathen, Ford-Gilboe, Smye & Browne, 2016).

Relational care refers to an ongoing therapeutic relationship with one or more providers (Reid, Haggerty & McKendry, 2002). It is a subjective term and is facilitated by continuity of philosophy, information and care management. The ability of patients and providers to make a connection depends on development of trust and confidence. Confidence is generated when patients feel known and their wishes are understood

(Noseworthy, Phibbs, Benn, 2013). Participants in our study reported confidence with the team when information was shared across the team of providers. Findings from this multiple case study indicate that through continuity of information, collaborative care teams can prepare for interactions with patients intentionally demonstrating known information, which contributes to satisfaction and feelings of being known to the team. These data offer evidence useful in developing best practices in collaborative care; increasing our understanding of the different ways continuity can be achieved in team models, while providing meaningful and relational care.

The relational nature of collaborative care also exists among team members. Approaches to communication and interprofessional behavior impact the way collaborative groups interact. The definition of collaborative maternity care proposed by the National Primary Maternity Care Committee highlights the importance of fostering respect for the contribution of all team members (SOGC, 2006). Absence of professional territorialism has been cited in the literature as an essential attribute to promoting respectful and effective teamwork (SOGC, 2006). This requires maturity and confidence, allowing members to be open to learning with and from each other without defensiveness or professional insecurities. Identifying competencies for effective teamwork are required (Renfrew et al., 2014). Findings from our study reinforce results of collaborative care research showing that when IPCMC teams release their professional identity, and engage in reciprocal mentorship and support, the quality of care to patients is enhanced and team members are more satisfied (SOGC, 2006).

While providers recognize the benefits of relational care, compassion fatigue and burnout can occur if there is an imbalance in managing work-life demands (Bourgeault, Luce, & MacDonald, 2006). The sustainability of maternity care providers requires

attention to the elements of care that bring satisfaction to providers as well as those that are appreciated by recipients of care. Our findings suggest that if there is a shared philosophy, if care is predictable and consistent across providers, and if there is commitment to communication through an effective electronic medical record and regular team meetings, care in IPCMC practices can be continuous, seamless and fluid while promoting work-life balance for providers.

Limitations

IPCCM practices that involve midwives are unique. As such, women who receive care in these models may feel special or preferred if they believe that they have an opportunity to develop a relationship with a team of providers who they believe are more accessible than those in usual care models. Websites of the IPCCM practices included in this study boast a person-centred, team approach aimed at meeting the needs of patients and their families (AppleTree, 2016; Community Birth Program, 2014; Fraser Valley Maternity Group, 2014; South Community Birth Program, 2006) setting expectations for engagement from the outset. If expectations for positive experience were established, participants may have expected those experiences to be enacted biasing their assessment of the experiences toward the positive. Although all patients attending clinic during the one-week observation and interview period were invited to participate in this study, involvement was voluntary. Interviews were private and confidential, but it is possible that those who have negative experiences did not come forward. Interviews with recipients of care provide some initial evidence of the benefits of inter-professional collaborative maternity care for patients, but specific outcomes were not measured. Future research that assesses the impacts of these models of care on patient outcomes, in comparison to standard models of care, is needed.

The short period of one-week immersion is also a limitation. Behaviors of staff during the period of observation may have lacked authenticity since the researcher's presence was known. Immersion over a longer period of time may have provided different findings. However, the duration did allow for observation of a variety of interactions within the clinic setting that were routine scheduled events such as educational rounds, team meetings, and usual clinic waiting room activity. It also enabled time to walk through the neighbourhood to appreciate the setting of each clinic.

Providers who are attracted to collaborative care possess an interest in working with others, recognize the value of different perspectives and seek out these kinds of experiences demonstrating an intrinsic commitment. In this context, it is possible that their interviews may have emphasized the benefits of IPCMC and under-emphasized the challenges of developing and maintaining these alternative models of care. However, commitment is an attribute found to be essential for success of collaborative efforts so presence of this bias is not necessarily negative.

At the time of data collection the IPCMC practices studied were the only practices approved to include midwives in BC. Although they varied in history, population served, mandate, geographical context it could be argued that the approaches to care were similar across some practices. However, the study was developed in a particular context and further variation was not available. Further research including other practices with varied approaches to collaboration would offer additional rich findings.

Conclusion

Midwifery is positioned to play a greater role in the provision of maternity services across Canada. The usual model in Canada includes a commitment to continuity of care, which has generally referred to continuity by a single or small number of care

providers. However, broader definitions that include continuity of information, continuity of management and most importantly continuity of philosophy can offer the benefits of relational care while increasing access to midwifery care. A more flexible approach to continuity that considers the individual needs of populations, communities as well as provider groups can promote sustainability of services while maintaining satisfaction for recipients of care.

This qualitative multiple case study of four interprofessional collaborative maternity care practices demonstrates support from patients and caregivers for a model that includes broader approaches to continuity when providers share a common philosophical belief of woman-centred care. Finding models that enable collaboration but remain acceptable to patients, administrators and caregivers may improve accessibility to care, maximize the input of inter professional maternity care providers, and increase the role midwives play in the provision of maternity services.

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CHAPTER 4

INNOVATIONS IN INTERPROFESSIONAL COLLABORATIVE MATERNITY CARE: SUSTAINABLE OR UNREALISTIC?

Although the number of midwives is growing across Canada, there continues to be a shortage of maternity care providers nationally. Among a number of factors, the most prominent influencing this shortage is the falling number of family physicians who provide maternity care (Goodwin, Hodgetts, Seguin & MacDonald, 2002). Collaboration across professional groups has been cited as a solution for maximizing the contribution of healthcare providers with different expertise and supporting them in the provision of sustainable maternity services in Canada (Society of Obstetricians and Gynecologists of Canada [SOGC], 2006). Policy documents created in the mid 2000s identified strategies for the implementation of interprofessional collaborative practice, yet uptake has been slow (Daly, 2004; Smith et al., 2009).

Innovations in health care are often met with resistance (College of Midwives [CMO], 2009; Daly, 2004). Working with multiple government or institutional level systems poses barriers that can impede efforts. However, factors that enable interprofessional collaboration also exist. Health services research is needed to explore structures and processes that affect the initiation and sustainability of interprofessional collaborative practice.

This study was designed to examine emerging interprofessional collaborative maternity care [IPCMC] practices to determine how and why they were originally created, how they worked, what facilitators and barriers they encountered and the approaches taken to address these barriers. Specifically, the purposes of the overall study were to: a) explore the factors influencing how

collaborative care is organized and enacted; and, b) to understand whether and how midwives can provide relational care in interprofessional collaborative maternity care practices in ways that are positively evaluated by recipients of care and staff. In this manuscript, we address the first of these purposes by describing the barriers and facilitators to collaborative care as identified in a multiple case study of four innovative IPCMC practices in British Columbia (BC), Canada. These analyses build on findings about how collaborative care is enacted and relational care is provided in these models as described elsewhere (Malott, Ford-Gilboe, Kothari & Kaufman, 2017a; Malott, Ford-Gilboe, Kothari & Kaufman, 2017b). In this paper, we explore how barriers and facilitators influence uptake of collaborative care and integrate key policy and practice documents into the analysis to understand influences on implementation.

Background

Collaboration has long been defined as a process that occurs between individuals working together toward a common goal (Henneman, Lee, Cohen, 1995). The terms coordination and collaboration are often used synonymously but have different meanings and implications for practice. According to Axelsson and Axelsson (2006) coordination implies a degree of shared commitment, where group decision-making while communication tends to be informal. Conversely, collaboration requires formal arrangements with shared values and where services are consistent across providers (Axelsson & Axelsson, 2006). In health care collaboration has been described as a more complex process than working in close proximity to another care provider. Some argue that collaboration requires integration at the levels of funding, management and service delivery (Schmied et al, 2010). In the context of this study collaboration always refers to

interprofessional collaboration and refers to providers from different disciplines working together, sharing the organization and management of care using the skills and attributes of group members from different professions to their maximum potential to better meet the needs of patients and communities. Interprofessional collaboration through primary care teams has received attention as a means of increasing access to primary care in general and specifically in addressing a shortage of maternity care providers (Miller et al, 2012; Ministry of Health BC [MOHBC], 2015). In the context of maternity care, it can promote sustainability of providers by allowing shared care and off-call time, enabling work life balance while providing a degree of continuity that is positively evaluated by patients (Malott et al., 2016b). With proposed benefits to patients and providers alike, increasing numbers of interprofessional primary care teams across the country provide examples of ways midwives could have a greater impact on the delivery of maternity services (Aggarwal & Hutchison, 2012).

However, barriers to collaboration do exist. Professional competition, educational differences, lack of understanding of the roles and scope of practice of other providers, ineffective communication, gender, hierarchical relationships, social class, and economic issues have been cited as barriers to collaboration (Peterson, Medves, Davies & Graham, 2007; Sheer, 1996; Stapleton, 1998). Liability issues, interdisciplinary rivalry, philosophical differences and lack of mutual respect further obstruct collaboration (Ontario Maternity Care Expert Panel [OMCEP], 2006; Smith et al., 2009; SOGC, 2006). Loss of autonomy, reduced income, or perceived professional inequities pose additional barriers to collaborative care (Peterson, et al., 2007). Policy documents include strategies for addressing some of these challenges and barriers.

Policy Directives Addressing Collaborative Maternity Care

Numerous policy documents at the national and provincial levels provide directives that promote interprofessional collaborative care (IPC) and help address these challenges. At the national level, the Multidisciplinary Collaborative Primary Maternity Care Project (MCP2) was funded by the Federal Primary Health Care Transition Fund to reduce barriers and identify strategies to promote the implementation of multidisciplinary collaborative primary maternity care models that would address the human resource crisis in maternity care in Canada (Peterson et al., 2007). Like other reports, MCP2 identified regulatory issues and restrictions in scope of practice as barriers to IPC (SOGC, 2006; Ontario College of Family Physicians [OCFP], 2006). Key objectives of this federal initiative were to harmonize standards and legislation between professional groups to enable interprofessional care and support the creation of collaborative practices (SOGC, 2006). This initiative resulted in the creation of a seven-module guide offering clear direction for moving theory to practice in support of changing practice patterns to promote collaboration (SOGC, 2006). These modules are based on the evidence in support of collaboration in health care but lack Canadian specific data since very few collaborative maternity care practices exist in Canada and only one has been evaluated (Harris et al., 2012). The content of the modules is consistent with the literature on collaboration that stresses the need for group member commitment, team building, effective communication and respect (Ahmann, 1994; Coeling Wilcox, 1994; Smith et al., 2009; Vautier, Carey, 1994).

At the Ontario provincial level, the Ontario Maternity Care Expert Panel (OMCEP) was created by the Ontario Women's Health Council to review access to and sustainability of maternity services in Ontario (OMCEP, 2006). Through visits to over

100 hospitals in the province with interviews and focus groups, the panel identified that a reduction in numbers of family physicians and obstetricians providing intrapartum care resulted in decreased access to services, particularly in rural and remote areas of the province (OMCEP, 2006). The panel found that birthing units are clustered in southern Ontario and low-volume units are spread through northern and rural areas. Many of these lower volume hospitals had withdrawn birthing services due to financial pressures, limited human resources and reduced competencies of care providers due to lack of experience (OMCEP, 2006). People reported traveling more than 80 km for prenatal care (OMCEP, 2006). Recommendations from the report were based on the assumption that every patient in Ontario should have high quality woman-centred, primary maternity care that is close to home (OMCEP, 2006). The need for timely and equitable access to care is a consistent theme throughout the national and provincial reports (OMCEP, 2006; OCFP, 2006; SOGC, 2006).

Access to maternity care is a challenge in many areas of British Columbia as well. This is particularly true in rural areas where there are fewer physicians, limited peer support for on-call coverage, and low birth numbers that influence provider confidence (Grzybowski, Kornelson & Cooper, 2007). Fewer births have resulted in unit closures and reduced operative or specialty services further limit the support available to remaining physicians (SOGC, 2008). The key challenge is to implement a maternity care model with a level of service that is feasible and sustainable. According to recommendations from a joint position paper on rural maternity care in Canada, rural maternity care must be collaborative and woman-centred in order to be sustainable (Miller et al, 2012). Specifically, innovative interprofessional collaborative maternity

care (IPCMC) practices are cited as a solution for efficient, high quality, integrated care in rural settings (Miller et al, 2012; SOGC, 2008).

These recommendations are consistent with the vision outlined in the National Birthing Initiative for Canada that identified a need for accessible, family-centred maternity services that are close to home, build on local community resources and are aimed at retaining care providers (SOGC, 2008); and policy documents are in clear support of IPCMC practice models (Miller et al, 2012; SOGC, 2006; SOGC, 2008). Policies by governing bodies of midwifery endorse interprofessional collaboration in principle but they refer to effective consultation rather than sharing care (CAM; 2015) and clearly prohibit shared collaborative care between professions without special approval for pilot projects (CAM; 2015; CMBC, 2014). Support is needed for ongoing IPCMC practices beyond such pilot projects if providers and communities are to commit to these services. Recruitment of providers is dependent on awareness of the benefits of collaborative practice and assurance that professional bodies and approaches to funding and payment structures will not pose barriers to implementation.

Approaches to Collaborative Care in Midwifery

While the usual model of midwifery in Canada involves relational care by a group of no more than four midwives (College of Midwives of British Columbia [CMBC], 2013a), there is a history of midwives collaborating in larger team models. A variety of models of midwifery continue to be employed around the world involving collaboration of group members from different disciplines to varied extents. Some of these models are limited to midwives working with midwives, while others are interprofessional and include midwives. Although caseload midwifery is defined differently in the literature, it generally refers to the provision of antenatal, intrapartum and postpartum care by two to

three midwives (Forester et al., 2016). However, some caseload practices include required involvement of two to three physicians antenatally with additional midwives involved in postnatal care, often resulting in more than six providers seeing the client (Hartz, Foureur & Tracey, 2012). Some studies have included these larger groups in examining outcomes of care including satisfaction with continuity of care (Hartz, Foureur & Tracey, 2012) while others are not clear about the number of providers involved in care (Johnson, Stewart, Langdon, Kelly & Yong, 2003). Clearly, definitions of continuity vary and the value of a set number of providers in care cannot be established.

Team midwifery, commonly practiced outside of Canada, generally includes larger groups where patients may or may not know the intrapartum care provider (Brio, Waldenstrom, Brown & Pannifex, 2003). Studies report greater satisfaction among recipients of care and midwives working in teams when there are consistent philosophical beliefs about supporting physiological birth and minimal use of interventions (Benjamin, Walsh & Taub, 2001; Brio et al., 2003; Waldenstrom, Brown, McLachlan, Forster & Brennecke, 2000).

Primary Care Teams (PCTs) are, in many ways an extension of the ‘team care’ idea but they are interprofessional in nature (Gocan, LaPlante & Woodend, 2014). They are multidisciplinary community-based groups who work together to provide accessible health and social services at first point of contact that are tailored to specific community needs (Health Council of Canada, 2009). While there are a variety of approaches to organizing PCTs they are all forms of team-based primary care included in the national strategy aimed at increasing access to primary care services (Aggarwal & Hutchison, 2012). Primary care is a proactive approach to preventing health problems through health promotion and education (Barrett et al., 2007). It is associated with better health

outcomes, lower mortality and lower overall costs related to health care (Aggarwal & Hutchison, 2012; Axelsson & Axelsson 2006; Rodr guez & des Rivie`res-Pigeon, 2007). A team approach to providing primary care aims to achieve these benefits while promoting sustainable services through maximizing the contribution of less expensive team members with varied expertise (Gocan, LaPlante & Woodend, 2014). Although not usually included, it could be argued that midwives should be included in PCTs with other providers whose involvement and expertise would enable midwives to reach more people, increasing the impact of midwifery on the provision of low risk maternity services nationally. While midwives can and do work in settings across Canada, where co-location exists with other providers, payment and organizational structures are generally not shared and duplication of services and structures do not enable efficiency. As such, the benefits of collaboration have not been fully realized.

Interprofessional collaborative maternity care practices that include midwives are similar to PCTs in that they are part of a broader movement to increase access to primary care with 24/7 availability to rostered patients, reducing the need for more expensive emergency visits. They are effective in the same way that caseload midwifery is since recipients of care know the process of on-call coverage and providers ensure continual on-call coverage of the group. Interprofessional collaborative maternity care practices are similar to team midwifery models in the continuity of information and the way on-call intrapartum care is shared but with IPCMC practices, group members are from different disciplines. Provided that the group members share a philosophical perspective that birth is a normal event in life and value low intervention, informed decision-making and choice for recipients of care, it can be argued that having a mix of professions within a team is not a problem and, in fact, valuable, if they bring varied expertise that increases

the ability to offer more comprehensive care and accessible consultations from within the group. Although few models exist, none have been systematically studied.

While similarities and differences exist between caseload and team midwifery, primary care teams, and interprofessional collaborative maternity practices, IPCMC practices are cited as helping promote sustainability of maternity care providers through support and promotion of work-life balance while providing the benefits of different provider views (Miller et al., 2012). However, little research exists that examines how these collaborative models are enacted and what helps or hinders their functioning.

This manuscript reports detailed findings from a qualitative multiple case study examining four existing interprofessional collaborative maternity care practices involving midwives in an effort to understand the challenges and facilitators for providing collaborative care and the factors that influence acceptance and sustainability of innovative approaches to health services delivery. Although collaborative models of maternity care have been proposed as a means of increasing access to care, no studies have examined multiple existing practices to determine the factors that influence how collaborative care is enacted; the extent to which they include a woman-centred approach; and what barriers and facilitators to collaborative care exist. Exploring these aspects and identifying strategies for promoting collaborative care across interprofessional groups could be of interest to human resource planners, policy makers and clinicians as a basis for considering whether collaborative care may contribute to optimal outcomes and experiences of recipients of care and providers. The cases or units of study are described in detail along with a description of the study design, interview schedules and approaches to sampling in the first manuscript within this series (Malott, et al., 2016a). A brief overview of methodology and design are provided here.

Method and Design

A qualitative multiple case study design was used to explore variations in four interprofessional collaborative maternity care practices in British Columbia, Canada. Observation, interviews and document analysis were employed to collect data from each practice consistent with the case study approach (Stake, 2006). Collection of information through multiple sources allows for triangulation of data to substantiate findings contributing to the trustworthiness of the analysis (Flick, 1992; Stake, 2006). Studying varied IPCMC practices contributed to the overall understanding of collaborative care through consideration of the unique contextual influences of each.

At the time of data collection, only one IPCMC practice involving midwives in Canada had been evaluated and it was located in BC. This practice was chosen because of its reputation within the midwifery community as an established collaborative practice. Mentorship from this group supported the development of other IPCMC practices in BC that operated in unique settings with varying contextual influences. At the time of data collection only four IPCMC practices were approved by the College of Midwives in BC and all were included in this study (Table 1). Each had a different mandate, history, community context, and population served and varied in how they organized their approach to care (Malott, et al., 2016a). Labels have been given to the practices to enable comparisons based on key aspects of their approach. They are referred to as the *Midwife-Physician Partnership*, the *Shared Care Model*, the *Interchangeable Team* and the *Patient Partnership Model*.

Table 1

Characteristics of Four Interprofessional Maternity Care Practices

	Interchangeable Team	Shared Care Model	Midwife-Physician Partnership	Patient Partnership Model
Date Opened	2003	2011	2010	2013
Setting/Community Context	Metropolitan City Expensive housing Multiple services	Urban/Growing Affordable housing High crime area	Small city Limited public Transit	Small town/Rural area Recreational Focus
Mandate	Access for underserved, multi-ethnic community	Accessible, integrated health services	Extend woman-centred maternity care	Maintain rural obstetric services
Client Population	Recent immigrants Ethnically diverse	Ethnically diverse High rates of substance use	Less ethnic diversity Low income	Least ethnically diverse
Team Composition	Physicians (2) Midwives (9) Nurse Practitioners (2) RN/Lactation Consultants (2) Doulas (40+)	Physicians (3) Midwives (6) Nurse Practitioner (1) RN/Lactation consultant (1) Doulas (many)	Physicians (2) Midwives (2) Lactation consultant (1) Doula (1)	Physicians (2) Midwives (4) RN or Doula Facilitators (3)

Data Collection

Sources of data included: a) a period of observation at each practice to appreciate contextual influences; and b) semi-structured interviews with administrative staff and caregivers (n=40) and women (n=33) as recipients of care to learn about their experiences within the model. Interviews were conducted with all available staff (5-10 per practice) and a convenience sample of English speaking recipients of care who presented for care during the observation period (5-10 per practice). About half (45.5%, n = 15) of these women were multiparous, 9 % (n =3) self-identified aboriginal, 9% (n =3) lived in a rural community, and 6% (n = 2) were newcomers who have lived in Canada for < 5years. The majority (75.8%, n = 25) had some post- secondary education and reported annual

household incomes > \$50,000 Canadian. Staff participants included all those who consented and were present during my observational period in the practice with a total of 8 physicians, 22 midwives, 2 nurse practitioners, 1 registered nurse, 2 doulas and 5 administrators.

Interviews were conducted with 5-10 available staff at each practice and a convenience sample of 5-10 recipients of care. Ethics approval was obtained from the appropriate boards. The approved consent to participate was reviewed with each participant prior to the interviews and participants were reminded of their ability to withdraw consent at any time. An observational grid outlining criteria for observation was used for consistency in data collection across the sites. Interviews were audio-recorded with the participant's permission and transcribed for accuracy. Identifiable information was removed and pseudonyms were assigned. Descriptive reviews of practices included referenced information that revealed the practice location or practice name and therefore anonymity could not be maintained. However, participants were notified and consent was maintained.

Data Analysis and Interpretation

Thematic analysis of the interview transcripts, field note memos and documents, was used to complete the analysis. NVIVO-10 was used to organize data and identify themes at each practice. Line-by-line coding of the transcripts, and memos allowed for differentiation of the themes and identification of supportive codes and categories (Crabtree & Miller, 1992). Descriptive narratives of each practice were written to reflect on the data, and identify codes and categories. Analytic notes recorded the coding process and the relationships between the themes and supportive codes. The analytic notes were integrated into the analysis to support the patterns and relationships between

concepts across the practices. Organizational and policy documents were used in the analysis where needed to understand the larger contexts at play.

Findings

Findings related to barriers and facilitators are presented using an organizational framework informed by the *Analytical Framework of Interdisciplinary Collaboration* (Sicotte, D'Amour & Moreault, 2002) (Fig. 2). This framework was discovered in the process of analysis; the concepts and input-process-outcome approach fit well with the study findings, providing a useful tool for representing complex findings and promoting understanding of relationships between variables identified in the data. In this model, contextual variables reflect the ways governing bodies, funding arrangements and organizational structures influence how practices are organized and how they function, while intragroup processes refer to the values and beliefs of the group and particular attributes that influence approaches to care and team functioning. These factors are mediated by the shared task of providing woman-centered care through a common philosophical perspective resulting in a sustainable form of continuity of care that is positively evaluated by recipients of care. Evidence in support of the findings is provided on the corresponding tables to enable uninterrupted description of the contextual variables, intragroup processes and outcomes of collaboration according to the framework.

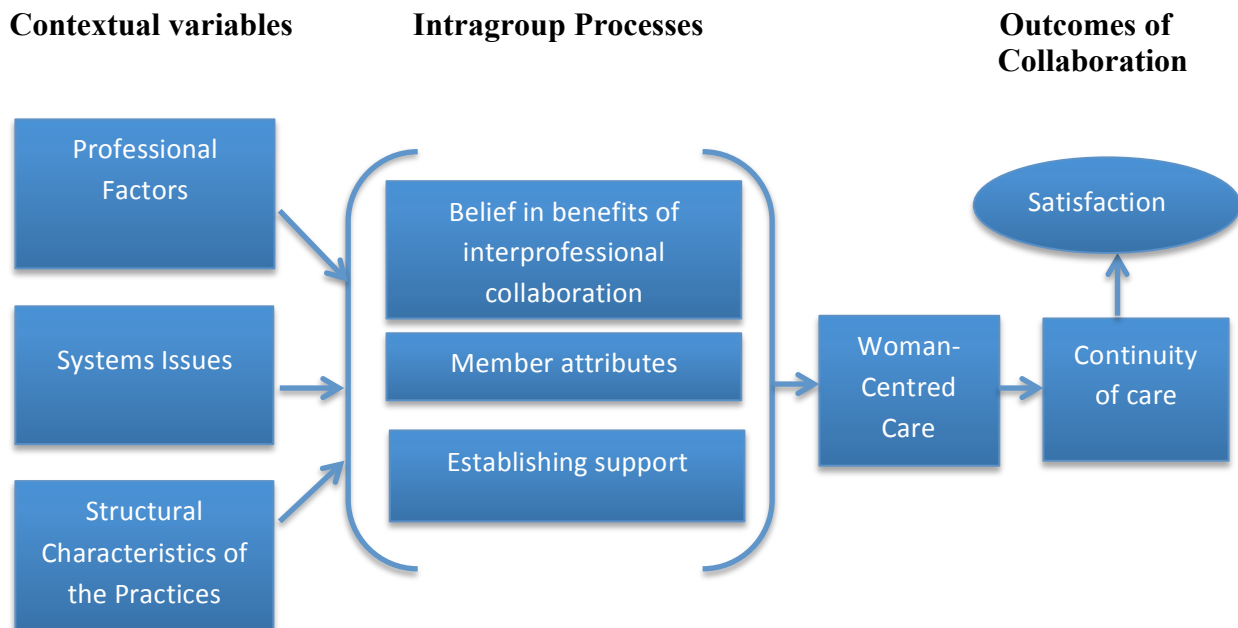


Figure 2. Analytical framework of interprofessional collaborative maternity care. Modified from Siscotte, D'Amour & Moreault, 2002.

Contextual Variables

Professional factors, systems issues and structural characteristics of the practices, particularly leadership and team management, all influenced intragroup processes and shaped interactions and collaboration. Professional governing bodies and funding arrangements are external factors that impacted how care was enacted in these practices. Although positive and negative effects of each were noted, more barriers to implementation were apparent from these influences. Each will be addressed on Table 2.

Table 2

Professional Influences and Structural Characteristics as Contextual Variables

Professional Factors	Examples
Professional bodies	<p>“They’re not my professional body. What makes collaboration special is that you have people from both types of training and experience bringing something unique to the table” (Dan, MD).</p> <p>“The BC College of Family Physicians said sure, go for it” (Bela, MD)</p>
Systems Issues	Examples
Funding arrangements	<p>“We couldn’t have gotten started so quickly without funding” (Mysha, Midwife)</p> <p>“We could only do clinic on certain days, which made it really hard for some of our patients” (Mika, Midwife).</p> <p>“I have to chart on the hospital paper chart, dictate, go on the EMR and [write] about the delivery then send a message to all care providers about the delivery. In other groups I dictate and maybe write a note in the chart, and that’s it” (Lola, MD).</p> <p>“When the locus of control is within, there is better functioning than when the power is external and imposed” (Nyah, Midwife).</p>
Structural Characteristics of the Practices	Examples
Leadership and organization	<p>“A practice like this needs someone at the reins... a visionary to look at the big picture. It would fall apart without [midwife]” (Bela, MD).</p> <p>“It takes a lot of work but I can do it. I don’t have a life” (Nyah, Midwife)</p>
Administrative Systems	<p>“We have a schedule, women see a physician for the third visit to address medical issues. It’s not just hit and miss” (Cheyenne, Midwife).</p> <p>“We added good client tracking. When you have over 30 women due in a month someone could do a delivery, discharge the patient then not tell us and we wouldn’t see them” (Cheyenne, Midwife).</p>
Team management	<p>“ We’re not checking charts because we don’t trust folks, we’re checking charts because we’ve got their backs. We see what’s missing and then they fix it. We don’t have missing [information] from our charts. That’s the way it works here.” (Mika, Midwife).</p>

Professional Factors. The very existence of collaborative groups that included midwives depended on approval of the model by the midwifery governing body through a formal application process with extensive reporting requirements (CMBC, 2014). Regulation of how midwives practice, including how they provide continuity of care, is aimed at preserving critical elements of the model. Where midwives work with other providers, there must be a shared care agreement in place dictating that all practitioners provide care in the same manner regardless of their professional identity. This was challenging for physicians who were not members and who recognized that their own professional body did not limit them this way. While there are merits to maintaining key principles and philosophical tenets of midwifery practice, the uniqueness of IPCMC practices was stifled by restrictions imposed by the regulatory bodies. The inconsistencies in acceptance of shared care across the governing bodies implied a professional elitism and territorialism, the very attitudinal characteristics the groups attempted to eliminate. Leadership from governing bodies that recognizes the value of all professions is fundamental to the success of intraprofessional collaborative practices.

Systems Issues. Whether or not practices received funding to initiate and maintain the models had an impact on how quickly they became operational but also limited processes of care. The mandates of the *Interchangeable Team* and the *Shared Care Model* and the timing of their development fit with funding opportunities at the Federal or Provincial levels. These funds were supplemental to the usual fee-for-service or capitation fees for clinical care and were intended to support new collaborative practices designed to serve marginalized populations by covering overhead expenses during the launching phase of development. There were advantages and disadvantages to receiving this funding. Although they were helpful in planning and launching these

practices there were also restrictions that removed decision-making control from the team. For example, the conditions of external funding limited the location of the *Interchangeable Team* to a decrepit building, which made their program unattractive as well as confusing to the community and providers alike, and contributed to difficulties in generating interest in their services. Normally, public health services do not include primary care but focus instead on childbirth education so the services offered by the IPCMC practice were not well understood. Also, sharing the building made it difficult to respond to the needs of clients who required flexible clinic scheduling (e.g. after hours or longer visits).

The external funding specified who worked in the practices. Where funding required that one practice be part of the local health unit, nurses were provided but they were not replaced, resulting in burden to the other nurses in the unit. This gave the illusion of support but, in fact, undermined the practice. Hiring was limited to internal applicants who had the most seniority. As a result, both of these practices experienced the effects of displaced or imposed employees because internal layoffs within the public health unit and the health authority resulted in shifting of staff between programs. Staff did not necessarily share the philosophical beliefs or even have experience in maternity clinic care, resulting in a poor fit and contributing to staff turnover. Frequent changes in staff resulted in the need for extensive and ongoing orientation causing delays and instability of both programs as well as frustration and loss of decision-making control for remaining providers.

Funding from the Health Authority did not fund or provide support for the preferred electronic medical record system (EMR) for the *Shared Care Model*. Although this EMR was seen as critical to promoting communication, the group was required to

adopt the same record used in the broader system. As a result, the Health Authority and maternity program records could not interface and consultations within the Health Authority had to be documented twice, adding to staff workload and potential for error. This inefficiency was further complicated by a lack of technical support leading to frustration across group members.

In contrast, the *Midwife-Physician Partnership* and *Patient Partnership Model* did not receive substantial core funding for their services or infrastructure from government, but were initiated without substantial additional funds beyond seed money. This difference in funding arrangements had critical impacts on the process of starting up and maintaining services. While staff in these practices needed extensive unpaid planning and organizing time, these groups also had the freedom to hire people that shared their commitment to collaborative care, purchase supplies and manage their own operations while avoiding bureaucratic processes. As a result, there was a greater sense of autonomy and control compared to practices that were accountable to external funding agencies. Because much of the initial set up was done in these practices without remuneration, the commitment to launching and maintaining these practices was largely intrinsic. The trade-offs of having stable funding versus ‘going it on our own’ were apparent to both of these groups from the outset.

Blending payment structures was a challenge across all practices. The Medical Services Plan (MSP) pays providers for medical services in BC. Doctors traditionally bill per visit. Midwives are paid per trimester for ante-partum care and receive separate payments for delivery and the post-partum care. In the *Midwife-Physician Partnership* billings reflected these usual approaches by both professions and salaries for the nurses and support staff were shared. Physicians billed for formal consultations that were

outside the midwifery scope of care but could not bill for routine care without interfering with the midwifery billing since this would be considered double billing MSP. The physicians invoiced the midwives internally for routine visits. While these visits were a cost to the midwives, they were able to increase their caseload because of the physician involvement in care, balancing revenue. An elaborate internal payment structure existed within the *Interchangeable Team*, the *Shared Care Model* and the *Patient Partnership Model*. Midwives provided the majority of the care and, therefore, billed for each trimester, while the provider who attended the birth billed for the delivery. Funds were pooled and providers were paid for work in pre-set amounts that were consistent across professions despite experience or seniority. Staff salaries were drawn from these pooled funds.

Structural Characteristics of the Practices. Formalization is the degree to which the groups demonstrated leadership, organization and team management (Sicotte et al., 2002). Efficacy of group functioning in these IPCMC practices relied on fulfillment of these roles.

There was a clear need for leadership and extensive organization at each of the practices in order to facilitate collaborative practice. While these roles are important in any group practice, the interprofessional element added complexity. Overlapping administrative roles were noted among lead midwives and physicians at each site but these roles were also required of the doula at the *Midwife-Physician Partnership*. Being flexible to meet the demands of the practice and having more fluid boundaries around professional identity were particularly evident in this practice where the number of team members was smaller and roles were shared.

Effective administrative processes and systems were critical to successful operations, both to respond to the requirements of funders and professional bodies and to ensure seamless, high quality care across the team. Extensive documentation for reporting to professional bodies, scheduling, coordination of patient lists, and internal billings was required. This was done through chart audits and tracking of care. Tracking was necessary to demonstrate continuity of care to the governing body but also enhanced communication. Scheduling of visits was particularly intentional in the *Midwife-Physician Partnership* where medical needs were anticipated and addressed systematically by the appropriate person in the team. The Clinical Lead in one practice conducted regular chart audits to ensure comprehensive care by identifying gaps and providing feedback to group members on best practices. Members who were not open to feedback did not stay or were not offered renewed contracts since this was part of the essential “fit” within the team. This was a form of quality control consistent with team performance literature that addresses health care as a high reliability organization (HRO) that requires every member of a team to monitoring each other’s performance to contribute to patient safety (Baker, Day & Salus, 2006).

Intragroup Processes

The contextual variables of professional factors, systems issues and structural characteristics of the practices had an impact on how collaboration was enacted through intragroup processes that included a fundamental belief in the benefits of interprofessional collaboration (IPC) and member attributes and behaviours that established support. Examples of influences on intragroup processes have been provided in Table 3.

Table 3

Intragroup Processes: Shared Benefits, Member Attributes, Establishing Support

Belief in Benefits of IPC	Examples
Absence of elitism	<p>“You have to be a certain kind of physician to do this. Willing and open to what midwives can offer to women” (Dan, MD).</p> <p>“You’ve got to be able to check your attitude at the door. We’re all here to do the same thing, do the same job.” (Mika, Midwife).</p>
Member Attributes	Examples
Respectful demeanor	“Sometimes women disclose something different to a physician than to another caregiver. It could be in the questions physicians [ask]... I feel better knowing there’s a double check and women benefit” (Nyah, Midwife).
Willingness to share knowledge	“It’s amazing to actually realize how many similarities we have [in assessments] and then how many unique differences we have too that we can teach each other” (Aase, Nurse Practitioner).
Commitment to communication	“That’s a significant amount of time daily to go through even just 10 emails. That’s like 10 unpaid consults. Its all very nice but a bit unrealistic really” (Lola, MD).
Flexibility	“I am a doula but I do the books, facilitate post partum groups and fill in for the MOA. We all just do what we can to help” (Sammy, Doula).
Establishing Support	Examples
Consistency is key	“We felt it did a disservice to women to have us saying different things. It is unnerving to hear one thing from a doctor then another from the midwife- they lose trust ” (Nyah, Midwife).
Access to consultation	“If I need a prescription, I knock on their door. It makes it much easier for me; a job that took a day or two, in just five minutes” (Astrid, Midwife).
Reciprocal learning	“I learn things like water birth and I share the medical side of things. It makes sense to me to work together when we have different and complementary backgrounds, training and expertise” (Balya, MD).
Promoting sustainability	“There are lots of people who teach or are engaged in their regulatory bodies or have families or ailments. I don’t know that the one predominant model of midwifery accommodates that. Few people work in that model for more than a short period without feeling like they’re just hanging on” (Chana, Midwife).

Belief in Benefits of IPC. Collaboration was enhanced when there was a shared view that care by the group, with unique contribution by each team member, was superior to care by any one profession. Group members recognized that this value must be without professional territorialism or hierarchy. On the other hand, engaging physicians who believed in the benefits of collaborative care was difficult not only because of the required unconventional perspective and organizational and time commitments to sustain collaborative models but also because of the impact participation had on maintaining a medical practice. Busy on-call demands for more patients made simultaneously juggling a medical practice difficult. This prompted a move in some practices toward strategic utilization of the family physicians as consultants or as the lead providers for patients whose pregnancies were more complicated.

Member Attributes. Belief in the benefits of collaborative models alone was not enough. Specific personal attributes, including a respectful demeanour, willingness to share knowledge, commitment to communication and flexibility, were consistently seen as facilitators of collaborative practice.

A respectful demeanour and caring dynamic at the *Midwife-Physician Partnership* enabled routine involvement of physicians. All people in this practice saw a physician early in their care to review their medical history and to be known to the physician should they require any additional medical visits. There was no perceived loss of autonomy expressed by the midwives in this model, only a sense of security that more providers were double-checking and that patients benefited. According to both the physicians and midwives in this practice, this was possible because of an overwhelming mutual respect, willingness to mentor, and openness to reciprocal learning.

Team members were willing to share knowledge with each other and engaged in regular formal educational sessions aimed at shared professional development. Numerous providers across the practices reported formal and informal learning as the greatest benefit of working in these models. Mentoring occurred in the *Patient Partnership Model* where both physicians and midwives provided homebirth, home postnatal visits and intrapartum bedside care. Some skills entailed in these elements of care were less familiar to the physicians compared to the midwives in the group. While the midwives appreciated the availability of consultations and the opportunity to learn about abnormal conditions of pregnancy, physicians welcomed the opportunity to expand their scope of care to include skills such as homebirth management and newborn blood sampling at home. The willingness to develop these skills stemmed from recognizing the benefits for patients and providers.

Team members also brought a commitment to open communication. An electronic medical record (EMR) and messaging system facilitated information sharing and provided support across the groups. While administrative leads were often the team members who responded to group discussions, all members were expected to follow the discussions and contribute as much as possible. One participant identified this as an unrealistic expectation impacting her decision to leave the group while others cited the continual availability of peer support through the EMR as critical in caring for more complex clientele.

Finally, an inherent flexibility was also noted among providers in IPCMC practices through willingness to extend or reschedule appointments to accommodate clients' needs, be available for immediate consultations or take on administrative or organizational tasks. Collaboration was enhanced when members were willing to

contribute in many capacities and had the skills to perform varied clinical and administrative roles.

Establishing Support. Consistency of approach, access to consultation, opportunities for reciprocal learning and a focus on strategies to support sustainability of the team were identified as critical in establishing a culture of support within the practices. Each of these elements of support will be addressed.

All practices identified the need for a consistent, agreed upon approach to care that was comfortable for all and generated trust, interdependency and confidence across the group. Reaching consensus in any health care team requires maturity and confidence as clinicians and respectful and accepting attributes as individuals. Consistency was facilitated by protocols that reflected current evidence, community standard and best practices. The protocols provided clarity about expectations of consultations as required for the midwives, which was particularly important given differences in scope of practice between physicians and midwives.

The availability of convenient consultations was seen as supportive for both recipients of care and providers. Midwives appreciated working with physicians whose approach reflected the group philosophy of minimal intervention. Their familiarity with how the physicians in the group managed complications allowed the midwives to better prepare patients for consultations. Sharing care enabled providers in each practice to send patients to group members for next visits if a non-urgent consultation was warranted. This allowed people to stay within the group and maintain the focus of a normal pregnancy and reduced double billing since consultations occurred in conjunction with routine care. A culture of internal consultation was most apparent within the *Midwife-Physician Partnership* and the *Shared Care Model*. Respect was extended

across and between team members of different professions with verbalized compliments to one-another that identified their difference and expertise. Providers were heard encouraging next visits with other providers who could talk to them about a specific topic that reflected their knowledge and skills. There appeared to be an effort to create roles of expertise within the *Shared Care Model* that cultivated specific clinical or administrative interests, creating champions in certain areas that contributed to feelings of professional development and satisfaction among providers. Similar engagement of team members' expertise was noted within the *Midwife-Physician Partnership*. Physicians and midwives accessed the lactation consultants during clinic visits when feeding difficulties were challenging. Patients overheard the conversations and benefited from the immediate consultation. Timely access to consultation was particularly important in practices where the clientele experienced more complications. This kind of support increased efficiency and brought satisfaction to midwives across the practices.

Having collegial support through input, guidance and mentorship influenced the comfort of providers in caring for patients in different situations and contributed to an expectation of reciprocal learning. Midwives valued the support with more medically complicated patients and physicians valued the support with homebirth and lactation concerns. Formal and informal reciprocal learning and the continual availability of support enabled a broader scope of care for midwives (Malott, et al., 2016a). Having continuity of information through a shared electronic medical record available to all staff enabled complete information for consulting group members, which contributed to patient safety and optimal outcomes (Malott, et al., 2016b).

Attention to sustainability of the team, and the model itself, also contributed to a supportive environment. Each of the practices offered support to providers for off-call

time and work-life balance that contributed to sustainability of the group members as maternity care providers. Several midwives reported that collaborative care enabled them to work part-time hours, bringing personal satisfaction with work-life balance, while others appreciated how the flexibility allowed them to undertake other responsibilities. Challenges with sustainability in usual medical practice existed for physicians as well. Family physicians within the *Patient Partnership Model* who had previously maintained a primary care medical practice that also included maternity care struggled with on-call demands and daytime clinic obligations. Sharing these responsibilities in the IPCMC practice allowed them to limit post-call clinic and better balance their personal lives. Physicians and midwives working in collaborative models were also more able to engage in administrative responsibilities at the clinic, the hospital and in the community during off-call hours, which promoted stability of the practice and sustainability of maternity services in the area.

Woman-centred Care as a Mediating Variable

Siscotte et al. (2002) include the nature of the task as a mediating variable in collaboration. Shared philosophical beliefs of birth as a natural life event and the patient as central to their care were considered foundational to interprofessional collaborative maternity care (Malott, et al., 2016b). They influenced intragroup processes and how collaboration was enacted but also impacted the extent to which continuity of care was demonstrated. Challenges were noted when providers found the expectations for continuity unsustainable or where staff members who were employed by the funding agency expected set employment conditions and did not share a philosophical commitment to continuity of care. A detailed analysis of the ways in which continuity of

care was enacted in these clinics can be found elsewhere (Malott, et al., 2016b); examples of woman-centred care as a mediating variable are provided in Table 4.

Table 4

Woman-Centred Care as a Mediating Variable

Woman-centred care	Examples
Common values	<p>“They [physicians] were doing Leboyer births, offering choice, woman-centered care before midwives came along. They were going to home births, not with midwives, by themselves, because women wanted them” (Nyah, Midwife).</p> <p>“Even though we practiced a very woman-centered approach, because the requirements of the College of Midwives are so very particular, we, [MD] and I, needed to practice in the midwifery model. We spent that time sort of coming to a consensus around priorities of practice. We had a retreat at the beginning to make sure we were all on the same page” (Dan, MD).</p>
Like-mindedness	<p>“Collaborating with midwives allowed me to keep doing OB with a group of people I am comfortable sharing the work with. I would have had trouble finding enough physicians that I felt philosophically aligned with” (Dan, MD).</p>
Employment conditions	<p>“They sometimes think about breaks or overtime where we think about the birth as the end point no matter when that is” (Mika, Midwife).</p>

Discussion

Key messages from the findings of this study include: essential member attributes enhance collaboration; formalization including organization and leadership are critical in promoting seamless care; and external factors, primarily governing bodies and funding arrangements impact the enactment of interprofessional collaboration. A woman-centred approach is essential to promoting continuity, contributing to relational care and satisfaction for recipients of care.

Attributes as Enablers

While intrinsic motivation can drive collaborative efforts, it is not enough. Research exists in support of essential attributes such as coordination; leadership and communication skills and studies link these attributes with enhanced process in collaboration (Adams, Orchard, Houghton & Ogrin, 2014; Feifer, et al., 2007; Orzano, Tallia, Nutting, Scott-Cawiezell, & Crabtree, 2006). In the collaborative care literature, coordination refers to the organization of treatments as well as professional roles in a way that optimizes available skills and resources (Samuelson et al., 2012). This study found enhanced collaboration when group members were flexible in their roles, had multiple skills to offer to the group and where professional boundaries were fluid and overlapping. While this is consistent with existing research on collaboration (Downe, Finlayson & Fleming, 2010), appreciating the need for flexibility specifically adds to our understanding of intragroup processes related to member attributes included in the analytic framework.

Findings from this study indicate that commitment to communication, problem solving and consistency in approach are essential to promoting effective intragroup processes in IPCMC practices. These findings are consistent with existing research that identifies characteristics of group members that enhance collaborative efforts (Downe, et al., 2010). These attributes promote best practices, enhance group dynamics, maintain cohesion and promote a culture of safety consistent with recommendations for effective teamwork in obstetrics as outlined in nationally implemented emergency and risk management programs (Baker, et al., 2006; Salus Global Corporation, 2016). Commitment to effective communication and clarity of roles are critically important in larger practices, where connectedness across providers can be more challenging to

establish but is key to promoting seamless collaborative care. Whenever care providers share responsibility for patient care there is a need for clear communication and trust that a standard of care will be provided (Smith et al., 2009). Practice protocols and policies developed by these IPCMC practices helped define roles and scope of practitioners and facilitated comprehensive care consistent with recommendations from professional bodies and recent national consensus statements on effective interprofessional collaborative maternity care (Hutton, Farmer & Carson, 2016; SOGC, 2006). Practicing within the scope of the profession and having professional liability insurance protects members in collaborative practice (Hutton, Farmer & Carson, 2016). However, trust is an emotional response that needs to be developed over time in a supportive working environment where the contributions of group members are valued (Peterson et al., 2007). Recognizing the importance of generating trust as an example of intragroup process related to establishing support helps us understand how, through application of the framework, support impacts collaboration in these models.

Importance of Formalization

The organizational requirements of these collaborative models were extensive not only because these groups were managing a larger number of pregnant people but also because of the complex health and social needs of the patients served by these practices. Findings from this study build on the available Canadian research examining interprofessional practice (Harris & Saxell, 2003; Harris et al., 2012) by making explicit the connection between the contextual variables of professional bodies, funding arrangements and structural characteristics of leadership, organization and team management demonstrating the relevance of organizational theory in establishing relationships between these concepts in a maternity care context. Findings illuminate

concerns that administrative demands can be overwhelming in interprofessional collaborative maternity care practice and, in fact, may threaten to the sustainability of these emerging models of care. This is particularly true when groups are small and demands fall to a few key people who are also clinicians. The potential for collapse of the proverbial ‘house of cards’ is real when key people retire or leave and others have not been ‘groomed’ to assume leadership roles. This issue is common in nursing management and small business in general with a body of literature that addresses strategies for succession planning involving mentorship of middle management and the cultivation of skill-sets to support transition following retirement or loss of key leadership (Blouin , McDonagh, Neistadt, & Helfand, 2006; Carriere, Muise, Cummings & Newburn-Cook, 2009; Redman, 2006;).

Impact of External Factors

While provider attributes facilitated group dynamics and team functioning, findings from this study indicate that governing bodies intending to preserve important elements of the midwifery model pose barriers to their functioning. The National Birthing Initiative identified the need for a reduction in regulatory obstacles that impede IPCMC practice (SOGC, 2008). Governing bodies of midwifery recognize that regulatory barriers exist and have committed to reduce them. However, in some cases, extensive reporting requirements and continual need for justification persist in an attempt to regulate the practice of ‘non-members’. Such practices undermine the value of collaboration by highlighting deviations from the usual model of midwifery and can be understood as implicitly positioning these IPCMC practices as inferior to ‘usual care’ in the absence of evidence to support this position. There is a movement toward increasing support for collaborative organizational models and recognition that these models are an

essential element of midwifery control and creating its own future, rather than allowing external forces to determine the destiny of the profession (College of Midwives of Ontario [CMO], 2009).

In the context of growing support for interprofessional collaborative maternity care our findings reinforce the challenges of engaging physicians in approaches to care that are more closely aligned to midwifery than to traditional medical practice. All providers within these IPCMC practices provide aspects of what can be defined as “midwifery care”. Recruiting and retaining physicians who share a philosophy of care that includes minimal interventions and woman-centredness and who have the time for the organizational demands of collaborative care can make these models unsustainable to physicians who want to maintain a medical practice. Not all physicians are interested in sharing care in general with other providers and while they want best care for their patients they fear a loss professional ‘turf’ (Clements, Dault & Priest, 2007). However, retention of physicians in rural settings is additionally difficult due to the added challenges of providing care in rural settings (Klein, Johnston, Christilaw & Carty, 2002; Kornelson & Grzybowski, 2005). Our findings reinforce existing literature extending these challenges to a maternity care context. Finding ways to support and attract physicians to these practices will be essential if IPCMC groups are to continue.

Our findings also underscore the critical impact that funding and payment structures can have in impeding or completely obstructing delivery of care. Practices that secured external project funding for launching new initiatives appreciated the benefits of support but were restricted in operations, practice and hiring of some staff who did not share the woman-centred philosophy. Combining differing funding models of capitation for midwives, predominantly fee-for-service for physicians and employee models for

nurses, nurse practitioners and administrative staff, made payment for collaborative work very complicated. Incorporating independent contractors with union protected employees who have existing staffing agreements was also a challenge since values and philosophy may not be aligned. Special funding streams are difficult to secure because payers such as government ministries of health find it much easier to manage common, rather than individual, systems. Working with existing payment structures that differ across providers requires extensive effort in pooling, blending and co-ordinating payment within IPCMC practices reducing time available for clinical care. The evolution of effective interprofessional collaborative maternity care depends on developing simpler and more seamless funding models that could include a combination of core funding and salaried models. Looking to primary care team payment models, as examples of how providers can be salaried without loss of autonomy may be informative. While these funding models are tied to targets for number and type of clients served they would be in alignment with the mandates of IPCMC practices that address underserved or marginalized populations in particular. Primary health care teams have been found to be beneficial to all populations but particularly those with complex conditions benefit from an interprofessional collaborative team approach (Jones & Way, 2007; Lemieux-Charles & McGuire, 2006).

However although initial expectations were that increased access would result in fewer emergency room visits and subsequent cost savings, primary care teams have proven to be expensive (Glazier, Kopp, Schultz, Kiran, & Henry, 2012). In a publically funded system it may be prudent as a starting point to prioritize implementation of these models in marginalized populations who may benefit most. Securing ongoing funding models should provide stability within emerging practices by reducing uncertainty and

administrative burden, and reinforce the autonomy and control of teams to develop new ways of working together that are responsive to the needs of local communities.

Limitations

While interviews were conducted with all those who were interested and consented, participation was voluntary and it is possible that bias toward positive evaluation existed in those who agreed to participate. Staff were told about the study prior to the site visit, when the primary author, (AM), would be conducting interviews. While the questionnaire instrument was designed to ask open-ended questions without leading the participant, staff recognized that this study was an opportunity to demonstrate the effectiveness of interprofessional collaborative care that might contribute to ongoing approval of their practice. If staff with negative thoughts of the practice did not want to participate they could have avoided the practice during the known one-week period, not providing an interview and their interactions would not be observed.

Staff who worked in the practices believed in the benefits of interprofessional collaboration and therefore may have a tendency to positively evaluate the model and under-emphasized the challenges of developing and maintaining these alternative models of care. With the exception of one provider, all staff reported the benefits as being worth the effort. While we acknowledge the imbalance of acceptance of the model we recognize the value in being able to reach that person who was leaving enabling inclusion of some of the challenges, which allowed for a fuller understanding of the sustainability of IPCMC practices.

Likewise, the women who participated in interviews were eager to share their experiences of the model. It is possible that they expected to have positive experiences since web based information of each practice described the benefits of collaborative care

(AppleTree, 2016; Community Birth Program, 2014; Fraser Valley Maternity Group, 2014; South Community Birth Program, 2006). Although all patients attending the clinics during the one-week observation and interview periods were invited to participate in this study, involvement was voluntary. Interviews were private and confidential, but it is possible that those who have negative experiences did not come forward. Interviews with recipients of care provide some initial evidence of the benefits of interprofessional collaborative maternity care for patients, but specific outcomes were not measured. Future research that assesses the impacts of these models of care on patient outcomes, in comparison to standard models of care, is needed.

The one-week period of immersion is also a limitation since behaviors of staff during the period of observation may have lacked authenticity. Immersion over a longer period of time may have provided different findings. However, the duration did allow for observation of a variety of interactions within the clinic setting that were routine scheduled events such as interprofessional educational rounds, meetings, and interactions. Clinic waiting room observations of women accessing services was authentic since patients did not know a researcher was present; however, the patient information and consent form indicated that patients would be asked about their experiences so if they were not comfortable sharing negative experiences they may not have participated.

At the time of data collection the IPCMC practices studied were the only practices approved to include midwives in BC. Including additional practices that have begun to emerge across Canada may offer more variation and deeper understanding of jurisdictional influences. This may be of particular value in relation to exploring funding arrangements since different approaches to funding exist across provinces.

Conclusion

This multiple case study exploring four innovative interprofessional collaborative maternity care practices in British Columbia provides an opportunity to learn about the barriers and facilitators to collaborative care and appreciate the influences of rigid structures and destabilizing factors. National policy directives have encouraged collaboration but implementation has been slow. Midwives are in a position to make a greater contribution to maternity services through IPCMC practices, reaching more people and influencing the provision of woman-centered care across professional groups. However, change is difficult and addressing resistance is exhausting without extensive support and commitment. Understanding facilitators and attending to existing barriers, particularly those related to professional factors and systemic issues, will be important for promoting sustainability and actualizing the benefits of collaborative care in health services delivery.

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CHAPTER 5

A SYNTHESIS OF THE FINDINGS TO PROMOTE COLLABORATIVE MODELS

Interprofessional collaborative models of maternity care (IPCMC) have been cited as a solution to the maternity care shortage, particularly in rural communities (Miller et al., 2012; MOHBC, 2015; SOGC, 2006). However, implementation of such models across Canada has been slow. Little is known about models that do exist in relation to how and why they were first created, what structures and processes influence their operations, whether and how continuity of care is enacted within these models and factors that promote or inhibit their functioning. This qualitative multiple case study of four existing IPCMC practices in British Columbia was designed to address these gaps in understanding. Specifically, the purposes of the study were: a) to explore the factors influencing how interprofessional collaborative maternity care is organized and enacted, and, b) to understand whether and how midwives can provide relational care in interprofessional collaborative maternity care (IPCMC) practices in ways that are positively evaluated by women and staff.

The methods and findings have been presented and discussed in detail in chapters 2, 3, and 4 of the dissertation. However, a brief overview of the method is included with a synthesis of key findings in this final chapter in order to more fully consider the strengths and limitations of this research and discuss the implications for practice, policy and future research.

Method and Design

A qualitative multiple case study design was used to explore variations in 4 interprofessional collaborative models of maternity care. Case study is commonly used

in health service research to learn about an issue through a detailed examination using multiple sources to promote rigor (Stake, 2006; Flick, 1992). Multiple case study recognizes that a phenomenon is better understood through consideration of varied examples emphasizing the importance of context (Stake, 1995, 2006, 2010). This is appropriate in exploring models of interprofessional maternity care since the context of each practice is unique and requires different considerations, contributing to richer findings.

The cases were practices in British Columbia (BC) because this province has the longest history of IPCMC practices in Canada. Growing interest in interprofessional collaborative practice in BC has allowed for comparisons of practices while containing the inputs of provincial and political influences. Each practice had a different mandate and history, a unique community context, served a different population, and organized care in different ways.

Sources of data included: a period of observation at each practice to appreciate contextual influences; and semi-structured interviews with administrative staff and caregivers (n=40) and women receiving care (n=33) to learn about their experiences within the model. Interviews were conducted with all available staff (5-10 per practice) and a convenience sample of recipients of care who were present during the observation period (5-10 per practice). Thematic analysis was applied to interview transcripts, observational field notes and documentation from an observational grid and analytic notes. NVIVO-10 was used to organize data and identify predominant themes at each practice consistent with case study methodology (Stake, 2010).

Summary of Key Findings

Four key findings arose from this study. They include: *The Value of Similarities and Differences*; *Relevant and Responsive Care*; *Relational Care*; and *Broader Conceptualizations of Continuity*.

The Value of Differences and Similarities

The practices that served as cases for this study were varied in their location, population served, composition of the team and approaches to care indicating that interprofessional collaborative care is not restricted to a certain population or setting and that there are multiple ways of enacting collaborative care that meet the needs of varied communities. Three of the practices were in urban settings with populations that varied from approximately 170,000-600,000 and one was in a small town/rural community with a population of approximately 10,000. The structures that influenced processes of care differed across the settings. The geographic and social influence of the rural community was unique to that setting. The interdependence among providers and with the community that resulted from human resource shortages, the threats of loss of services, and ‘knowing each other’ was a powerful driver in rallying unity.

In more urban settings, practices were structured to address the needs of ethnically diverse populations of recent immigrants with language barriers and, in some cases, low income and resources, requiring providers to be flexible and accommodating in order to facilitate access to services. Having larger teams of providers who offered more clinic appointment options increased access yet reduced continuity with a designated care provider. For these recipients of care the flexibility of scheduling outweighed the value of seeing a specified care provider. Some women perceived restriction to one care provider as an inconvenience or limitation; others preferred the

varied perspectives of the group. These findings challenge the prevailing norm among midwifery practices that, unless otherwise granted approval, midwives work only with other midwives and that clients meet no more than four providers.

The size of these practices varied from 5-15 providers (plus many doulas in some practices), which enabled differing combinations of providers with additional interests and expertise to better serve special populations. Recognizing the expertise within the groups and including people with these additional skills in the care of those who could benefit from them demonstrated best practice. The optimal number of providers involved in care has not been established and will never be universally accepted given differing needs of patients. However, it is clear that recipients of care vary in their needs and preferences for continuity of provider.

Relevant and Responsive Care

Gaps in services were drivers in some communities that prompted practices to develop flexible, drop-in postpartum groups and mental health and lactation support services as ways to promote adaptation to parenthood and generate peer support within the community. These innovative approaches demonstrated response to quality indicators aimed at improving outcomes for mothers and babies.

Care was operationalized to meet the needs of communities in ways that reflected contextual realities consistent with primary health care. The geographic, social, and cultural contexts had an impact on how care was organized and delivered in each setting resulting in different approaches to care while promoting access to services. In settings where patients lived great distances from maternity services, care was shared with local primary care providers via a tele-maternity, web-based system that enabled shared appointments with the maternity practice, reducing travel and promoting ongoing

relationships with local providers. In other settings, practices created support services for newcomers or those with limited resources in ways that promoted transition to parenthood, access to food, supplies and transportation and integration within the community. A family practice clinic was created in one community to provide ongoing care for their unattached clientele, while in another setting continuity of care was maintained before during and after pregnancy for people experiencing addictions. Recognizing these needs and creatively working to meet them was consistent with research emphasizing the importance of the social situatedness of the individual and community in structuring care that is relevant (Thachuk, 2007).

Relational Care

Relational care was provided in each practice through patient-centered approaches consistent with the theory of conditional partnership according to Howarth et al., (2014). The experiences and beliefs of women were central to shared decision-making in ways that validated their knowledge and supported relationship development based on trust and respect (Howarth et al., 2014). Patient engagement in shared decision-making mesh providers and patients through the creation of partnerships working toward shared goals of meaningful and relational care (Gittell et al., 2013).

Each of the practices and their clients valued the time spent to establish relationships that had positive effects on the experiences of staff and recipients of care alike. Relational models of care are fundamental in nursing (Doane & Varcoe, 2007; Litaker, Tomolo, Liberatore, Stange & Aron, 2006) and midwifery (CAM, 2015) and are desired by many physicians, but time constraints of busy medical practices often force them to prioritize efficiency over dialogic care.

Findings indicated that structural factors influenced relationship development in the IPCMC practices in ways that either enhanced or detracted from relational care. The location and availability of space influenced whether providers could extend clinic visits or add in new appointments that were a critical element of relationship development. In some cases, funding sources dictated where practices were located, who could be hired and to some extent how staff could function, which further impacted the extent to which care was relational.

Team member attributes were fundamental contributors to relational care, not only in establishing relationships with clients but also in approaches to team interaction and processes of care. Flexibility, willingness to share knowledge and commitment to communication were essential in maintaining cohesiveness across the teams. Support for group members in providing comprehensive care was demonstrated through extensive organization, leadership and team management to ensure staff had support to provide optimal care and through supporting work-life balance by organizing intrapartum call schedules and postpartum management plans that enabled off-call time. Willingness to put forth the effort stemmed from a desire to sustain a practice model that provided benefits to recipients and providers of care and shared goals across the group.

Having shared goals is consistent with organizational theory of relational coordination according to Gittel (2006), which indicates that participants must be connected by relationships that include shared goals and mutual respect. The relationships between team members form a collective identity needed to reach coordinated collaboration (Gittel, 2006). This theory was first developed for the aviation industry but has been applied to highly interdependent health care settings including interprofessional collaborative practice settings where communication and a positive

environment enhance group dynamics (Gittel, Godfrey & Thistlewaite, 2013).

Organizational management has long recognized the importance of mutual respect and trust in team relationships (McAllister, 1995). The nature of relationships between leadership and team members has been shown to influence team functioning (Costa, Bijlsma-Frankena, & de Jong, 2009; McAllister, 1995;). Establishing social capital within a team has been associated with generating trust necessary for team performance (Costa et al., 2009).

Broader Conceptualizations of Continuity

Findings from this study showed that continuity was provided in interprofessional collaborative practices in ways that extended beyond continuity of care provider.

Continuity in midwifery has been widely understood to mean continuity of care provider but broader definitions of continuity exist in the literature (Haggerty et al., 2003).

Continuity of philosophy existed when team members held consistent values and beliefs, and had similar approaches to care and engagement with patients. Continuity of information and management existed when organizational structures facilitated sharing of information and knowledge and enabled ongoing review of records that were updated and shared through extensive communication with clear identification of a plan for care that was established in concert with the client. This promoted care that was seamless, comprehensive and continuous.

Structural characteristics including leadership and organization within the groups, attributes of team members and the extent to which support was offered impacted group interactions. When these were mediated by a shared philosophical view that included seeing birth as a non-pathologic, normal life event requiring minimal intervention and

positioning the patient as central, care was continuous and relational. Continuity was seen to be a means to relational care.

Limitations of the Study

While this study included recipients of care it is acknowledged that participation was voluntary and those who had a positive experience may have been more likely to share their experiences. Attempts were made to ask about care without leading the participants, but participants were told that I (AM) was a midwife researcher interested in learning about collaborative models of maternity care that included midwives. In an attempt to declare myself as an insider, this may have created a bias. The difficulties encountered in revealing the self as researcher echo traditional problems with qualitative research that recognize the influence of the participant-researcher interaction (Polit & Beck, 2012).

Attempts were made to include varied staff including administrators and providers. However, this was not possible at all practices where administrative staff were not full-time. Including the voices of part-time administrative staff may have offered a unique and perhaps different perspective related to challenges and frustrations of trying to run a practice on a part-time basis.

Additionally, the duration of observation may be perceived as a limitation. Visits to practices were 1-week in duration for logistic and financial reasons. Observations took place daily in blocks of at least four hours and it is conceivable that providers were aware of my presence affecting the group dynamics. As well, interprofessional meetings that were observed were scheduled events where I was introduced as a midwifery researcher, which could have altered interactions. Longer immersion may have provided different results if over time participants became less aware of being observed. This study

examined important aspects of structure and process that varied across practices and yielded rich, thick description important for promoting transferability of findings to other settings. Having said that, few sites or practice communities are similar and considerations about the transferability of findings must be left to the reader. The findings about changes over time demonstrate there is evolution in approaches to care within established practices as client needs and group expertise shift. Funding for midwifery in BC differs from other provinces, which makes the application of findings outside BC a challenge unless payment structures change. While this has been described as a general observation it must be studied explicitly.

Implications of the Findings

Midwives have the potential to have a greater impact on the delivery of maternity services through interprofessional collaborative maternity care. Findings from this study show that collaborative groups can reach clients who are more socially and medically complex when internal consultations and opportunities for reciprocal learning provide a supportive environment. Interprofessional collaborative maternity practice enables each profession to work to its maximum ability and scope of practice when the different expertise of providers is directed to more fully meeting individual patient needs. This ultimately has the potential to result in more convenient and timely access to services for patients, improve outcomes and increase satisfaction for recipients of care as well as providers within the groups (Miller, et al., 2012; MOHBC, 2015; SOGC, 2008), but these IPCMC practices need to be stable if they are to be sustainable. Findings from this study have implications for (a) policy changes to promote stability and enhance collaboration, (b) practice at the point of care and at the systems level, and (c) education and research. Each of these areas will be addressed.

Implications for Policy Change

This study underscores the benefits of interprofessional collaborative care involving midwives that was first introduced in Canada by Harris and colleagues (2012) and elucidates required policy changes at the level of midwifery governing bodies and the Ministry of Health in 3 ways; provision of increased flexibility and support for how midwives work in interprofessional collaborative maternity care practices; broadened definitions of continuity of care; adoption of alternative payment structures.

Increased Support for IPCMC Practices. Findings from this study indicate that IPCMC models may provide benefits to recipients of care and providers alike and therefore, flexibility in the regulation of midwifery is warranted. We do not know if outcomes of interprofessional models are as good as team midwifery but we now have reason to believe that elements thought to be critical to the philosophy of midwifery can be maintained in IPCMC models and that access to services may be enhanced which could be particularly beneficial for rural women and those who have complex histories or lives.

According to Russell and colleagues (2009) team-based care is better for everyone but it is expensive (Glazier et al., 2012). Therefore, in a publically funded healthcare system populations that face the greatest barriers to accessing care should be prioritized to IPCMC. Findings from this research suggest two groups: women who are socially marginalized often experience challenges accessing services, and those women in rural settings who face difficult travel to obtain care. IPCMC services with an inherent flexibility in how care is delivered enable those who live in rural communities or those with complex lives to better access services.

Broader Definitions of Continuity of Care. Broader definitions of continuity

that include ways of promoting relational care from interprofessional teams of maternity care providers would provide benefits to clients as well as work-life balance and support for care providers, which has the potential to ultimately promote sustainability of maternity care providers. However, rigid definitions of continuity used by governing bodies, requirements for approval and for ongoing reporting and justification of shared primary care practice in BC pose barriers for implementation. Governing bodies usually describe interprofessional care and collaboration as a consultation process rather than shared care. A disconnect exists between documented support for interprofessional care and collaboration and regulation requirements for practice in these shared primary care models. Ongoing reporting requirements by governing bodies and a continual need to justify IPCMC practices position these practices as inferior to usual model of midwifery practice. These have been perceived as barriers to implementation of collaborative care. Definitions of continuity of care should be re-framed to fit what women want, rather than what others think is good for them. Deliberations around models of care ought to include women in the discussions to determine their perspectives. Implementing models that enable flexibility in accommodating preferences of clients is an important consideration in providing truly person-centred care.

Policy change is a shared responsibility. Policy-makers, providers and consumers have responsibilities for quality improvement (WHO, 2006). Decision-makers must engage healthcare providers and consumers to know what services are required while health care providers must work within appropriate policy environments and have a clear appreciation of the needs of the community. Communities and consumers have a role in providing feedback aimed at influencing quality policy and the way services are provided

that is relevant to their needs to improve outcomes (WHO, 2006). Approaches to continuity should reflect the opinions of consumers.

Adoption of Alternative Funding Models. Differing funding models of various providers pose additional challenges to collaboration particularly where physicians are paid by fee for service. Midwives are generally paid by a form of capitation for full courses of care and nurses are salaried. Presently, obtaining funding for IPCMC practices is difficult and may happen only when there are time-limited opportunities to study new creative approaches. (Government of Canada, 2006). However, collaborative practices require sustained funding (Schmied et al, 2010) that optimally includes support for assessing their effectiveness.

New physicians in BC are being educated in a model grounded in patient-centred care that requires a movement away from fee-for service funding in order to provide comprehensive care to complex patients (Brcic, 2014). Primary care funding models that incorporate salaried positions for physicians, nurses and social workers provide examples of approaches that support the necessary autonomy for care providers to be as responsive as possible to the needs of communities (Health Force Ontario, 2016). These approaches to funding have been associated with promotion of higher quality care compared to fee for service, capitation or blended payment since longer visits and interprofessional collaboration can be supported (Russell et al., 2009). Community Health Centres (CHCs) are examples of primary care models in Ontario, Quebec and Manitoba. The centres are funded to provide services for target populations that can benefit most from the various kinds of expertise in collaborative care teams. The infrastructure needed to support a collaborative team is also funded (Shah & Moloughney, 2001). ‘Medical homes’, common in western Canada, provide similar services that are focused on being

responsive to patient needs, engaging patients in decision-making and self-care, and addressing care from a health promotion perspective that is grounded in principles of equity and access for all (College of Family Physicians of Canada, 2011). A fit exists between the mandates of midwifery and these primary care models. Midwives are mandated to serve diverse and underserved populations and many practices work alongside CHCs (The Midwives' Clinic of East York, 2016) or offer services within maternity care settings with other providers but are not integrated into the funding model (Thunder Bay Regional Health Services Centre, 2016). Incorporating midwives into existing CHC or medical home models with allocation of funds to the centres rather than to individual providers would allow flexibility in how those funds were distributed across the interprofessional team. However, findings from this study emphasize the importance of involvement of providers in the hiring and decision-making processes in order to maintain autonomy and promote continuity within the team.

Implications for Research and Practice at the Point of Care

According to Doane and Varcoe (2007) people are contextual beings that exist in relation to others. Each has personal attributes that in combination with situations, contexts, and environments all influence relationship development (Doane & Varcoe, 2007). Therefore care must reflect the patient's individual situation (Thachuk, 2007). Some patients require providers to 'create relational space' or opportunity for them to discuss their needs while others do not. This relational space requires intentional invitation and time (Doane & Varcoe, 2007). The value of time was further emphasized in this research, which has implications at the point of care and systems levels. Busy medical practices often prohibit physicians from providing the dialogic approach to care that enhances relationship development. Incorporating longer visits with approaches to

generating feelings of ‘being known’ are important steps in encouraging a trusting relation with patients. Structures and systems that support flexibility in duration and timing of visits contribute to relational care through an individualized approach that is relevant. Specific evaluation of outcomes and experiences of women and care providers in interprofessional collaborative maternity care models compared to usual care that measure the effect of time on relationship development and medical errors and issues in patient safety could provide evidence for the value of longer visits providing justification for the expense.

Implications for Health Service Quality at the Systems Level

The fit of a service within a community is an indicator of quality care in health services research. Quality indicators are measures of health care quality that can be used to identify areas of concern in health service delivery or areas that need further study and to track quality of care and improvement over time (Institute of Medicine [IOM], 2001b). They measure how close services are to achieving desired health outcomes (IOM, 2001a). According to the Institute of Medicine (2001b), measures must cover dimensions that include primary and preventive health care aimed at health promotion. IPCMC initiatives provide an opportunity to improve quality of care through patient engagement in health promotion and education during pregnancy, birth and transition to parenthood while ensuring that services are relevant and reflect the context in which they are provided. Maintaining services that reflect principles of health promotion is an essential contribution to public health and is consistent with the Ottawa Charter (1986).

Health care quality refers to providing the right care by the right person at the right time (Campbell, Roland & Buetow, 2000). The structure of the IPCMC practices influences quality of care and includes the basic characteristics of the team, the facility

where they worked and the system they functioned within. More specifically, the composition of teams, their skills in working within the system, the organization of their clinic space, the sharing of information and flow of communication were all aspects of structure that influenced quality of care. Quality in IPCMC requires having the right people and facilities available, but also that the proper elements of care are provided (Campbell et al., 2000; Donabedian, 1988). In the IPCMC practices the process of care referred to coordination, organization and team functioning as well as delivery of care that maintained a standard of quality based on evidence and best practice. These components were critical for providing care that was safe, timely, effective, efficient, equitable, and patient-centered as identified in internationally recognized quality indicators (IOM, 2001a).

Complexity theory offers a useful perspective for studying quality since it considers the complexity of the social and cultural context where the services are being offered (Anderson, Crabtree, Steele & McDaniel, 2005). By considering context and reflecting their mandate in the design of each practice these IPCMC practices aimed to provide services that were an appropriate fit for the environment in which they were implemented (Hawe et al., 2004). The influences of history and the noted changes over time reflected the fact that these practices were adaptive systems that were responsive to the changing needs of the community consistent with complexity theory (Plsek & Greenhalgh, 2001; Shiell, et al., 2008). These IPCMC practices were uniquely influenced by their socio, political, geographic and historic contexts and the constant adaptation required over time as they interact within the system. Changes in team composition and functioning reflected human resource shortages in more rural practices while funding arrangements influenced the availability of resources and hiring of staff in other practices; both demonstrating how IPCMC practices interact within larger systems.

Implications for Research and Education

Intersectionality. While this research did not address intersectionality specifically, it is clear that multiple intersecting issues of social situatedness affect the human experience and impact how patients receive care and interact with health systems (Hankivsky & Christoffersen, 2008). Determining responsiveness to health care needs at the individual level requires explicit research into how these issues intersect. In future research, deeper and more focused studies that are conducted using an intersectional lens could contribute greater understandings about how newcomers without family physicians, women who experience poverty and or addictions and women living in rural communities access and experience interprofessional collaborative maternity care and the outcome for different groups of women. Studies that compare the impacts of traditional maternity care services with IPCMC are needed to better understand the relative effectiveness of these models versus usual care; in these studies, it will be particularly important to look beyond whether women are more likely to benefit in one model versus another, to also consider who benefits most and why.

Evaluation of Health Services. Findings from this study call into question the value of uni-professional care for patients suggesting benefits of varied perspectives specifically indicating that IPCMC practice has the potential to facilitate reciprocal learning that promotes normal birth. Implications for practice include promoting this influence with its potential to reduce interventions and poor outcomes. Evaluation of clinical care outcomes including interventions and cesarean section rates was not included in this study but would be important for future research.

Enhanced access to medical consultation appeared to increase satisfaction among patients and midwives, as well as improve efficiency in processes of care. However,

further research is needed to evaluate quality of care within IPCMC practices. According to the World Health Organization (2006), a health system should seek to make improvements in six areas of quality by requiring that health services be effective, efficient, accessible, acceptable, equitable and safe. IPCMC practices aim to achieve all of these improvements. However, evaluations of whether and how these practices meet the WHO dimensions of improvement in health service provision have not been conducted. The Service Provision Assessment (SPA) for evaluating quality of care from the Demographic and Health Surveys Program provides a tool for assessing quality and measuring general functioning of health service delivery at a national level but could be modified to assess community level services (WHO, 2006). Evaluation could highlight the impact or lack of impact of the services on health behaviors and may guide policy makers in prioritizing resources to support IPCMC practices in promoting better health outcomes for mothers and babies.

Provider Preparation. Fostering collaboration begins with establishing collegial respect and a common philosophical perspective. Promoting a professional image and encouraging a client-centred approach across professions are strategies for finding a common philosophy. These can be developed through interprofessional education (IPE) at the learner and community levels in partnership with professional associations and education programs. Establishing a common understanding of fundamental skills demystifies the preparation of the disciplines and promotes consistent language and appreciation of the perspectives of each. Mutual respect and trust develop when there is consistency in approach to care across professional groups and when there is a common educational foundation. IPE offers an opportunity to support a philosophy of cooperation and collaboration that promotes interprofessional care attending respectfully to the value

of each member of a collaborative practice.

At the learner level requiring IPE exposure within the curricula of each program and tracking other IPE exposure may promote familiarity with roles and responsibilities of each profession and provide a common understanding of education and philosophy across providers. Role clarification and understanding is an enabler of collaborative care that contributes to role valuing and development of trusting, respectful relationships (Adams, Orchard, Houghton & Orgin, 2014; Orchard, Curran & Kabene, 2005).

Utilizing a competency framework that addresses critical elements of IPC including leadership, team functioning, role clarification, patient-centred care, communication and conflict resolution provides a common nomenclature across professions making the approach to assessing IPC competencies more consistent (Bainbridge, Nasmith, Orchard & Wood, 2010; Canadian Interprofessional Health Collaborative [CIHC], 2010). The Team Observed Structured Clinical Encounter (TOSCE) is an approach that promotes shared clinical learning and reflects these competencies when assessment criteria are based on the framework (Murray Davis et al., 2013; CIHC, 2010).

Similar opportunities for shared academic and clinical learning may be beneficial at the professional level. A recent national consensus statement identifies that effective maternity teams participate in interprofessional simulation-based learning opportunities in preparation for working together (Hutton, Farmer & Carson, 2016). IPE offers opportunity for reciprocal learning across professional groups that enable professional development and cross-fertilization of expertise (Gocan et al., 2014). These activities can be nurtured at the practitioner level by encouraging attendance, participation and planning of interprofessional conferences; as well as membership, representation and involvement on governing boards of professional associations such as the Society of

Obstetrics and Gynecology (SOGC) or Association of Professors of Obstetrics and Gynecology (APOG). Engagement in individual or group research and participation in hospital and community committees and professional list serves further increases the profile of all maternity care providers and promotes professional contribution and social connections while enabling increased exposure across professional groups.

Exposure for learners to IPC practices elucidates the benefits of collaborative care for patients and providers while demonstrating how it is enacted (SOGC, 2006). These models teach patient-centredness when they include ample time for relationship development and information exchange in ways that promote shared decision-making with people in care. Encouraging this common philosophy may promote collaborative practice across maternity providers in general. Specific training for rural maternity care providers should include experience in a collaborative practice that includes midwives; nurses and physicians where the benefits related to sustainability of maternity care providers are visible. These practices must support the needs of rural communities and prepare practitioners for the unique needs of the setting in a way that promotes a culture of safety through openness to all perspectives and consideration of the context (Miller et al, 2012).

The SOGC recommends interprofessional education (IPE) opportunities and exposure to interprofessional, practice as strategies for encouraging collaboration (SOGC, 2008). The National Birthing Initiative stresses the need for public and professional awareness of the benefits of collaborative care by low risk maternity care providers, promoting birth as a normal physiologic process (SOGC, 2008). Midwifery, as a growing profession is well positioned to contribute to the provision of maternity services particularly through collaboration with other maternity care providers with

similar values of low intervention and person-centred care. Interprofessional education within undergraduate and graduate programs in academic and clinic settings has the potential to make shared care logical. Implications for research with respect to interprofessional education and interprofessional collaborative maternity care include recommendations for evaluation of whether or not IPE results in more optimal team function in these models of care.

Conclusion

The interprofessional collaborative maternity care practices explored in this qualitative multiple case study differed in population served, geographic location, composition of providers and approaches to care indicating there are multiple ways of enacting collaborative care. While similarities and differences existed in these models team members shared a common view that care by the interprofessional group was beneficial to both recipients of care and providers. They therefore had a desire to support the sustainability of these practices despite the organizational demands, the need for extensive communication and the support required at every level.

Structural characteristics both promoted and inhibited the processes of care within these collaborative practices in different ways. The inhibitions were in conflict with ensuring health care quality, directives of which indicate that care should be by the right provider at the right time and right place (Campbell et al., 2000). Collaborative care is described as being an essential approach to promoting sustainability of providers and improving access to services particularly in rural communities (Miller et al., 2012; SOGC, 2006) yet the obstacles imposed by these structures impeded process and team functioning in some cases to the point of threatening sustainability of practices. Policies and practice are poorly aligned due to these barriers. Support at the level of policy

making within government, funding agencies and regulatory bodies is critical if interprofessional collaborative maternity care practices involving midwives are to continue.

Commonly used definitions of continuity in midwifery that generally refer to continuity of caregiver are narrow and do not reflect current definitions included in the current literature. Policies that universally limit the number of care providers deny the possibility of optimal care through varied perspectives. Evidence from this study supports the need for broader definitions of how continuity can be enacted to allow flexibility in organization of care in ways that promote unique contribution of interprofessional providers.

Meeting the needs of communities involves customizing models to address gaps in services. However, existing policies restrict the ability of midwives to share care with other providers without approval, limiting their ability to collaborate. Governing bodies in principle are supportive of collaboration (CAM, 2015), however, policies that enable sharing of care without requiring approval, justification and continual reporting, and that reduce concerns about receiving ongoing support could maximize the contribution of providers with fewer barriers. Providing increased flexibility in how midwives work could allow them to provide services to more complex populations thereby having a greater impact on the overall quality of maternity services through providing meaningful relational care.

Exploring structures and processes of care that influence how interprofessional maternity care practices enact collaboration and how continuity is provided within these organizational approaches challenges existing notions and policies that govern midwifery

practice. Findings from this study provide important information for policy makers, stakeholders and providers regarding health service delivery in maternity care.

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APPENDIX A

INTERVIEW SCHEDULE FOR STAFF

Understanding Continuity of Care and Shared Decision-Making in Interprofessional Collaborative Maternity Practices in Canada.

Preamble:

Thank you for participating in this interview. I would like to remind you that participation is voluntary and you may choose to not answer any question or discontinue the interview at any time. Your interview will be audio recorded to be sure we understand everything you tell us. The information on the tapes will be transcribed to notes and the tapes will be erased immediately after the interview. Your name will not be attached to the information collected in the interview. Instead, a code number will be given to each person who takes part in the study.

We ask that you do not share personal information that could identify you or others in the interview. In the event that information is accidentally provided it will not be included in the notes.

Context:

1. Why was this group developed?

- Was there a shortage of providers; A desire for a changed model; or funding for collaborative practice?
- What influenced the development of the model? (ie the community, health system, policies?)
- Who developed the model? What were their roles?
- How is the clinic funded? Does funding influence how care is provided?
- How are they paid? Salaried, fee for service etc?
- Is money pooled together?
- Is this a Community Health Center or Public Health Unit? Does the organization influence the model of care?
- Is there a Board of Directors? Who are the staff and providers accountable to?
- How are decisions made?
- Where there policy specific initiatives or regional level policies that influenced the development or the ongoing functioning of this collaborative model?
- Are there mechanisms that support collaboration? ie local policies, organizational factors or structures like physical space and set up of the environment that facilitate collaboration, are there team meetings, opportunities for IP activities,

Collaborative Care:

2. What does the group look like?
 - How many midwives, doctors, nurses and others are there?
 - What are their roles?
 - How do they work together?
3. How does being part of the group influence practice?
 - Is professional autonomy changed?
 - Are clinical decisions different in this model compared to working in a uni-professional model?
4. How does the group work? What shapes the processes of care?
 - How are appointments organized?
 - How many people do the patients see?
 - Does one person organize the care?
 - What is the record system?
 - Are there charts or electronic records?
 - Who can see the records?

Woman Centred Philosophy:

Continuity can mean that one person plans care or that information is shared so everyone knows the plan or that only one or two people care for the patient.

4. What is continuity like in this practice?
 - What does it mean to the group?
 - How does working together change it?
 - Does working in a big geographic area change how continuity is provided?
5. Has the way continuity is provided changed over time?
 - Why have these changes happened?
 - Did people in the area want it to change?
 - Do you think patients, doctors, nurses, midwives or others like the way continuity is provided?
6. Are women included in decision-making?
 - How are care management decisions made?
 - What influence does one's profession have on decision-making?

- What considerations for decision-making are in place that differ in a multi-professional practice from a uni-professional practice?
 - What role do women play in planning their care?
 - Do you think the patients and staff like how women are involved in decision-making in your practice?
7. To what extent do midwives practice autonomously in this model?
- Do practice policies influence their autonomy?
 - How are these policies and guidelines developed?
 - Who is involved in creating them?

APPENDIX B

INTERVIEW SCHEDULE FOR WOMEN

Understanding Continuity of Care and Shared Decision-Making in Interprofessional Collaborative Maternity Practices in Canada.

Preamble:

Thank you for participating in this interview. I would like to remind you that participation is voluntary and you may choose to not answer any question or discontinue the interview at any time. Your interview will be audio recorded to be sure we understand everything you tell us. The information on the tapes will be transcribed to notes and the tapes will be erased immediately thereafter. Your name will not be attached to the information collected in the interview. Instead, a code number will be given to each person who takes part in the study.

We ask that you do not share personal information that could identify you or others in the interview. In the event that information is accidentally provided it will not be included in the notes.

Collaborative Care:

1. What was it like to be cared for by different professionals like midwives, doctors, nurses, social workers etc.?

- Who did you see and when?
- Could you choose your care provider in the group?
- Did you know the person who cared for you when you had your baby?
- Did you have the same person there with you throughout your birth?

2. Was having the same caregiver important to you? If so, when was it important?

- During your pregnancy?
- During your pregnancy and during the birth?
- During your pregnancy, during the birth and for 6 weeks after the birth?

3. What would you say was more important?

- Having the same person care for you throughout your care?
- Having a skilled and trusted caregiver?
- Having care in your community?

4. How did the team share information?

- Did they seem to know what was going on with you? How did they demonstrate that?
- Was there one person in charge of your care?
- Did they share information with you?
- Did you feel you had to repeat your story?

Woman Centred Philosophy:

5. Did you make decisions about your care?
- Did you participate as much as you wanted or do you wish you could have participated more?
 - Were you asked your opinion?
 - Were your experiences considered in some, most or all decisions made? How?
 - Did the caregiver's attitudes of the doctors, midwives, nurses or others change how involved you were in making decisions?
 - Was there a difference in how caregivers involved you?

General Satisfaction:

6. Overall, how did you like this model of care?
- What could have made it better?
 - What was good about it?
 - Is there anything in the way care was delivered that made a difference?
 - Was this the only maternity group or were there other care options in your area?
 - If there were other options would you have chosen this group?
 - If you have had care before in a different model, how did care in this care compare?
 - Would you recommend collaborative care to a friend?



APPENDIX C

LETTER OF INFORMATION AND CONSENT FOR STAFF

*Understanding Continuity of Care and Shared Decision-Making in
Interprofessional Collaborative Maternity Practices in Canada*

Principal Investigator: Elaine Carty MSN, CNM, DSc (hc)

Co-Investigators: Lynne Palmer RN, MSN

Anne Malott RM, MSN, PhD(c)

INTRODUCTION

We invite you to take part in a research study about maternity care programs. You are being asked to take part in this study because you have been a program planner, administrator or care provider in a collaborative practice and are recognized as a key informant for learning about collaborative maternity care programs.

YOUR PARTICIPATION IS VOLUNTARY

Your participation is entirely voluntary, so it is up to you whether or not to take part in this study. Before you decide, it is important for you to understand what the research involves. This consent form will tell you about the study, why the research is being done, what will happen to you during the study and the possible benefits, risks and discomforts.

If you wish to participate, you will be asked to sign this form. If you do decide to take part in this study, you are still free to withdraw at any time and without giving any reasons for your decision.

If you do not wish to participate, you do not have to provide any reason for your decision not to participate nor will any of your colleagues be aware of your decision to participate or not.

WHO IS CONDUCTING THE STUDY?

This study is not funded by any group. The researchers are from the Fraser Health Authority, the University of British Columbia and Western University.

BACKGROUND

Many women in Canada experience limited access to maternity services. Inter-professional collaborative care has been suggested as a potential solution to the maternity care crisis in Canada. However, little is known about how services are provided in these new models of care, what shapes these services, and how women and their families experience the care provided. To better understand these issues, as part of this study we will conduct in-depth qualitative interviews with staff at clinics that offer collaborative maternity care services to better understand how the program developed and how services are delivered in this model.

WHAT IS THE PURPOSE OF THE STUDY?

In this study, we want to learn how interprofessional groups provide maternity care to women and how this affects both the women who seek care and the staff who provide it. Attention will be given to the factors that influenced the development of the model and the characteristics of the collaboration that impact on the experiences of women as recipients of care as well as caregivers and administrators. What we learn from this study will be used to help strengthen collaborative maternity care services in Canada. This letter provides you with information to help you decide whether to take part in this research.

WHO CAN PARTICIPATE IN THE STUDY?

You are Eligible to take part if you:

- Understand and speak English
- Are a program planner, administrator or care provider in this clinic

WHO SHOULD NOT PARTICIPATE IN THE STUDY?

You should not participate if you:

- Were not involved in the planning of this program
- Cannot understand and speak English

WHAT DOES THE STUDY INVOLVE?

If you agree to be in the study, you will be asked to complete a 60-90 minute interview with a researcher and complete a brief questionnaire. All interviews will take place in a private room in the clinic, or in another private location of your choice. In the interview, you will be asked about your experiences planning this approach to care specifically the factors that influenced the development of the collaborative model and what impacts the on going delivery of services in this model. You will also be asked to complete a brief questionnaire, which includes questions about you and your involvement in planning or delivering care in this model so we can understand more about participants in this study. This questionnaire should take approximately 10 minutes to complete. You do not need to answer any questions that you do not want to.



WHAT ARE MY RESPONSIBILITIES?

You are responsible to:

- Listen to the explanation of the study
- Provide written consent
- Participate in a 60-90 minute interview
- Complete a questionnaire

You may not benefit directly from taking part in this study. However, we hope to learn more about how high quality collaborative maternity services can be provided in different contexts. This knowledge may be useful in strengthening maternity care services in Canada.

WHAT ARE THE POSSIBLE RISKS OF HARM AND SIDE EFFECTS OF PARTICIPATING?

There are no known harms expected from taking part in this study.

WHAT ARE THE BENEFITS OF PARTICIPATING IN THIS STUDY?

You may not get any direct benefits from being in this study. However, what you tell us may help similar practices across Canada improve the way they provide care to women.

WHAT HAPPENS IF I DECIDE TO WITHDRAW MY CONSENT TO PARTICIPATE?

You can stop participating without explanation at any time without penalty. The study investigators may decide to discontinue the study at any time, or withdraw you from the study at any time, if they feel that it is in your best interests.

If you choose to enter the study and then decide to withdraw at a later time, all data collected about you during your enrolment in the study will be retained for analysis.

WHAT HAPPENS IF SOMETHING GOES WRONG?

Signing this consent does not limit your rights in any way.



CAN I BE ASKED TO LEAVE THE STUDY?

If you are not complying with the requirements of the study or for any other reason, the study investigator may withdraw you from the study.

AFTER THE STUDY IS FINISHED

What you tell us in the interview will be used in reports, articles in magazines and professional journals, and public talks. Your name will never be used in any reports of this research. If you would like to receive a copy of what we learn, please provide your name and contact number on a piece of paper separate from the Consent Form.

WHAT WILL THE STUDY COST ME?

Participating may result in additional parking or childcare costs to you. There will be no reimbursement for these costs. However, arrangements can be made to choose a location of your choice to reduce inconvenience to you.

WILL MY TAKING PART IN THE STUDY BE KEPT CONFIDENTIAL?

Your confidentiality will be respected. However, research records and health or other source records identifying you may be inspected in the presence of the Investigator or her designate by representatives of Health Canada, or representatives from the Ethics Research Boards of Fraser Health, the University of British Columbia or Western University. This is for the purpose of monitoring the research. No information or records that disclose your identity will be published without your consent, nor will any information or records that disclose your identity be removed or released without your consent unless required by law.

Your contact information (telephone number) will be collected so we can reach you if there is a need to cancel or change your interview time. If you request a copy of the initial report of this study you may provide us with your address. This information will be kept in a locked cabinet in a locked research office, separate from the study data to protect your privacy.



You will be assigned a unique study number as a subject in this study. Only this number will be used on any research-related information collected about you during the course of this study, so that your identity [i.e. your name or any other information that could identify you] as a subject in this study will be kept confidential. Information that contains your identity will remain only with the Principal Investigator and/or designate. The list that matches your name to the unique study number that is used on your research-related information will not be removed or released without your consent unless required by law.

Your rights to privacy are legally protected by federal and provincial laws that require safeguards to insure that your privacy is respected and also give you the right of access to the information about you that has been provided to the sponsor and, if need be, an opportunity to correct any errors in this information. Further details about these laws are available on request to your study doctor.

WHO DO I CONTACT IF I HAVE QUESTIONS ABOUT THE STUDY DURING MY PARTICIPATION?

If you have questions about the study, please contact Anne Malott, Project Lead at ---

If you have any concerns or complaints about your rights as a research subject and/or your experiences while participating in this study contact the Fraser Health Research Ethics Board by calling ---.

SUBJECT CONSENT TO PARTICIPATE

Project Title: Understanding Continuity of Care and Shared Decision-Making in Interprofessional Collaborative Maternity Practice in Canada

- *I have read and understood the subject information and consent form and am consenting to participate in the study Understanding Continuity of Care and Shared Decision-Making in Interprofessional Collaborative Maternity Practice in Canada*
- *I have had sufficient time to consider the information provided and to ask for advice if necessary.*
- *I have had the opportunity to ask questions and have had satisfactory responses to my questions.*
- *I understand that all of the information collected will be kept confidential and that the result will only be used for scientific objectives.*
- *I understand that my participation in this study is voluntary and that I am completely free to refuse to participate or to withdraw from this study at any time without effecting my participation in the main study and without changing in any way the quality of care that I receive.*
- *I understand that **I am NOT waiving any of my legal rights** as a result of signing this consent form.*
- *I understand that there is no guarantee that this study will provide any benefits to me.*
- *I have read this form and I freely consent to participate in this study.*
- *I have been told that I will receive a dated and signed copy of this form.*

Subject's Name (Please Print): _____

Subject's Signature: _____

Date: _____

Person Obtaining Informed Consent (Please Print): _____

Signature: _____

Date: _____



APPENDIX D

LETTER OF INFORMATION AND CONSENT FOR WOMEN

Understanding Continuity of Care and Shared Decision-Making in Interprofessional Collaborative Maternity Practices in Canada.

Principal Investigator: Elaine Carty MSN, CNM, DSc (hc)

Co-Investigators: Lynne Palmer RN, MSN

Anne Malott RM, MSN, PhD(c)

INTRODUCTION

We invite you to take part in a research study about maternity care programs. You are being asked to take part in this study because you are receiving health care at the Community Birth Program, the South Community Birth Program or with the Fraser Valley Maternity Group. This letter provides you with information to help you decide whether to take part in this research.

YOUR PARTICIPATION IS VOLUNTARY

Your participation is entirely voluntary, so it is up to you whether or not to take part in this study. Before you decide, it is important for you to understand what the research involves. This consent form will tell you about the study, why the research is being done, what will happen to you during the study and the possible benefits, risks and discomforts.

If you wish to participate, you will be asked to sign this form. If you do decide to take part in this study, you are still free to withdraw at any time and without giving any reasons for your decision.

If you do not wish to participate, you do not have to provide any reason for your decision not to participate nor will you lose the benefit of any medical care to which you are entitled or are presently receiving. Please take time to read the following information carefully and to discuss it with your family, friends, and doctor before you decide.



WHO IS CONDUCTING THE STUDY?

This study is not funded by any group. The researchers are from the Fraser Health Authority, the University of British Columbia and Western University.

BACKGROUND

Maternity care is not available in all communities across Canada. Midwives, doctors, nurses and others are finding new ways to work together to care for more women closer to where they live. We need to know how they are working together and what women think about this type of care.

WHAT IS THE PURPOSE OF THE STUDY?

In this study, we want to learn how groups of doctors, midwives, nurses and others work together to provide maternity care to women and how this affects women and staff. What we learn will be used to help strengthen maternity care services in Canada.

WHO CAN PARTICIPATE IN THE STUDY?

You are Eligible to take part if you:

- are 18 years of age or older, or are an emancipated youth (16 to 17 years old, and no longer live with a parent or guardian).
- understand and speak English
- gave birth to a baby between 4 and 12 weeks ago
- have received care in this clinic before, during and after the birth of your baby

WHO SHOULD NOT PARTICIPATE IN THE STUDY?

You should not participate if you:

- are under 18 years old or are not an emancipated youth
- cannot understand and speak English
- have not had a baby between 4 and 12 weeks ago
- have not received care in this clinic before, during and after the birth of your baby



WHAT DOES THE STUDY INVOLVE?

If you agree to be in the study, you will be asked to complete a 60-90 minute interview with a researcher. All interviews will take place in a private room in the clinic, or in another private location of your choice. In the interview, we will ask you about the care you have received before, during and after the birth of your baby. You will also be asked to complete a brief questionnaire, which includes questions about you and the care you received so we can understand more about the group of people participating in this study. This questionnaire should take approximately 10 minutes to complete. You do not need to answer any questions that you do not want to.

WHAT ARE MY RESPONSIBILITIES?

You are responsible to:

- Listen to the explanation of the study
- Provide written consent
- Participate in a 60-90 minute interview
- Complete a questionnaire
- ***WHAT ARE THE POSSIBLE RISKS OF HARM AND SIDE EFFECTS OF PARTICIPATING?***
- There are no known harms expected from taking part in this study.
- ***WHAT ARE THE BENEFITS OF PARTICIPATING IN THIS STUDY?***
- You may not get any direct benefits from being in this study. However, what you tell us may help similar practices across Canada improve the way they provide care to women.



WHAT HAPPENS IF I DECIDE TO WITHDRAW MY CONSENT TO PARTICIPATE?

You can stop participating without explanation at any time without penalty. The study investigators may decide to discontinue the study at any time, or withdraw you from the study at any time, if they feel that it is in your best interests.

If you choose to enter the study and then decide to withdraw at a later time, all data collected about you during your enrolment in the study will be retained for analysis.

WHAT HAPPENS IF SOMETHING GOES WRONG?

Signing this consent does not limit your rights in any way.

CAN I BE ASKED TO LEAVE THE STUDY?

If you are not complying with the requirements of the study or for any other reason, the study investigator may withdraw you from the study.

AFTER THE STUDY IS FINISHED

What you tell us in the interview will be used in reports, articles in magazines and professional journals, and public talks. Your name will never be used in any reports of this research. If you would like to receive a copy of what we learn, please provide your name and contact number on a piece of paper separate from the Consent Form.

WHAT WILL THE STUDY COST ME?

Participating may result in additional parking or childcare costs to you. There will be no reimbursement for these costs. However, arrangements can be made to choose a location of your choice to reduce inconvenience to you. You will not be paid for being in this study. However, you will be given a \$10 gift card to thank you for your time.



WILL MY TAKING PART IN THE STUDY BE KEPT CONFIDENTIAL?

Your confidentiality will be respected. However, research records and health or other source records identifying you may be inspected in the presence of the Investigator or her designate by representatives of Health Canada, or representatives from the Ethics Research Boards of Fraser Health, the University of British Columbia or Western University. This is for the purpose of monitoring the research. No information or records that disclose your identity will be published without your consent, nor will any information or records that disclose your identity be removed or released without your consent unless required by law.

Your contact information (telephone number) will be collected so we can reach you if there is a need to cancel or change your interview time. If you request a copy of the initial report of this study you may provide us with your address. This information will be kept in a locked cabinet in a locked research office, separate from the study data to protect your privacy.

You will be assigned a unique study number as a subject in this study. Only this number will be used on any research-related information collected about you during the course of this study, so that your identity [i.e. your name or any other information that could identify you] as a subject in this study will be kept confidential. Information that contains your identity will remain only with the Principal Investigator and/or designate. The list that matches your name to the unique study number that is used on your research-related information will not be removed or released without your consent unless required by law.

Your rights to privacy are legally protected by federal and provincial laws that require safeguards to insure that your privacy is respected and also give you the right of access to the information about you that has been provided to the sponsor and, if need be, an opportunity to correct any errors in this information. Further details about these laws are available on request to your study doctor.

WHO DO I CONTACT IF I HAVE QUESTIONS ABOUT THE STUDY DURING MY PARTICIPATION?

If you have questions about the study, please contact Anne Malott, Project Lead at ---

If you have any concerns or complaints about your rights as a research subject and/or your experiences while participating in this study contact the Fraser Health Research Ethics Board by calling ---.

SUBJECT CONSENT TO PARTICIPATE

Project Title: Understanding Continuity of Care and Shared Decision-Making in Interprofessional Collaborative Maternity Practice in Canada

- *I have read and understood the subject information and consent form and am consenting to participate in the study Understanding Continuity of Care and Shared Decision-Making in Interprofessional Collaborative Maternity Practice in Canada*
- *I have had sufficient time to consider the information provided and to ask for advice if necessary.*
- *I have had the opportunity to ask questions and have had satisfactory responses to my questions.*
- *I understand that all of the information collected will be kept confidential and that the result will only be used for scientific objectives.*
- *I understand that my participation in this study is voluntary and that I am completely free to refuse to participate or to withdraw from this study at any time without effecting my participation in the main study and without changing in any way the quality of care that I receive.*
- *I understand that **I am NOT waiving any of my legal rights** as a result of signing this consent form.*
- *I understand that there is no guarantee that this study will provide any benefits to me.*
- *I have read this form and I freely consent to participate in this study.*
- *I have been told that I will receive a dated and signed copy of this form.*

Subject's Name (Please Print):

Subject's Signature:

Date:

Person Obtaining Informed Consent (Please Print):

Signature:

Date:

APPENDIX E

OBSERVATIONAL GRID

The following observational grid was used to promote a consistent approach to data collection at each practice. Specific considerations related to each of the research questions. Observations were made in the clinic waiting room; during collaborative interactions such as educational rounds, team meetings or hallway interactions; and walking through the community where the practices were located.

Research Questions	Specific Considerations	Observations
1. What were the social, political and structural issues that led to the development of three varied interprofessional collaborative models of maternity care in Canada?	Observe the social situation: Where is the clinic geographically located? What is the city or town size? Is the clinic population predominantly urban or rural? How dispersed are the people in where they live? How accessible is the clinic? Is it on a bus route? What is the parking situation? Is it highway accessible? Where is it in relation to town centre? What observations can I make about people in the clinic? Appearance? Ethnicity? Race? What languages are being spoken? Are other children present? Are the women with or without partners or extended family? Based on observation alone do I have an impression of the socio-economic status of the women in the waiting room?	
2. What are the characteristics of interprofessional collaborative maternity practices and how do they shape shared decision-making and continuity of care?	<p>Recognizing that I will not be observing clinical care am I seeing any evidence of how decisions are made? Are there any hallway conversations that give impressions regarding how decisions are made? Are women reading any documents that discuss shared decision-making or the role of women in decision-making? How are birth plans utilized?</p> <p>What observations can I make around how continuity of care is provided? Is it primarily informational, management or continuity of carer? What information is being shared and how does that happen? Are there handover reports or team meetings where information is shared? Who presents and what observations can I make about voice and inclusion, respect, hierarchy, power or dominance? Does one person formally or informally chair the meetings? If so, how did this person come to have this role? How is a meeting called to order? Who does this? Does any group member set an agenda or take minutes? How are these roles assigned? Is there any evidence of philosophical difference toward birth, interdisciplinary rivalry, disrespect or professional inequities?</p>	

<p>3. How is a woman-centred philosophy enacted in interprofessional collaborative models at the level of team interactions and provider-patient encounters with regard to decision-making and continuity of care?</p>	<p>What are the logistical issues of arranging call, coverage, continuity of carer, postpartum follow up, communication/sharing of information? What is the process for care management? How does the care management plan become modified and shared back with the group? Is there a designated coordinator of care for each patient? Are there explicit policies or guidelines for reporting to the coordinator when issues arise? Is an electronic medical record used? Who has access to the record? If not, who how and when do team members have access to records? Can any observations be made that reflect the woman's role in sharing information? Do the women carry their own records or bring back letters of consultation to the coordinating provider? Do care providers appear content with the process of sharing information? Does it appear to be working well or are there challenges? Does the organization of care appear to prioritize the needs of women or providers? Is there any evidence of flexibility of scheduling of prenatal appointments? If women are late for appointments how is it handled?</p>	
<p>4. What are the experiences of recipients of care in interprofessional collaborative maternity care models?</p>	<p>Can any observations be made that indicate satisfaction with care? Are women socializing in the waiting room before group sessions begin or are they talking about seeing each other outside the program? Can any observations be made that provide evidence of support received from group members? Can any observations be made that indicate confidence or self-efficacy for parenting that the women attribute to participating in the model? How do the women behave when their names are called for appointments? Do they interact with staff? Is there any evidence of relationship development between the patients and staff? Does staff know their name or ask them questions about their families?</p>	
<p>5. What are the experiences of staff working in interprofessional collaborative maternity care models?</p>	<p>Can I make any observations that give impressions about satisfaction or dissatisfaction among the staff? Are they courteous with each other and/or with other staff? How do the clinical care providers and administrative support staff interact? Are there any behaviours of dominance or authority; or submissiveness? How do the administrative staff relate to each other? Is anyone 'in charge' in the office? How does administrative staff greet the patients? How do care providers interact with patients? Do they call them by name? Do they make any comments that might indicate that they know the woman? Does the staff members complain, sigh or appear distressed with workload or acuity of patients? Do I hear any conversations about challenges with the organizational model?</p>	

APPENDIX F

ETHICS APPROVAL: WESTERN UNIVERSITY



Research Ethics

Use of Human Participants - Initial Ethics Approval Notice

Principal Investigator: Dr. Marilyn Ford-Gilboe
File Number: 104586
Review Level: Full Board
Protocol Title: Understanding Continuity of Care and Shared Decision-Making in Interprofessional Collaborative Maternity Practices in Canada. Short Title: WC-3 Women-Centered Collaborative Care Study
Department & Institution: Health Sciences\Nursing, Western University
Sponsor: Ontario Graduate Scholarship

Ethics Approval Date: November 01, 2013
Ethics Expiry Date: June 30, 2015

Documents Reviewed & Approved & Documents Received for Information:

Document Name	Comments	Version Date
Western University Protocol		
Other	Administrator Care provider Interview Schedule	2013/11/15
Letter of Information & Consent	Women	2013/11/15
Recruitment Items	Brochure	2013/10/23
Other	Interview Schedule for Recipients of Care	2013/11/15
Letter of Information & Consent	Administrators and Care Providers	2013/11/15
Other	Script for Invitation to Participate	2013/11/15
Instruments	Self Administered Recipient of Care Questionnaire	2013/11/15
Instruments	Self Administered Staff Questionnaire	2013/11/15
Recruitment Items	Poster-Received	

This is to notify you that the University of Western Ontario Health Sciences Research Ethics Board (HSREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the Health Canada/ICH Good Clinical Practice Practices: Consolidated Guidelines; and the applicable laws and regulations of Ontario has reviewed and granted approval to the above referenced study on the approval date noted above. The membership of this HSREB also complies with the membership requirements for REB's as defined in Division 5 of the Food and Drug Regulations.

The ethics approval for this study shall remain valid until the expiry date noted above assuming timely and acceptable responses to the HSREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the University of Western Ontario Updated Approval Request form.

Member of the HSREB that are named as investigators in research studies, or declare a conflict of interest, do not participate in discussions related to, nor vote on, such studies when they are presented to the HSREB.

The Chair of the HSREB is Dr. Joseph Gilbert. The HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 0000940.

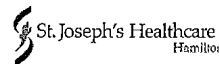
Signature _____

APPENDIX G

ETHICS APPROVAL: MCMASTER UNIVERSITY



Hamilton Health Sciences



Hamilton Integrated Research Ethics Board (HIREB)

293 Wellington St. N., Suite 102, Hamilton, ON L8L 8E7

Telephone: 905-521-2100, Ext. 42013

Fax: 905-577-8378

February 18, 2014

PROJECT NUMBER: 14-090

PROJECT TITLE: Understanding Continuity of Care and Shared Decision-Making in Interprofessional Collaborative Maternity Practices in Canada

PRINCIPAL INVESTIGATOR: Anne Malott

This will acknowledge receipt of your email dated February 12, 2014 which enclosed revised copies of the Information/Consent Forms, Outstanding Signatures and the Application Form along with response to the additional queries of the Board for the above-named study. These issues were raised by the Hamilton Integrated Research Ethics Board at their meeting held on February 5., 2014. Based on this additional information, we wish to advise your study has been given *final* approval from the full HIREB.

The following documents have been approved on both ethical and scientific grounds:

- The submission
- Study Protocol version dated December 10, 2013
- Information/Consent Form – Women version dated January 10, 2014
- Information/Consent Form – Staff version dated January 10, 2014
- Recruitment Poster version dated January 13, 2014
- Script for Invitation to Participate version dated December 10, 2013
- Letter of Invitation for Clinic Staff version dated January 13, 2014
- Study Brochure version dated January 13, 2014
- Interview Schedule for Women version dated January 13, 2014
- Interview Schedule for Staff version dated January 13, 2014
- Questionnaire for Women version dated January 13, 2014
- Questionnaire for Staff version dated January 13, 2014
- Participant Tracking Form

The following documents have been acknowledged:

- Western University Ethics Approval DATED November 1, 2013

Please note attached you will find the Information/Consent Forms and Recruitment Poster with the HIREB approval affixed; all consent forms/posters used in this study must be copies of the attached materials.

The Hamilton Integrated Research Ethics Board operates in compliance with and is constituted in accordance with the requirements of: The Tri-Council Policy Statement on Ethical Conduct of Research Involving Humans; The International Conference on Harmonization of Good Clinical Practices; Part C Division 5 of the Food and Drug Regulations of Health Canada, and the provisions of the Ontario Personal Health Information Protection Act 2004 and its applicable Regulations; for studies conducted at St. Joseph's Hospital, HIREB complies with the health ethics guide of the Catholic Alliance of Canada

APPENDIX H

ETHICS APPROVAL: FRASER HEALTH AUTHORITY

FHREB 2013-141

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Fraser Health Research Ethics Board
 FHA, Evaluation and Research Services
 #400, 13450 102nd Avenue, Surrey, BC V3T 0H1
 Phone: 604.587.4436 Fax: 604.930.5425

CERTIFICATE OF FHREB APPROVALS

Official Notification - FHREB Number (to be used on all future correspondence): FHREB 2013-141				
Principal Investigator: CARTY, Elaine		Hospital/Facility & Department: UBC Midwifery/Family Medicine		
Institution(s) or Geographical Areas where research will be carried out: Jim Pattison Outpatient Care and Surgical Centre				
Co-Investigator(s): Anne Malott, Lynne Palmer, Dr. Marilyn Ford-Gilboe, Dr. Anita Kothari, Dr. Karyn Kaufman				
Funding Agencies and/or Corporate Sponsor: Unfunded				
Title: Understanding Continuity of Care and Shared Decision-Making in Interprofessional Collaborative Maternity Practices in Canada				
Documents Included in this Approval	Date of Approval	Date of Expiry	Type of Approval	Approval of the FHREB
<ul style="list-style-type: none"> • Application for Initial Ethical Review, 2013 December 12 • Researcher Response Form, 2014 January 13 • Study Protocol & Proposal Jan 13, 2014 • Letter of Information and Consent for Women Jan 13, 2014 • Letter of Information and Consent for Staff Jan 13, 2014 • Invitation to Participate Staff Jan 13, 2014 • Brochure Jan 13, 2014 • Study Poster Jan 13, 2014 • Script for Invitation to Participate Jan 13, 2014 • Interview Schedule for Women Jan 13, 2014 • Interview Schedule for Staff Jan 13, 2014 • Questionnaire for Women Jan 13, 2014 • Questionnaire for Staff, 2014 January 13 • Participant Tracking Form, 2014 January 13 	2014 January 30	2015 January 30	Initial Approval; Delegated Review	

FHREB 2013-141

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<ul style="list-style-type: none"> Amendment Form, 2014 July 04 Study Protocol & Proposal July 04, 2014 Letter of Information and Consent for Women July 04, 2014 Letter of Information and Consent for Staff July 04, 2014 	2014 July 07	2015 January 30	Amendment Approval; Delegated Review	
<ul style="list-style-type: none"> Annual Renewal Form, 2015 January 19 Letter of Information and Consent for Women July 04, 2014 Letter of Information and Consent for Staff July 04, 2014 	2015 January 21	2016 January 21	Annual Renewal; Delegated Review	
<ul style="list-style-type: none"> Annual Renewal Form, dated December 8, 2015 	2016 January 21	2017 January 21	Annual Renewal; Delegated Review	

CERTIFICATION:**With respect to clinical trials:**

1. The membership of the Fraser Health Research Ethics Board complies with the membership requirements for research ethics boards as defined in Part C Division 5 of the Food and Drug Regulations and the Tri-Council Policy Statement.
2. The Fraser Health Research Ethics Board carries out its functions in a manner consistent with Good Clinical Practices.
3. The Fraser Health Research Ethics Board has reviewed and approved the clinical trial protocol and the informed consent form for the trial which is to be conducted by a qualified investigator named at the specified clinical trial site. This approval of the documentation listed above and the views of the Fraser Health Research Ethics Board have been documented in writing.

With respect to delegated review:

A co-chair of the FHREB has reviewed and approved the documentation listed above for the forenamed research study in accordance with the FHREB Policy on "Ethical Conduct of Research and Other Studies Involving Human Subject", the Tri-council Policy Statement: Ethical Conduct for Research Involving Human", and the "International Conference on Harmonisation Guidance E6: Good Clinical Practice E6: Consolidated Guidelines".

With respect to full board review:

Full FHREB review and approval of the documentation listed above was completed for non-expedited review in accordance with the FHREB Policy on "Ethical Conduct of Research and Other Studies Involving Human Subjects", the Tri-council Policy Statement: Ethical Conduct for Research Involving Human" and the "International Conference on Harmonisation Guidance E6: Good Clinical Practice E6: Consolidated Guidelines".

The FHREB approval for this study expires ONE year from the approval date of this certificate. Researchers must submit a Request for Annual Renewal for ongoing research studies prior to the expiry date in order to receive annual re-approval.

APPENDIX I

ETHICS APPROVAL: THE UNIVERSITY OF BRITISH



The University of British Columbia
Office of Research Services
Behavioural Research Ethics Board
Suite 102, 6190 Agronomy Road, Vancouver, B.C. V6T 1Z3

CERTIFICATE OF APPROVAL - MINIMAL RISK

PRINCIPAL INVESTIGATOR: Elaine A. Carty	INSTITUTION / DEPARTMENT: UBC/Medicine, Faculty of/Family Practice/Midwifery	UBC BREB NUMBER: H13-03561
INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:		
Institution		Site
Other locations where the research will be conducted: Jim Pattison Outpatient Care And Surgical Centre		
CO-INVESTIGATOR(S): Anne Malott		
SPONSORING AGENCIES: N/A		
PROJECT TITLE: Understanding Continuity Of Care And Shared Decision-Making In Interprofessional Collaborative Maternity Practice In Canada.		

CERTIFICATE EXPIRY DATE: January 29, 2015

DOCUMENTS INCLUDED IN THIS APPROVAL:	DATE APPROVED: January 29, 2014	
Document Name	Version	Date
Protocol:		
Study Protocol & Proposal	N/A	December 12, 2013
Consent Forms:		
Letter of Consent and Information for Women	N/A	January 13, 2014
Letter of Information and Consent for Staff	N/A	January 13, 2014
Advertisements:		
Brochure	N/A	December 12, 2013
Study Poster	N/A	December 12, 2013
Questionnaire, Questionnaire Cover Letter, Tests:		
Interview Schedule for Women	N/A	December 12, 2013
Interview Schedule for Staff	N/A	December 12, 2013
Questionnaire for Staff	N/A	December 12, 2013
Questionnaire for Women	N/A	December 12, 2013
Letter of Initial Contact:		
Script for Invitation to Participate	N/A	December 12, 2013
Invitation to Participate Staff	N/A	December 12, 2013
Other Documents:		
Recipients of care Demographic Questionnaire	N/A	November 14, 2013
Brochure	N/A	October 23, 2013
Letter of Information and Consent for Women	N/A	November 15, 2013
Script for Invitation to Participate	N/A	November 15, 2013
Letter of invitation for Interview	N/A	October 23, 2013
Western University REB application	N/A	October 23, 2013
Administrator/Care Provider Interview Schedule	N/A	November 15, 2013
ETHICS APPROVAL FROM WESTERN 104586 DEC 05 2013	N/A	December 5, 2013
Interview Schedule for Women	N/A	November 15, 2013
Fraser Health Co-I letter	N/A	December 27, 2013
Western University REB application attachment Staff Questionnaire	N/A	November 14, 2013
Study Poster	N/A	November 14, 2013
Letter of Information and Consent for Staff	N/A	November 14, 2013

The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.

APPENDIX J

Epilogue

Since the completion of this study two of the four practices have reverted back to uni-professional care speaking to the challenges and vulnerability of these practices. In follow up conversations, staff from the *Shared Care Model* indicated that the Health Authority did not fund or provide support for the preferred electronic medical record (EMR) and required the practice to adopt the same record used for the broader system which was not as accessible. The practice determined that reduced accessibility limited continuity of information affecting the quality of care across the interprofessional groups. Correspondence from the *Midwife-Physician Partnership* indicated that retirement of key personnel left a void in leadership that jeopardized team functioning in that practice. Overwhelming organizational and administrative demands further threatened the group until the challenges made sustainability impossible. Insights gained through examination of how collaboration is enacted, and attention to facilitators and barriers that influence sustainability are critical if interprofessional collaborative maternity care practices are to be successful.

CURRICULUM VITAE

Name	Dorothy Anne Margaret Malott
Post-secondary Education and Degrees	<p>Mohawk College of Nursing Brantford, Ontario, Canada 1981-1984 RN</p> <p>University of Windsor, Windsor, Ontario, Canada 1984-1987 Diploma of Public Health, BScN</p> <p>Case Western Reserve University Cleveland, Ohio 1990-1993 MSN, Midwifery Certificate</p> <p>Western University London, Ontario, Canada 2011-2016 PhD</p>
Honours and Awards	<p>Province of Ontario Graduate Scholarship 2012-2013</p> <p>Alan Blizzard Award Society for Teaching and Learning in Higher Educations (STLHE) for contribution to interprofessional education 2012</p>
Related Work Experience	<p>Academic Appointment Teaching Assistant/Sessional Instructor McMaster University, Midwifery Education Program 1995-2003</p> <p>Assistant Professor McMaster University, Midwifery Education Program 2003-2006</p> <p>Associate Professor McMaster University, Midwifery Education Program 2006-present</p> <p>Clinical Appointment Registered Midwife Senior Partner Community Midwives of Hamilton, Ontario</p> <p>Registered Nurse, Childbirth Educator Labour & Delivery Hamilton Health Sciences Corporation 1994-1997</p>
Publications	

Gray, M., **Malott A.M.**, Murray-Davis, B., Sandor, C. (2016). A scoping review of how new midwifery practitioners transition to practice in Australia, New Zealand, Canada, United Kingdom and The Netherlands. *Midwifery* on line September 2016. DOI information: 10.1016/j.midw.2016.09.018

Malott, A.M., Darling, E. Third stage management. In *Comprehensive Midwifery: An Interactive Approach to the Theory and Evidence of Practice* Hutton, E.K. & Murray-Davis, B. Eds.

Malott, A.M. Section Editor. Complications in Labour and birth. In *Comprehensive Midwifery: An Interactive Approach to the Theory and Evidence of Practice* Hutton, E.K. & Murray-Davis, B. Eds

Stoll, K., Hauk, Y., Downe, S., Edmonds, G., **Malott, A.M.**, McNiven, P., Swift, E., Thomson, G., Hall, W. (2016). Cross-cultural development and psychometric evaluation of a measure to assess fear of childbirth prior to pregnancy. *Sexual & Reproductive Healthcare*. June (8), 49–54. DOI: <http://dx.doi.org/10.1016/j.srhc.2016.02.004>

Malott A.M., Kaufman K., Thorpe J., Saxell L., Becker G., Paulette .L, Ashe A., Martin K., Yeates L., Hutton E.K. (2012). Models of organization of maternity care by midwives in Canada: a descriptive review. *Journal of Obstetrics and Gynaecology of Canada*, 34(10):961-970.

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Murray-Davis B, Marion A., **Malott, A.M.**, Reitsma A., Hutton E.K. (2012). Women's experiences of participating in the early external cephalic version 2 (EECV2) trial. *Birth*, 39(1), 1-9.DOI: 10.1111/j.1523-536X.2011.00510.x

McDonald, S.D., Pullenayegum, E., Bracken, K., Chen, A.M., McDonald, H., **Malott, A.M.**, Hutchison, R., Haley, S., Lutsiv, O., Taylor, V., Good, C., Hutton, E., Sword, W. (2012). Comparison of midwifery, family medicine and obstetric patients' understanding of weight gain during pregnancy: a minority of women report correct counseling. *Journal of Obstetrics and Gynaecology of Canada*. 34(2):129-135.

Malott A.M., Murray Davis B, McDonald, Hutton EK. (2009). Midwifery care in eight industrialized countries: how does Canadian midwifery compare? *Journal of Obstetrics and Gynaecology Canada*. 31(10), 974-979.

Malott A.M. (2008). Teaching skills for cultural competence: Are midwives prepared for practice? *Canadian Journal of Midwifery Research and Practice*. 7(3), 19-29.

Peer Reviewed Presentations

Malott A.M. Interprofessional Partnerships: The Challenges and Facilitators to Collaborative Care. Canadian Association of Midwives Annual Conference. October 26-28, 2016. Victoria, BC

Malott A.M. A Multiple Case Study Exploring Inter-Professional Collaborative Maternity Care Programs in British Columbia. Canadian National Perinatal Research Network Meeting. February 11, 2016. Banff, Alberta

Malott A.M WC-3: Woman Centred Collaborative Care
Collaborative models and continuity of care: Can they co-exist? (Poster Presentation)
Association of Ontario Midwives Annual Conference. May 17-19, 2016. Niagara, Ontario

Malott A.M. Integrating Student Voices in the creation and evaluation of preparation modules for international placement. European Midwifery Association Conference. Maastricht, The Netherlands. November 29-30, 2013

Malott A.M. Organizational models of midwifery care across Canada: Maintaining principles while maximizing impact. Association of Ontario Midwives Annual Conference Conference 2013. Hockley Valley Resort, May 6-8, 2013

Malott A.M, Gately C. Interprofessional Education in the Inner City: Promoting Collaboration and Comprehensive Care of Marginalized Populations. *Promoting Health Equity: Action on the Social Determinants of Health* Conference. Ryerson University, Toronto, February 12, 2011

Marshall, D., Murray-Davis, B., Solomon, P., **Malott, A.M.**, Shaw, E., Dore, K., Mueller, V. The team observed structured clinical encounter (TOSCE) for maternity care: A workshop demonstrating its use as an assessment tool for teaching and learning. *Collaborating Across Borders III* Conference, Arizona. Nov 2011

Murray-Davis B, Hutton EK, McDonald H., **Malott AM.**, McNiven P. Why Do Women Choose Home Birth? Canadian Association of Midwives Conference: *The Place of Birth*, Edmonton. October 6-8, 2010

Murray-Davis B, Hutton EK., McDonald H, **Malott AM**, McNiven P. Keeping Homebirth Safe: Screening Criteria Used by Midwives. Canadian Association of Midwives Conference: *The Place of Birth*, Edmonton. October 6-8, 2010

Malott AM, Wise C. Dodging bullets with confidence: creating an asynchronous web based midwifery course. *Learning Technologies Symposium*. McMaster University, Hamilton, April 20, 2010

Malott AM, Kent N. Inter professional teaching: Pitfalls and pearls
Association of Professors of Obstetrics & Gynecology of Canada
Toronto, Ontario, Dec, 2007

Malott AM. Midwifery Outcomes in Ontario. *Len Lottimer Clinical Update Day* 2006, Michelangelo Banquet Centre, Hamilton, Ontario, October 25, 2006

Malott AM. Supporting Breastfeeding Women. *Regional Lactation Committee Annual Conference*, Royal Botanical Gardens, Burlington, Ontario, Jun, 2006

Invited Presentations

Malott AM. ALARM faculty presentations. SOGC ALARM course, Hamilton, Apr 13-14, 2010

Malott AM, Midwifery in Canada: the growth of a “new” profession. Linkoping, Sweden. March 2010

Malott AM. ALARM faculty presentations. Society of Obstetricians and Gynecologists of Canada ALARM course, Hamilton, Apr 8-19, 2009

Malott AM. Reducing postpartum hemorrhage. St. Joseph’s Health System International Outreach Program. Mbarara, Uganda, Jan 2009

Malott AM, Hutchison, R. Active management of the third stage of labour. St. Joseph’s Health System International Outreach Program. Gulu, Uganda, Jan 2009

Malott AM, Hutchison, R. Neonatal Resuscitation: practical skills for saving lives. St. Joseph’s Health System International Outreach Program. Gulu, Uganda, Jan 2009

Malott AM. Interprofessional education: positioning ourselves for the future. McMaster University, Health Sciences Education Retreat, Burlington, Ontario, Jun 25, 2008

Malott AM. ALARM faculty presentations. Society of Obstetricians and Gynecologists of Canada ALARM course, Toronto, Apr 20-21, 2008

Malott AM. Midwifery in Canada. Midwifery Education Program, College of Pilsen. Pilsen, Czech Republic, Jan 24, 2008

Malott AM. Midwifery in Canada. Midwifery Education Program, University of Prague. Prague, Czech Republic, Jan 25, 2008

Malott AM. Issues in Gender and Health: Intimate Partner Violence, the Role of the Midwife, 5th Biennial May Cohen Lecture in Women’s Health, Hamilton, Ontario, Oct, 2007

Malott AM., Bates S, Shaw E. Obstetrical Consultation and Collaboration, McMaster University, Hamilton, Ontario, Sept, 2007

Malott AM, McDonald, H. Teaching on the Fly: Advanced Preceptor Workshop, Midwifery Education Program, Toronto, Ontario, Mar 26, 2007

Malott AM. Inter professional Collaboration in Obstetrics, Inter professional Health care Conference, McMaster University, Hamilton, Ontario, Jan, 2007