Apple Tree Maternity: A Qualitative Exploration of the Development of a Rural Collaborative Interprofessional Maternity Care Service

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ABSTRACT

Introduction: There is currently a maternity care crisis in Canada, with many of the obstetricians and family physicians reaching retirement age in the next 10 years. Primary midwifery care services may offer solutions. However, due to the many constraints and difficulties faced by midwives practicing in rural settings, there is an emerging interest in exploring interprofessional collaborative models of maternity care as a possible solution to the crisis. This study documents the process and experiences of care providers in establishing and providing collaborative interprofessional maternity care in rural British Columbia.

Methods: Semistructured interviews were conducted with key stakeholders (primary care providers and allied health professionals) working at Apple Tree Maternity. Interviewees spoke to both the process of establishing a new collaborative interprofessional model of care and the experience of working and providing care within the model.

Findings: Four main themes emerged through the dialogue with the stakeholders: motivation for collaboration; challenges and barriers
INTRODUCTION

There is currently a maternity care crisis in Canada, largely as a result of the significant decline during the last two decades in the number of physicians and other health care professionals who provide maternity care, particularly intrapartum care. Because many of the obstetricians and family physicians currently practicing maternity care will reach retirement age in the next 10 years, this decline is expected to continue. Since regulation in 1998, midwifery in British Columbia (BC) has grown significantly, and in 2012 to 2013, 16% of births were attended by midwives. Considering that 70% of births in BC are considered to be of low risk and within the scope of midwifery care, primary midwifery care services may address the growing recognition of and consumer demand for midwifery services in the province, particularly in rural areas.

Because of the decline in the delivery of maternity care services, women in all settings face increasing difficulties accessing maternity care. Difficulties in rural communities are often magnified by specific challenges, including [1] limited access to local services, due to travel distance and hospital closures; [2] difficulty in recruiting and retaining physicians and nurses due to a number of factors, including concerns about liability and lifestyle, being continuously on call, and being isolated; and [3] the reluctance of many practitioners to offer women local birth in the absence of cesarean section backup.

Midwives in BC often face structural barriers to rural practice that create concerns about integrating into local maternity care cultures, obtaining local hospital privileges, having a low client volume and sustaining a practice, being continuously on call, and achieving a work-life balance. As the practice of midwifery continues to grow in BC and as access to and delivery of rural maternity care services continue to decline across Canada, interest in interprofessional collaborative models of maternity care as possible solutions to the rural maternity crisis in Canada is emerging.

Examples of such models have begun to appear...
Apple Tree Maternity : Exploration qualitative du développement de la prestation de soins de maternité interprofessionnels concertés en milieu

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RÉSUMÉ

Introduction : Les soins de maternité connaissent actuellement une crise au Canada; bon nombre d’obstétriciens et de médecins de famille atteindront l’âge de la retraite au cours de 10 prochaines années. Le recours aux sages-femmes pour la prestation des soins primaires pourrait constituer une solution. Cependant, en raison des nombreuses contraintes et difficultés auxquelles doivent faire face les sages-femmes qui exercent en milieu rural, l’exploration de modèles interprofessionnels concertés de soins de maternité à titre de solution possible à la crise suscite un intérêt grandissant. La présente étude documente le processus et les expériences des fournisseurs de soins en ce qui concerne la mise sur pied et la prestation de soins de maternité interprofessionnels concertés en milieu rural dans la province de Colombie-Britannique.

Méthodes : Des entrevues semi-dirigées ont été menées auprès d’intervenants clés (fournisseurs de soins primaires et professionnels paramédicaux) travaillant à Apple Tree Maternity. Les personnes interviewées se sont prononcées tant sur le processus de la mise sur pied d’un nouveau modèle de soins interprofessionnels concertés que sur leur expérience de travail et la prestation de soins dans le cadre de ce modèle.

Résultats : Les discussions menées avec ces intervenants nous
ont permis de dégager quatre thèmes principaux : motivation à participer à des soins concertés; défis et obstacles en matière de soins concertés; attributs et avantages des soins concertés; et qualités de base et recommandations pour la réussite de la concertation interprofessionnelle. En se fondant sur leur expérience quant à la mise sur pied d’un nouveau modèle de soins de maternité interprofessionnels concertés en milieu rural et sur leur expérience de travail dans le cadre d’un tel modèle, les participants à l’étude ont déterminé que les qualités de base requises et les recommandations pour la réussite de la concertation interprofessionnelle en milieu rural étaient les suivantes : confiance et respect mutuels; philosophie commune en matière de soins, engagement mutuel et volonté authentique de collaborer; communication claire et efficace; fait de s’assurer que le modèle de concertation répond bien aux besoins particuliers des collectivités visées; soutien communautaire; culture institutionnelle axée sur la coopération; et modalités de rémunération et structures de facturation novatrices.

Conclusion et conséquences pour la pratique : La présente étude a révélé un certain nombre d'attributs en matière de collaboration qui reflètent ceux qui ont été mis au jour par d'autres. De plus, les participants à l'étude ont cerné des défis qui sont particuliers au milieu rural. La tenue d'autres recherches documentant les expériences des fournisseurs de soins en matière de concertation interprofessionnelle en milieu rural s'avère justifiée. L'exploration et la documentation des expériences en matière de pratique concertée du point de vue de la clientèle, tant en milieu rural qu’urbain, s'avèrent également justifiée. La formulation de suggestions significatives en matière de modification de politique qui faciliteront tant la concertation de la pratique que l’amélioration des soins prodigués aux femmes en milieu rural ne devrait être effectuée qu’après la tenue de telles recherches. Ces dernières s'avèrent cruciales compte tenu de la crise qui sévit en Colombie-Britannique en matière de soins de maternité et de la nécessité de soutenir des modèles durables de soins de maternité en milieu rural.

MOTS CLÉS
Soins de maternité interprofessionnels, soins de maternité en milieu rural, soins concertés, entrevue de recherche qualitative

Le présent article a été soumis à l’examen collégial.
of working within this innovative model of care has been published to date.

Apple Tree Maternity, an integrated maternity care clinic inspired in part by the SCBP model, is a recent rural example of an innovative and collaborative interprofessional model of care and was established to provide integrated maternity services to women and families in Nelson, BC, and surrounding communities. The Apple Tree Maternity clinic began accepting clients in April 2014.

This qualitative case study explores and documents [1] the process of designing and implementing the Apple Tree Maternity model and [2] the experiences of the primary care providers working within this new collaborative interprofessional model of primary maternity care. The knowledge obtained with this case study will contribute to a greater understanding of the factors and conditions that contribute to successful collaborative interprofessional models of maternity care among care providers in this rural setting.

METHODS

Since research documenting innovative collaborations and interprofessional models of rural maternity care is limited, the approach to data collection and analysis in this study was qualitative and exploratory.

We invited the primary care providers [two family physicians and three midwives] and the allied maternity care providers [two childbirth educators, doulas, and a lactation consultant], who together make up the Apple Tree Maternity team, to participate in the study. In-depth, in-person interviews were conducted with participants in regard to the process of establishing a new collaborative interprofessional model of care and the experience of working and providing care within the model.

Setting

Nelson, located in the mountainous southern interior of BC, is a rural community of about 10,000 people. The Apple Tree Maternity team of family physicians, midwives, and allied maternity care providers gives maternity care to all women and their families living in the West Kootenay area and planning to give birth at Kootenay Lake Hospital in Nelson or at home [in or near Nelson]. During their first 20 weeks of pregnancy, all women attend one-on-one meetings with one of Apple Tree Maternity’s primary care providers. Women then have the choice of continuing on in an individual care stream, with one-on-one visits continuing throughout pregnancy, or participating in a group care stream. Group care sessions begin approximately halfway through the pregnancy and continue post partum. Group care sessions are facilitated by an Apple Tree Maternity primary care provider and a childbirth educator. Each group session provides women an opportunity for one-on-one discussion with a primary care provider, as well as the option of scheduling additional visits outside of group sessions when other issues arise.

The desire for a more flexible call schedule was a primary motivation behind setting up Apple Tree Maternity.

Data Collection

We applied for and received ethics approval from the University of British Columbia Behavioural Research Ethics Board. Participation in the interviews was voluntary, and informed consent was obtained from participants prior to each interview. Interview guides were created for the primary care providers and the allied health providers on the basis of a review of the literature on models of interprofessional collaborative maternity care and models of rural maternity care.

Open-ended questions elicited key stakeholders’ narratives of their experiences of establishing and working in an interprofessional care team, including their experiences of benefits and the barriers and challenges they faced. Interviews were 45 to 100 minutes long and were held in a private space at the Apple Tree Maternity clinic or at a location chosen by the participant. They were audiorecorded with participants’ permission.

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Pregnancy can bring joy or sadness to a family. When a woman knows she is pregnant she must decide when to tell others and whom to tell. How the news is shared has been changing over the centuries. Before the 19th C. the news of pregnancy would have been shared person to person or by written letter. After the telephone was invented and successful used in Canada in 1876 pregnancy news could be shared by phone. News sharing since the advent of the Internet includes Facebook posts, ultrasound photos on Instagram, communications on Snapchat or 140 character announcements on Twitter. In recent years, since gender determination has been possible through ultrasound, pregnancy is often communicated at the same time as a gender during a gender reveal event.

Sharing the news has been depicted in both traditional western art and contemporary art over the centuries. Artists depictions are often based on the Christian story of the Visitation; Mary, the mother of Jesus sharing her pregnancy news with Elizabeth, her cousin. This image of woman sharing news with another woman is prevalent and heart-warming. This image is rare in Eastern religions. It is difficult to find sharing the news art that depicts the mother of Muhammad, Aminah bint Wahb, during pregnancy or of the mother of Buddha, Queen Maya of Sakya.
The Visitation
Pontormo (Jacopo Carrucci), 1528-29
Pieve di San Michele, Carmignano, Italy.

The Greeting
Bill Viola, 1995
Slow motion modern video based on the painting of The Visitation by Pontormo (above)

https://www.youtube.com/watch?v=Dg0IyGUVXaQ

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Elaine is a regular contributor to the Canadian Journal of Midwifery Research and Practice.
The Visitation
Romare Beardon, 1941
Museum of Modern Art, New York

The Visitation
Dennis Creffield, 1940s
Private Collection
The Visitation
Ursula O’Farrell,
private collection, Seattle, Washington

The Visitation,
Oskar Kokoschka, 1912.
Belvedere Museum, Vienna
Data Analysis

Audio recordings were transcribed prior to analysis. The student principal investigator and the co-investigator independently reviewed the interview transcripts, identified common themes, and created two separate thematic codebooks. The codebooks were compared and were found to be highly congruent. The principal investigator used the finalized codebook to summarize the themes in narrative form.

FINDINGS

All eight of the key stakeholders were interviewed. Four main themes emerged from our data analysis: (1) motivation for collaboration, (2) challenges and barriers to collaborative care (including challenges unique to providing collaborative care in a rural setting), (3) attributes and benefits of collaborative care, and (4) core qualities and recommendations for successful interprofessional collaboration.

Motivation for New Collaboration

All of the primary care providers stated that the desire for a more flexible call schedule was a primary motivation behind setting up Apple Tree Maternity. Most of the participants described the stress of trying to balance their on-call schedule with other personal and professional commitments and felt such a balance to be unsustainable in the long term. Each of the participants described the SCBP model as influential in the creation of Apple Tree Maternity. In particular, the participants described being drawn to the flexibility of the SCBP call schedule and the possibility of sharing and doing less on call, as well as feeling enthusiastic about the SCBP’s Connecting Pregnancy group care model. Two of the participants described feeling inspired by the SCBP model after returning from a Vancouver workshop sponsored by SCBP and Perinatal Services of British Columbia.

All of the care providers indicated that the opportunity to work as a team was a significant motivation for collaboration. Participants described a long history of working side-by-side in the community and developing collegiality, mutual respect, and trust in one another. These interprofessional relationships, coupled with the recognition of shared philosophies and styles of maternity care as well as a mutual desire to find a more sustainable practice model, fostered a genuine desire to explore formal collaboration.

Attributes and Benefits of Collaborative Care

Interprofessional Relationships Based on Mutual Respect and Trust

All of the participants described the benefits and pleasure of working as part of collegial team of care providers grounded in relationships of mutual trust and respect. One participant highlighted the benefit of having multiple sources of support as part of the Apple Tree care provider team.

The other part that really stands out for me is the support we offer each other…that is huge for me, and I think in terms of the emotional burnout that can happen, I think that part is protective against that.

Mutual Learning and Enhanced Maternity Care

Several participants described the unique and exciting opportunity to learn from each other and enhance the care they could offer women in the community. For example, the family physicians spoke of the opportunity to participate and support home births, some of the midwife participants highlighted the opportunity to provide support to women with more complicated care needs in pregnancy (e.g., using part of a harm reduction program to help women managing methadone addiction), and allied health professionals described the benefit of working alongside the primary care providers to offer expanded care and support options to women in the community.

I think what drew me the most to this model of collaboration was just that opportunity for this synergy between the styles of care…and the greater depth of care that I felt that women would be able to get from this type of model, from a collaborative model, and then ideally out of that would also become a model of sustainability, where instead of just two care providers or three care providers working together you now have five care providers working
together in a meaningful way to provide that good solid women-centred, family-centred care.

**Group Care and Community Building**

All of the participants identified group care as one of the most significant attributes of Apple Tree Maternity’s collaborative model of care. Each of the participants described the joy of participating in group prenatal care, the cofacilitation by primary care providers and allied health professionals, and the satisfaction of community building. Several participants said that another attribute of collaboration was the opportunity to offer postpartum support groups for breastfeeding women and for women with mood issues.

**Challenges to Collaboration**

The participants indicated a number of challenges to collaboration since Apple Tree Maternity opened its doors. They described some of these challenges as unanticipated “kinks” the team would need to work out over time.

**Lack of Sustainability**

One of the most significant challenges described by the family physicians was being able to sustain full-time work as a primary care provider in a collaborative maternity practice while maintaining a family practice, discharging other professional on-call responsibilities, and meeting personal responsibilities. This challenge was described as being of particular concern in a rural context, where the closure of a family practice because of care provider stress and burnout has a significant impact on a community in which there is already a shortage of family physicians. One family physician offered the following appraisal:

*We have a lot less flexibility than the midwives do in terms of our scheduling, because we also are part of other call groups that we need to work around. And then I need to work around my clinic, so I don’t have a lot of flexibility...with this model of care, which I love. It’s great, and I love being able to have that protected time [with women], but it also doesn’t allow me that same adaptability that I used to have in the old model.*

Most of the participants recognized that the SCBP model was not directly transferable to their community. For example, the smaller size of the Apple Tree Maternity call group did not allow for the same call flexibility as SCBP allowed. Whereas some of the participants said that adding another member to the care provider team would be an ideal solution, they acknowledged that this was not feasible due to midwifery college restrictions on the number of members per care provider team and due to insufficient financial resources.

**Home Birth**

Although SCBP offers limited home birth to multiparous women, participants described a long history of demand for home birth in Nelson and spoke of the their desire to offer needed home birth to women in the community.

Several participants stated that midwives providing home birth mentorship to the family physicians posed a challenge to scheduling. Most participants described how this mentorship period had a restrictive effect on the flexibility and sustainability of the call schedule by requiring that two midwives be available to attend a home birth to provide first on-call and home birth backup support when a family physician was first or second on call.

*Our doctors are interested in doing [home birth], so we said...we’ll mentor you to do that [first on call]. So, essentially what that means is that suddenly there are restrictions on the way we can schedule.*

**Billing Structures**

Most participants anticipated challenges with billing under two models of care but ultimately found that the pooled billing structure, modeled on the SCBP model, was less challenging than expected. Several participants identified billing complexities as challenging and indicated a need for an alternative, flexible payment plan to better accommodate all care providers. For example, the current billing structure prevents family physicians from billing for
home birth, and midwives are prevented from billing for care provided to women from certain provinces.

Interprofessional Change

Many participants described collaboration between local hospital maternity care nurses and AppleTree Maternity family physicians as challenging. Participants related a history of collegiality and excellent working relationships developed over time among the members of Nelson’s maternity care provider community. However, most of the participants described pushback from the maternity nurses at the local hospital, who expressed concerns about the family physicians working within the midwifery model of care and how that would affect the division of roles and responsibilities for physician-attended hospital births.

There’s now this expectation that we are acting more like midwives in terms of both charting and the care we’re getting, so there are these expectations, which I have experienced as sometimes being quite amorphous and often not well defined, both from my perspective and the nursing perspective. So I’ve gotten into multiple conflicts with nursing staff around what their expectations versus my expectations of how I’m engaging and how they’re engaging in a particular birth scenario.

Decision Making and Communication

Several participants spoke about the challenges of decision making in a collaborative interprofessional team composed of primary care providers with different professional backgrounds, scopes of practice, and comfort levels around certain clinical decisions. One participant described the need to make clinical decisions on the basis of the team’s “collective experience and collective comfort levels;” which is how participants were negotiating situations as they arose. While all participants saw team meetings as an opportunity to spend time together and make decisions as a team, many described the time burden of meetings for team decision making as a challenge to sustainability.

Core Qualities and Recommendations for Successful Interprofessional Collaboration

When we asked participants to identify the core qualities necessary for successful collaboration, they described several common themes. Most significantly, all participants stated that strong collegial relationships based on mutual trust and respect were foundational for successful collaborative practice. Each participant also indicated the need for a common philosophy of care. Further, many participants identified the need for mutual commitment to successful collaboration and a willingness to work through unforeseen challenges and build something new. In addition, all of the participants stated that clear and effective communication, both internal and external, was essential. Several participants spoke of the need for clarity and principles to guide decision making in order to reduce the meeting time used to revisit issues.

All participants indicated the necessity of developing models of care that are flexible, adaptable, and responsive to the specific needs of each community. Many participants also identified the need for community support and a supportive institutional culture as core to a successful interprofessional collaboration, particularly in a rural setting.

Probably the biggest [quality for successful collaboration] is a willingness to let go of your preconceived notions, your preconceived assumptions, and a willingness to be able to build something new, because I think it has to be new. I really think it needs to be built from the community up. You can use something as a template, but it’s only that. Be very willing and open to change rurally.

DISCUSSION

This study is one of the first to explore care provider attitudes and experiences in the establishment of a collaborative interprofessional maternity care model in a rural setting. Interviews with care providers on the Apple Tree Maternity team indicated four main themes: (1) motivation for collaboration, (2) attributes and benefits of

Apple Tree Maternity care providers expressed their excitement about the increased potential for personal and professional sustainability with a collaborative care model. They were dissatisfied with their current model of separate midwifery and physician maternity practices, primarily because of the need to spend so much time on call. The SCBP model offered an inspiring option for call flexibility. In regard to implementing the model in Nelson, many participants experienced unanticipated challenges, or “growing pains,” that influenced sustainability.

A unique feature of the Apple Tree collaborative model—namely, midwives mentoring physicians in home birth—was identified by most participants as a [hopefully temporary] challenge to the call schedule’s flexibility and sustainability.

All the participants expressed a genuine commitment and desire to collaborate with their colleagues. Many of the participants identified three key motivations for establishing a collaborative interprofessional maternity care practice: [1] the opportunity to work with colleagues with whom they had excellent relationships grounded in mutual trust and respect, [2] the opportunity for shared learning, and [3] the potential for enhanced care for women. Indeed, Avery et al. and Munro et al. identified trust and respect as essential components of successful collaborative maternity care models both in the United States and in rural communities in BC, respectively.4,8 Munro et al. also reported that differences in the scope of practice were barriers to collaboration.4 Some of the challenges in collaboration participants described included complexities that arose from blending different models of care and scopes of practice and from adapting practice to accommodate the collective skills of the team (e.g., home birth and more complicated client care). The need to blend two models of care at times posed a challenge to clinical decision making (e.g., eligibility for home birth and the offer of home vaginal birth after cesarean birth).

Munro et al. cited the difference between skill sets and funding models of physicians, nurses, and midwives as a significant barrier to interprofessional collaboration in a rural maternity care setting.4 Indeed, the authors recommended significant changes to policy to facilitate collaboration between midwives and family physicians. For the family physicians in particular, maintaining both a maternity care practice at Apple Tree Maternity and a family practice was especially challenging. This was exacerbated in the rural context, particularly while the physicians met other professional responsibilities to the community including other on-call responsibilities, as well as personal and family responsibilities. It was also pointed out there was significant impact of closing a family practice in a rural community where there was already a shortage of family physicians.

STUDY LIMITATIONS

The findings of this study reflect care providers’ experiences of setting up a collaborative maternity care practice in the rural community of Nelson, BC. These experiences may not be identical or similar to those of care providers in other rural communities—in BC, in Canada, or in international jurisdictions—where social, geographical, institutional, or regulatory circumstances are different.

CONCLUSION

This study is one of only a few studies that examine the benefits of and barriers to collaborative practice from the perspective of the care provider. It is also one of the first to examine the challenges to establishing a collaborative practice in a rural setting. However, it is important that further studies of this type are conducted in other rural communities, as it is likely that barriers and challenges to collaborative practice will vary according to conditions in each community. It is essential that future research explores and documents interprofessional collaborative practices in both rural and urban settings from the client’s perspective. Such further research is vital to the informing and improvement of policy, given the maternity care crisis in BC and the need for more-sustainable maternity care models.
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REFERENCES