

A Pilot Project of Collaborative Maternity Education: Understanding Perspectives from Family Medicine and Midwifery

Projet pilote de formation concertée en soins de maternité: Comprendre les points de vue de la médecine familiale et de la pratique sage-femme

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ABSTRACT

Background: In Canada, the decreasing numbers of family physicians and the small number of midwives providing obstetric care have been associated with a decline in access to maternity services. Several studies and policy documents support the development of models to enhance collaboration between midwives and physicians and to expose trainees to these models. A pilot project was undertaken to implement and evaluate an interprofessional learning opportunity involving midwifery students (MWSs) and family medicine residents (FMRs).

Methods: The aim was to describe how FMRs and MWSs develop skills to collaborate, and to identify the feasibility of this type of education. A convenience sample of 12 FMRs and 6 MWSs in a southern Ontario suburban community and their preceptors participated in a series of educational seminars and a clinical placement within the midwifery practice. Qualitative focus groups and interviews were conducted, and data were analyzed using thematic analysis.

Results: Qualitative analysis highlighted themes relating to the engaging of learners, logistical challenges, and the perceived value of interprofessional education (IPE).

Conclusions: This pilot project highlights barriers to and enablers of IPE. The findings will inform the modification of the project for future use and suggest that this project could be a useful model of IPE for primary maternity care.

KEYWORDS

interprofessional education, maternity care, collaboration

This article has been peer reviewed.

RÉSUMÉ

Contexte : Au Canada, le faible nombre de sages-femmes et la chute du nombre de médecins de famille offrant des soins obstétricaux ont été associés à une baisse de l'accès aux services de maternité. Plusieurs études et documents de politique soutiennent l'élaboration de modèles visant à améliorer la collaboration entre les sages-femmes et les médecins, et l'exposition des stagiaires à de tels modèles. Un projet pilote a été lancé en vue d'assurer la mise en œuvre et l'évaluation

d'une occasion d'apprentissage interprofessionnelle visant des étudiantes en pratique sage-femme (EPSF) et des résidents en médecine familiale (RMF).

Méthodes : L'objectif était de décrire la façon dont les RMF et les EPSF acquièrent des compétences en matière de collaboration, et de déterminer la faisabilité de ce type de formation. Dans une communauté de banlieue du sud de l'Ontario, un échantillon de commodité de 12 RMF et de 6 EPSF (et leurs précepteurs) ont participé à une série de séminaires de formation et à un programme de stages cliniques en pratique sage-femme. Des entrevues et des groupes de discussion qualitatifs ont été organisés, et les données ont été analysées au moyen d'une analyse thématique.

Résultats : Une analyse qualitative a fait ressortir les thèmes entourant les facteurs qui favorisent la participation des apprenants, les défis logistiques et la valeur perçue de l'éducation interprofessionnelle (ÉIP).

Conclusions : Ce projet pilote met en relief les obstacles et les facilitateurs propres à l'éducation interprofessionnelle. Les résultats obtenus permettront d'éclairer la modification du projet en vue d'une future utilisation et semblent indiquer qu'il pourrait s'agir d'un modèle utile d'ÉIP dans le domaine des soins de maternité primaires.

MOTS CLÉS :

Éducation interprofessionnelle, soins de maternité, collaboration

Cet article a été évalué par des pairs.

BACKGROUND

Although the number of midwives in Canada has grown, it remains small, and the number of family physicians providing obstetric care has continued to decrease.¹ In 2012, 1,066 midwives in Canada were providing care to women during pregnancy, at birth, and after birth.¹ Despite the growth in numbers over the last decade, midwives are providing limited service in many provinces. Over 80% of midwives in Canada practice in Ontario, British Columbia, and Quebec.¹ In addition, the 2010 National Physician Survey (NPS) reported that only 10.5% of family physicians are providing intrapartum care, down from the 11.1% reported in the 2007 NPS.^{2,3} At 8.5%, Ontario has the lowest proportion of family physicians providing intrapartum care.^{3,4}

The associated decline in access to maternity services has garnered attention from both the provincial and federal governments. The Multidisciplinary Collaborative Primary Maternity Care Project (MCP2) supported the development of models of practice that would support collaboration between midwives and physicians.¹ Similarly, the Primary Health Care Transition Fund's "Babies Can't Wait" project sought to develop interdisciplinary models of care with

obstetric providers.⁵ Yet, research on interprofessional collaboration—defined as “the process for communication and decision making that enables the knowledge and skills of care providers to synergistically influence client care”—has revealed specific barriers (such as financial, legal, and regulatory constraints) to such collaboration within maternity care, as well as conflicts between professional philosophies.⁶⁻⁹

Many policy documents and publications have emphasized the need to expose students and postgraduate trainees to collaborative models by creating training opportunities for collaborative practice. A curriculum that develops collaborative skills and a knowledge and understanding of the practices and philosophies of all maternity care providers has been emphasized.² Despite this emphasis, only a few published Canadian studies from the field of maternity care focus on interprofessional education (IPE), which occurs when two or more professions learn with, from, and about each other.^{7,10} A recent study based in Toronto examined the long-term outcomes of a pilot project involving academic modules and shadowing opportunities for nursing, midwifery, and medical students. The study pointed out that relationship building,

communication skills, and openness to collaboration were necessary components of the development of collaborative knowledge and skills.¹¹

Our pilot project was designed to address this need for collaborative training opportunities by implementing and evaluating a new model of interprofessional maternity care education that encourages the acquisition of collaborative competencies that are necessary for effective interprofessional relationships in future practice. The specific goals were to (1) promote a clear understanding of the roles and responsibilities of midwifery students (MWSs) and family medicine residents (FMRs) and (2) facilitate effective teamwork among learners.

METHODS

Educational Intervention

Educational activity took place between February 2010 and February 2011 in a southern Ontario suburban community with a population of approximately 130,000. The community is home to both a family medicine residency program and a midwifery teaching practice with midwifery preceptors. As there are very few family physician role models involved in intrapartum care in this region, developing competency in obstetric care in a primary care context is difficult for the FMRs. As part of their training, FMRs and MWSs in the region are required to develop interprofessional competencies.

The educational intervention consisted of a seminar series and a clinical placement. The seminar series included a monthly seminar co-presented by an FMR and an MWS. For the interprofessional clinical placements (ICPs), a senior MWS and an FMR were paired in a “shared-care” model within the midwifery practice and were supervised by midwifery preceptors. Clients referred from a family medicine practice or already in midwifery consented to this model of care, in which the FMR and the MWS cared for the client together. The expectation was that the shared-care model would involve (1) the woman’s attending appointments with the FMR and the MWS (either separately or jointly) and (2) communication between the FMR and the MWS about the ongoing plan of management via case review at the weekly midwifery team meeting. Both learners were encouraged to attend the birth and to negotiate specific care roles before, during, and after birth. All FMRs (six) and MWSs (two) who completed clinical placements in this region at the time were sent individual

invitations to participate. Also, as part of their midwifery training, all MWSs participated in IPE electives. The option of participating in the seminar series was shared with students as one of their university-required IPE electives.

Research Evaluation

Research ethics approval was obtained for the evaluation, which was undertaken with both quantitative and qualitative approaches. This article presents the results of the qualitative analysis. The qualitative components consisted of focus groups (one for each group of learners) and individual interviews with family medicine and midwifery preceptors. The focus groups and interviews were conducted by a research assistant and were digitally recorded with consent. Focus groups and interviews were semi-structured and were less than one hour long. Participants answered questions about the intervention’s value in supporting the development of interprofessional competencies, as well as questions pertaining to barriers to and facilitators of collaboration. Recordings were transcribed verbatim, and participants were assigned a numerical code for anonymity. Both preceptors’ and learners’ transcripts were read and coded line-by-line by three researchers, two of whom were independent of the research team. Using open coding, the researchers independently identified categories and themes, and summarized data. New codes, categories, and themes emerging from the data were added throughout the coding process. The codes were finalized through consensus among the researchers. Categories were formed by clustering similar codes; themes were then developed by grouping together similar categories.

RESULTS

The seminar series began in February 2010. The goal was to have 12 seminars presented by FMR and MWS pairs. However, only eight seminars were presented; scheduling challenges resulted in the cancellation of several of the seminars. Seminars were attended at least once by all members of the family medicine faculty and by two of the five midwifery preceptors. All five midwifery preceptors participated in the ICP component of the project by supervising FMRs in the clinical midwifery practice. However, not all midwifery preceptors had the opportunity to supervise an FMR and an MWS working collaboratively in the clinical setting, and some preceptors may have seen

only the FMR in isolation.

All of the available learners completing clinical placements in the region (six FMRs and two MWSs) participated in the seminar series. Also, three additional MWSs chose this option as one of their university-required IPE electives. However, only three FMRs and one MWS were able to participate in the ICP component of the project. All learners (six FMRs and five MWSs) agreed to participate in the evaluation of the intervention by attending their focus group.

The interviews and focus groups identified four primary themes focused on (1) how the project affected learning needs, (2) how it promoted collaboration or (3) prevented collaboration, and (4) how it could be applied to professional practice. In the following discussion of each of the four themes, quoted participants are identified by a numerical code and by their profession or membership in either the preceptor or learner group.

Effect on Learning Needs

All participants were positive about the educational seminars. In particular, they commented on the excellent quality of the seminars and the emphasis on evidence-based findings. Participants commented on how the topic selection encouraged differing opinions and highlighted the similarities and differences between the professions.

One of the things that I did see was, if there were different opinions or that sort of thing, they were able to, you know, say their opinion but respectfully. . . It was all done . . . in a good way. (Midwife 2)

Because of the small number of participants who experienced the shared-care clinical component, fewer comments were about learning in that context. However, case reviews conducted in the clinical setting were seen as beneficial for learning about each profession and for building relationships.

The case review was good . . . just comparing management, you learn a lot about what scopes and things, like if they can order this test and we can't, so I think that was helpful. (MWS 1)

With respect to the ICP component, participants described confusion about the learning objectives of this experience. Specifically, they felt that expectations were not made explicit prior to beginning the learning opportunity. In addition, learners had different goals and expectations for their time at the midwifery clinic. The residents felt

that the low volume of clients at the midwifery clinic was a barrier to gaining obstetric experience.

What I heard our resident say was that it would have been better to be in an obstetrician's office and see 20 patients than at a midwife's office and see five. I totally disagree with that, but that's what he told me. All right, I think five patients and thinking about it and learning about it is far better than 20 patients in a morning . . . We wanted to demonstrate a model of primary care obstetrics that was different from the, you know, quick run-through, see-as-many-people-as-you-can obstetrician model. (Family physician 3)

Differing levels of resident motivation led several midwifery preceptors to speculate as to whether this activity should be mandatory or offered as an optional experience for only those with interest.

I think that if there are medical residents who are planning to be family doctors who want to provide obstetrical care, then this is a fantastic opportunity to learn with us and then also [collaborate] with the midwifery students. (Midwife 4)

Promotion of Collaboration

Several factors promoted skills of collaboration among participants. Many of the FMRs and MWSs were open to interprofessional working and learning. The majority of participants—both learners and preceptors—believed it was beneficial to be exposed to the other profession. They saw this exposure as resulting in greater knowledge about the other profession (including its training and scope of practice) and an appreciation for the similarities between the professions.

I was pleasantly surprised, more than once, by things that I presumed were true about family medicine residents not actually being true. So it was a good time to look at preconceptions of people, based on what their professional affiliations were, and re-evaluate where they stand. (MWS 4)

I think there's a lot more common ground than is recognized . . . When you get down to the basic philosophy, there might only be a couple of different, you know, perspectives or principles. (FMR 3)

Openness to collaboration encouraged the building of informal relationships with members of the other profession. This was seen as being helpful for future

collaboration. Also, existing positive relationships between midwives and family physicians in the community became models that helped to promote collaboration among learners.

The family doctors and the midwives in this community are motivated to work together, and we have . . . a professional working relationship where we respect each other's profession and work collaboratively together. So I think that's good, because you have preceptors who are on both sides, who are used to each other, are familiar with each other. So that's a good learning environment for students. (Midwife 1)

Prevention of Collaboration

Challenges related to logistical issues, perceptions of the other profession, and differing philosophies of care were seen as barriers to collaboration.

Making the seminars a priority within the existing schedule of hospital rounds and within the busy and often conflicting schedules of all involved was difficult. It was difficult for learners to find time to meet in pairs to plan their presentations. The academic schedule had clinical placements beginning and ending at different times. Finally, because of the small number of MWSs placed in the region, the groups had unequal numbers of learners from each profession, which made the MWSs feel pressured to represent their profession.

I think there needs to be more midwives; it doesn't seem like equal, especially during the discussions, the topics in question. If you are the only midwife and the other one is presenting, it's not really a fair [--] that's the only thing I would say is try and recruit more midwifery students. (MWS 3)

Perceptions of the other profession also prevented learning around collaboration. For example, although there was increased appreciation for the other profession, each group still expressed concerns about assumptions or stereotypes and a lack of knowledge about its own profession.

Some of the residents came with preconceived prejudices about midwifery practice. . . one of the reasons for doing this project was to try and break some of those barriers down and change their opinions. (Family physician 3)

I think that one of the challenges is that they

[MWSs] don't come into our clinic to see how we practice; they have assumptions about how we do things. (FMR 5)

Having learners at different levels of training also influenced the perceptions of the other profession. This issue was perceived differently by each group of participants. The MWSs thought that their level of training was fairly well matched with the residents because of their specialized focus.

I think all of us, all the midwifery students, stepped up, and by no means were we below the residents... In certain situations...we knew more than they did because we had been doing obstetrics for three and four years, and they, well, they haven't been so. (MWS 2)

At the same time, the FMRs felt they were at a higher training level than the MWSs.

The fact that we were dealing with potentially...I don't know if there was any first-year...but certainly second- or third-year midwifery students as opposed to, you know...we've gone through all the medical school now and residency; nothing to do with competence, just the level of training...Not necessarily a challenge, but just something to be recognized in that we brought different backgrounds to the table. (FMR 3)

Different approaches or philosophies of care were sometimes difficult to negotiate. Those who participated in the ICP component of the project found negotiating the different approaches to care—particularly issues around informed consent—to be challenging. The FMRs felt midwives did not focus enough on risk when discussing care with clients. Conversely, the MWSs felt they provided more education and information to women than physicians did.

You have to go over, you know, the benefits as well as the risks of going through that path, and sometimes the risks weren't done by the midwife, it was just kind of fluffed over, you know, they wouldn't really go over the outcomes. (FMR 4)

It's just the different model that you come from... where our clients are very [--], we promote that they do education outside and take a very large role in the decision-making process that I know maybe isn't seen through all other patients in different [health care providers'] practices. (Midwife 4)

Underlying the conflicting approaches to care were issues

of power and status. The midwives felt that some residents resisted being taught by them and lacked motivation to learn about obstetrics

The dynamics that exist in a health care system, with physicians having a lot of social power and midwives having less for example, they're going to play out in the educational environment, in an interprofessional environment as well. You're not going to just wipe the slate clean. That was kind of interesting, having to negotiate some of those power dynamics with the residents. (Midwife 1)

Application to Practice

All participants were asked whether they would consider future collaboration between family physicians and midwives. Most participants thought that collaboration would be beneficial for working relationships in the community and for women seeking care.

Both midwifery and family practice preceptors agreed that this experience would translate into new practitioners who would be better able to collaborate in the future. Likewise, learners appeared to be more aware of the need for collaboration in their community following this exposure, and they articulated how this experience would be beneficial in their future practice.

The exposure to it is a good thing . . . I like it personally because when I refer to a midwife, at least I say, knowledgably say, what they are going to do and what it entails. (FMR 1)

Rural settings were mentioned as being a unique context, in which collaboration was necessary.

When these people go off into the rural areas where there aren't a lot of OBs available and they're not doing OB themselves, they can often, you know, they could know and utilize the services of midwives. (Family physician 5)

However, despite this support for collaboration in practice, all of the participants were unanimous in their feeling that the current funding models for each profession are a significant barrier.

On a broader scale of barriers to family medicine and midwifery working together—not in a teaching perspective but just in terms of, you know, regular practice, like, say, me working together with the midwives—is that the midwifery funding model doesn't allow it. So there's a funding issue because they are funded on a global budget, and they are funded

to take over the care of the patient and the baby, and there is no opportunity for the family doctor to remain involved. (Family physician 3)

DISCUSSION

Our study explored the impact of a new model of collaborative maternity care education on the development of interprofessional competency. Although the study was significantly limited by its sample size, some positive effects are apparent. Our seminar series improved learners' knowledge about one another's professions, helped to correct stereotypes, fostered an appreciation of similarities, and promoted future collaboration.

The findings also highlight the benefit of bringing together learners from different professional groups. This is supported by both social learning theory and the contact hypothesis. Social learning theory posits that learning emerges from the social exchanges and interactions between individuals and from learners contributing to each other's understanding.^{12,13} Students who learn together through interaction often "correct each other's bias and false assumptions."¹² According to the contact hypothesis, positive changes in beliefs and attitudes will be maximized and negative stereotypes minimized when different social groups are brought into contact with one another.^{14,15} The importance of minimizing stereotypes has been noted by some other researchers, who assert that stereotyping interferes with interprofessional teamwork.^{14,16} Other authors have also found that both undergraduate and graduate students value the opportunity to work in small groups of varied health professionals.¹⁷⁻²⁰ Such groups help foster a greater understanding of diverse professional roles and create a foundation for future collaboration.^{19,21}

In our study, however, logistical issues such as scheduling and space, persistent assumptions and stereotypes, different approaches to care, and unequal numbers of learners had a negative effect on collaboration. Challenges such as unequal group composition (in which one profession is represented in larger numbers than the other professions), differences in the status and priority given to IPE by different professional groups, and unequal previous exposure to the particular learning style have been found to have a significant influence on student experience.²²⁻²⁴ It has been suggested that IPE learning groups should remain small, with no more than eight to ten students.²⁵ Stable group membership is also important.^{23,26} Our study was one of the first studies

of maternity care in Canada to explore models for IPE within the clinical setting through the ICP component. Many researchers have identified the need for IPE in workplace clinical settings.²⁷⁻³¹ IPE in these settings helps learners develop a deeper understanding of collaboration and practical skills in teamwork and communication and helps clinicians develop a greater awareness of the value of collaboration.^{27,28} Although the number of learners who were able to engage in the ICP component of our study was limited and although expectations and learning objectives were not clearly specified, the logistical challenges we identified in our study are barriers to IPE initiatives in other clinical settings as well.^{30,31} Traditionally, learning about collaboration in the clinical setting has been informal and has been based on available opportunities;³² as a result, students are dependent on the quality and opportunities of the learning environment in which they find themselves.^{30,31} A more formal and explicit integration of IPE into the clinical setting is necessary for learners to fully benefit. Participants in our study also voiced the need for more-explicit and formal learning objectives and expectations for the clinical component.

Although the main objective of the project was to promote collaboration among learners rather than focus on clinical content and knowledge, the lack of specific IPE and formal learning objectives may have contributed to the FMRs' lack of motivation to participate in providing care in the midwifery clinic. They may not have seen this clinical setting as relating closely enough to their profession-specific learning needs, such as a higher number of patients. In a similar interprofessional study of medical and physiotherapy students, collaboration was met with resistance when all students were expected to provide basic client care; both learner groups felt that this diminished their respective professional roles and took time away from profession-specific tasks.¹⁸ Closer attention to developing both IPE and profession-specific learning objectives and formal expectations for the clinical component would strengthen our project.

Our study highlighted the differences between the philosophical underpinnings of the two professions. As identified by other authors, the medical and midwifery

models of care have different approaches to the relationship between care providers and their clients, the use of interventions, and the goals of care.^{8,33} A project involving longer-term, meaningful clinical interaction between FMRs and MWSs or allowing more time for pairs to work together preparing their seminar series would be useful for continuing to explore the ways professional cultures act as barriers to collaboration.³⁴

CONCLUSION

This pilot project highlighted the barriers to and enablers of a new IPE intervention. Although the seminar format improved understanding and appreciation of other professions, IPE in the clinical setting posed more challenges. Close attention to logistical barriers, the balance of learner numbers, and the identification of both IPE and profession-specific competencies will be necessary in future projects. Implementation in another academic setting (one in which larger numbers of students are possible and the logistical issues of geography are fewer) would be useful.

One of the strengths of our project was the presence of positive professional relationship role models among the midwives and family physicians in the community. The findings from this pilot study indicate that this model could be a useful one for IPE in primary maternity care. It may be worth exploring alternative funding and practice models to facilitate collaboration in smaller communities and rural settings where obstetric care providers are few.

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