



Editor's key points

- ▶ Many educational programs are challenged to have residents who are competent, confident, and willing to provide full-scope maternity care following graduation. This study explored several successful family medicine maternity care programs to identify the qualities that contribute to their success in order to understand how best to nurture and sustain residents' interest in family medicine maternity care.
- ▶ Factors such as role modeling, adequate clinical exposure, supportive hospital environments, and interprofessional relationships are essential for successful family medicine maternity care training programs. Informal processes that include emphasizing relationships, prioritizing the learner's experience, and nurturing the provision of family medicine maternity care connect these factors that are related to successful programs and can affect residents' experience and acceptance of family medicine maternity care. Educators can apply these findings to their local context in order to strengthen their training programs.

What influences success in family medicine maternity care education programs?

Qualitative exploration

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Abstract

Objective To ascertain how program leaders in family medicine characterize success in family medicine maternity care education and determine which factors influence the success of training programs.

Design Qualitative research using semistructured telephone interviews.

Setting Purposive sample of 6 family medicine programs from 5 Canadian provinces.

Participants Eighteen departmental leaders and program directors.

Methods Semistructured telephone interviews were conducted with program leaders in family medicine maternity care. Departmental leaders identified maternity care programs deemed to be "successful." Interviews were audiorecorded and transcribed verbatim. Team members conducted thematic analysis.

Main findings Participants considered their education programs to be successful in family medicine maternity care if residents achieved competency in intrapartum care, if graduates planned to include intrapartum care in their practices, and if their education programs were able to recruit and retain family medicine maternity care faculty. Five key factors were deemed to be critical to a program's success in family medicine maternity care: adequate clinical exposure, the presence of strong family medicine role models, a family medicine-friendly hospital environment, support for the education program from multiple sources, and a dedicated and supportive community of family medicine maternity care providers.

Conclusion Training programs wishing to achieve greater success in family medicine maternity care education should employ a multifaceted strategy that considers all 5 of the interdependent factors uncovered in our research. By paying particular attention to the informal processes that connect these factors, program leaders can preserve the possibility that family medicine residents will graduate with the competence and confidence to practise full-scope maternity care.



Les facteurs responsables du succès ou de l'échec des programmes de formation sur les soins de maternité en médecine familiale

Une revue qualitative

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Résumé

Objectif Établir de quelle façon les responsables de programmes de médecine familiale évaluent le succès de la formation en soins de maternité et déterminer quels facteurs influencent cette variable.

Type d'étude Une étude qualitative à l'aide d'entrevues téléphoniques semi-structurées.

Contexte Un échantillon représentatif de 6 programmes de médecine familiale de 5 provinces canadiennes.

Participants Dix-huit chefs de département et directeurs de programme.

Méthodes On a effectué des entrevues téléphoniques portant sur les soins de maternité avec les responsables de programmes de formation en médecine familiale. Les chefs de département considéraient que les programmes étaient probablement efficaces. Les entrevues ont été enregistrées pour ensuite être transcrites mot à mot. Les membres de l'équipe ont effectué l'analyse thématique.

Principales observations Les participants estimaient que leurs programmes de formation en médecine familiale portant sur les soins de maternité étaient efficaces si les résidents devenaient compétents dans ce domaine, s'ils les diplômés prévoient d'inclure des soins périnataux dans leur pratique, et si leurs programmes de formation étaient en mesure de recruter et de retenir des professeurs de soins de maternité en médecine familiale. On estimait qu'il y avait 5 facteurs clés susceptibles d'assurer le succès de tels programmes: une exposition clinique adéquate, la présence de très bons modèles de rôle en médecine familiale, un environnement hospitalier favorable à la médecine familiale, un appui au programme de formation provenant de multiples sources, et une équipe de médecine familiale engagée et dévouée, responsable des soins de maternité.

Conclusion Les programmes de résidence en médecine familiale désireux d'obtenir plus de succès dans la formation en soins de maternité devraient utiliser un ensemble de mesures qui tiennent compte des 5 facteurs interdépendants identifiés dans cette étude. En apportant une attention particulière aux processus informels qui relient ces facteurs, les responsables des programmes peuvent espérer que les diplômés en médecine familiale seront suffisamment confiants et compétents pour dispenser des soins de maternité complets.

Points de repère du rédacteur

► Un défi auquel font face plusieurs programmes de résidence est de faire en sorte que les diplômés soient compétents, confiants et désireux de prodiguer des soins de maternité complets. Cette étude a examiné plusieurs programmes de formation en soins de maternité afin de déterminer les qualités qui contribuent au succès d'un tel programme, mais aussi pour comprendre de quelle façon on pourrait augmenter et maintenir l'intérêt des résidents en médecine familiale pour les soins de maternité.

► Certains facteurs, comme l'utilisation de modèles de rôle, une exposition clinique adéquate, un environnement hospitalier favorable et de bonnes relations interprofessionnelles, sont essentiels au succès d'un programme de formation en soins de maternité. Des mesures informelles, comme le fait d'insister sur la relation interprofessionnelle, de donner priorité aux expériences de l'étudiant et d'encourager la prestation éventuelle de soins de maternité par le médecin de famille, constituent un ensemble susceptible d'avoir un effet sur l'expérience vécue par les résidents et sur leur acceptation de ce type de formation en médecine familiale. Les éducateurs peuvent appliquer ces résultats à leur propre contexte afin d'améliorer leurs programmes de formation.

Competency in full-scope maternity care (low-risk prenatal, intrapartum, and postpartum care) is expected of every family medicine graduate.^{1,2} However, despite a strong mandate from the College of Family Physicians of Canada to achieve this goal, it is a challenge for many educational programs to graduate residents who are competent, confident, and willing to provide full-scope maternity care following graduation. While failure to provide effective training might affect the accreditation status of university programs, the larger concern is the erosion of this important component of family medicine across Canada and the resultant effect on communities.

Educators who want to improve the quality of their family medicine maternity care training programs will find multiple descriptions in the literature about barriers to success.³⁻⁶ The issues are multifactorial and include obstacles that are both within and outside the control of educational programs. However, while barriers are well described, there is little guidance for residency programs and maternity care educators on what factors influence success in family medicine maternity care programs and how to achieve the qualities that relate to successful programs.

Educators and administrators need to consider the context in which family medicine maternity care programs are likely to thrive and they need to understand what factors contribute to the success of these programs in order to implement intentional and sustainable change on a local level. Given a paucity of relevant data, we think that there is a need to take a comprehensive look at the structures and functions that foster success in family medicine maternity care. In our study we build on earlier work in this area.⁷ Our objective for this qualitative study is to explore how Canadian family medicine education leaders characterize success in family medicine maternity care education and to determine what factors influence success for these training programs.

— Methods —

Using a purposive sampling strategy,⁸ 6 family medicine residency education programs from across Canada with reputations for having strong maternity care education programs were invited and agreed to participate. The chair of each family medicine program identified 1 of the program's senior education leads who suggested local maternity care education leads from 4 training sites, which either had thriving maternity care education programs or had struggled to overcome challenges. We chose 2 sites from each program, and the study included 6 senior and 12 local education leads from residency sites within urban, suburban, and rural areas. Education sites affiliated with the study team were excluded. Participant identities were anonymous and site locations confidential.

During 18 in-depth interviews (17 interviews via telephone and 1 face-to-face interview) participants were asked to describe their program organization, its educational components, and administrative oversight, as well as how they characterized success and what they thought contributed to the success of their maternity care education program. Ethics approval was received from the Mount Sinai Hospital Research Ethics Board in Toronto, Ont.

Data collection and analysis

The qualitative researcher (A.T.) conducted semistructured interviews⁹ between September 2011 and April 2012. Digital recordings were transcribed verbatim by a professional transcriptionist, and one-third of transcripts were reviewed against the recording for accuracy.¹⁰

We conducted an iterative and interpretive thematic analysis.^{11,12} Researchers (A.B., M.F., A.T.) independently read transcripts and met to discuss impressions, leading to an initial set of themes. Using memos to track emergent ideas and conceptual development, themes were iteratively revised and refined, and a final coding scheme was agreed upon. At several intervals, the full team met to ensure that all members were familiar with the data and participated in the analytic process and emerging narrative. Five transcripts were coded by the researchers to verify that the coding scheme was being applied in a conceptually consistent manner. The entire data set was then coded by the qualitative researcher and NVivo 10 was used to collate coded data. Collated data were reviewed by the researchers, and descriptive analytic summaries and thematic maps were generated.

The analysis and write-up involved detailed team discussions, serving to reveal underlying assumptions and to balance perspectives among maternity care provider members and the qualitative researcher (A.T.). This paper represents an overview of the findings from this process: how participants characterize success in family medicine maternity care training programs and, more important, what factors they think contribute to that success.

— Results —

Participants considered their education programs to be successful in family medicine maternity care if residents achieved competency in intrapartum care, if graduates planned to include intrapartum care in their practices, and if their education programs were able to recruit and retain family medicine maternity care faculty. While we explored the factors that influence success, the following 5 themes emerged (**Box 1**).

Adequate clinical exposure: quality and volume. Participants expressed that residents must have enough experience to develop the skills required.

Box 1. Themes and subthemes that emerged when exploring factors that influenced the success of education programs in family medicine maternity care

During the in-depth exploration of influential factors for success, the following 5 themes and subthemes emerged:

1. Adequate clinical exposure: quality and volume
2. Presence of strong family medicine role models
 - Competent preceptors are visible
 - Passion for and enjoyment of family medicine maternity care is modeled
 - Sustainable practice and work-life balance is demonstrated
3. Family medicine-friendly hospital environment
 - Presence of family medicine is evident (ie, there are many FPs; adequate number of deliveries performed by FPs)
 - Vibrant low-risk program exists
 - Acceptance (both clinical and educational) by the multiprofessional team is exhibited
 - Hospital infrastructure supports family medicine maternity care
4. Support for the education program from multiple sources
 - Financial support
 - Support from program leaders and champions
 - Support from family medicine colleagues
5. Dedicated and supportive community of family medicine maternity care providers

This is dependent upon both the quantity and the quality of residents' obstetric learning experiences. There was consensus that volume is important in the attainment of competence and confidence but no consensus was reached on the minimum number of births or months of training required. Participants estimated that residents need at least 40 to 50 and up to 100 deliveries to feel competent, depending, in part, on the practice setting. They emphasized that competence in family medicine maternity care includes the continuity experience of antenatal, intrapartum, and postpartum care.

Participants noted that the quality of the learning experience is at least as important as the number of births experienced. Factors contributing to quality include the extent of the resident's involvement, the types of births and complications experienced, and the effectiveness of preceptor teaching, with emphasis on the important role of FPs as teachers. All programs are at different stages in the move toward a competency-based curriculum, and participants expressed concern about their ability to measure competency.

Presence of strong family medicine role models. Participants noted that the presence of credible family medicine role models who are expert in full-scope maternity care enables residents to see themselves providing this aspect of comprehensive care. The presence of competent family medicine preceptors

indicates to learners that low-risk obstetric care is within the scope of family medicine and that this competence is achievable.

The more exposure there is to family doctors doing obstetrics, the fact that they do a good job, and they know what they're talking about, then the more likely they [the residents] are to accept or at least consider that this [is] something that would be valuable. (Participant [P] 18, site [S] 6)

It is important for residents to be learning in an environment where preceptors model a passion for their work. "If you have a system where you do it because you love to do it, they pick up on that" (P2, S1).

In addition, participants described the importance of preceptors being explicit with the residents about how family medicine maternity care contributes to their professional satisfaction—ie, developing satisfying relationships with patients, having a young practice, providing care to the whole family, having exposure to clinical variety, using technical skills, and receiving financial rewards.

Today's learners are less willing to provide coverage 24 hours a day, 7 days a week, given the effect on lifestyle. Participants expressed a need to provide residents with a menu of ways to integrate maternity care into family medicine in a balanced and sustainable manner including call groups and shifts in labour and delivery.

One of the strengths of our program is that our residents are exposed to a really huge variety of ways that you can manage practising obstetrics as part of being a family doctor, including hard call, soft call, community-based practice, academic practice, hospital-based practice They just have a really wide variety of different role models. It isn't just one way of doing things. (P12, S4)

Family medicine-friendly hospital environment. A family medicine-friendly hospital culture is a critical element in the success of programs. Participants noted that the considerable presence of family medicine in a hospital (eg, many FPs, adequate number of births by FPs) fosters acceptance by the labour-and-delivery team, which extends to the family medicine residents. Family medicine programs work hard to maintain their volumes of obstetric care through referral from colleagues and by challenging limitations on numbers of births.

Relationships with obstetricians and nurses are key to the success of the program. Residents need the opportunity to see their preceptors professionally engaged in a collaborative environment where their knowledge, skills, and contributions are valued. "The team, the whole team, needs to be supportive of the program and respectful of the relationships and understand the purpose of why the resident is there" (P4, S1).

Hospital support was described as essential, yet its nature varied widely across programs. It might be expressed in various ways; such as a supportive senior administrator or a self-credentialing division of family medicine maternity care.

Support for the education program from multiple sources. As leaders in family medicine maternity care education, our participants were concerned about what goes on behind the scenes. They focused on factors that facilitate the daily experience of their teachers and learners.

Financial support for the maternity care program (eg, teaching stipends and subsidized professional development) was reported to be critical on a number of levels. This influences the satisfaction of maternity care providers and affects how the program is seen internally and externally.

Money is the lever that the chairs and the chiefs have to make things happen ... by making sure that there [is] adequate financial allocation that sends a signal about the priority of the program to everybody. And it also makes infrastructure support possible to run the program effectively. (P12, S4)

Administrative, strategic, financial, and clinical support at all levels of leadership is essential according to participants. Support from program directors is critical for success; it is also helpful if they practise full-scope maternity care but not essential, as long as they validate faculty providing this teaching.

Participants expressed the importance of having a designated maternity care education lead to champion the program within family medicine and the hospital. Maternity care education leads assist with curriculum implementation and act as a liaison with relevant hospital departments such as obstetrics, nursing, and midwifery.

Collegial support from call group members and from other family medicine colleagues (who might need to cover resident supervision or more nonobstetric calls) was described as essential. Support also includes the notion of legitimacy and respect for family medicine maternity care. This is exemplified when FPs refer their pregnant patients to FP colleagues rather than obstetricians.

Dedicated and supportive community of family medicine maternity care providers. Although not traditionally seen to be within the purview of residency programs, many participants discussed the support that family medicine maternity care providers could offer their new colleagues, upon transition into practice, as they develop mastery in the area of maternity care.

Although participants from 2 provinces mentioned official mentorship programs that pay FPs to attend the first deliveries of a new graduate, informal mentorship

that includes clinical backup and broader professional support was more common. Participants expressed their commitment to creating a “soft landing” for the next generation. “And lots of people do this: ‘Here’s my pager number. Here’s how you reach me. I will help you. I will support you.’” (P17, S6)

They described the importance of being there for each other at all stages of their careers, with a particular emphasis on young colleagues. They expressed concern about recruitment and the need for models of care that young physicians would find acceptable, such as a “hard call” model (set shifts on call for labour and delivery). Some FPs even switched their models of call to address this concern.

I was one of those people who really liked to deliver his own babies, but the reality is my life is quite a bit better when I do it this way. And the reason that motivated me was because the residents said they wouldn’t do what I was doing. (P4, S1)

— Discussion —

This qualitative study of successful Canadian family medicine maternity care programs identifies a complex set of interconnected factors that contribute to their success. Participants broadly defined *success* as residents achieving competency in intrapartum care, graduates planning to include intrapartum care in their practices, and the ability of programs to recruit and retain family medicine maternity care faculty. Our study identified the following 5 key factors as being critical to achieving these qualities for success: adequate clinical exposure, the presence of family medicine role models, a family medicine–friendly hospital environment, support for the educational program from multiple sources, and a dedicated and supportive community of family medicine maternity care providers (**Box 1**).

Our findings align with the results of previous studies indicating that faculty role modeling, volume, a positive obstetric experience, supportive hospital environments, and interprofessional relationships are essential for successful family medicine maternity care training programs.^{3,4,6,7,13} The consistency of these findings highlights these as important issues. Our study also found that educational support and a supportive community of family medicine maternity care providers were additional factors related to success in programs. We explored the 5 factors we identified (**Box 1**) in more depth. We also identified informal processes that connect these factors. Informal processes such as emphasizing relationships, prioritizing the learner’s experience, and accepting and nurturing the provision of family medicine maternity care have the power to affect residents’ experience and acceptance of family medicine maternity care. Thus, it is

Table 1. Strategies to support training in family medicine maternity care

| STRATEGY | EXPLANATION |
|---|--|
| Ensure sufficient clinical exposure | Educational leads ensure that residents' clinical rotations in obstetrics and family medicine allow for adequate clinical exposure to develop competence and confidence in family medicine maternity care |
| Make recruiting skilled teachers a priority | Department chief or chair prioritizes the recruitment of skilled family medicine maternity care providers who will serve as teachers and positive role models. Community physicians who contribute to family medicine maternity care teaching are recognized for their efforts and commitment |
| Direct funds to educational infrastructure | Family medicine leaders direct funds to infrastructure that support the educational program, including ... <ul style="list-style-type: none"> • administrative support • protected time for teaching • faculty development opportunities, program evaluation, and improvement initiatives |
| Build positive relationships across disciplines | Clinical and educational leaders across disciplines deliberately build and maintain positive relationships |
| Address impediments at the hospital level | Leaders address any negative interactions or impediments in labour and delivery or at the hospital level |
| Be committed to supporting new graduates | Family medicine maternity care community commits intentionally to supporting new graduates who wish to participate in family medicine maternity care. Examples of these support strategies might include the following: <ul style="list-style-type: none"> • adjusting existing on-call arrangements • mentoring new graduates • facilitating hospital privileges |

imperative that educators not only identify these factors, but also understand how the interplay between them is connected to successful outcomes. Educators can then reflect upon the applicability of these findings to their local context in order to strengthen their training programs.

Exposing family medicine residents to simply an adequate volume of obstetric care might lead to clinical competence; however, it is not enough to develop confidence as a family medicine maternity care provider. Although previous studies have demonstrated the effect of family medicine role models on residents' attitudes and career decisions regarding maternity care,^{4,7,13} our study explores role modeling beyond the provision of competent maternity care by FPs. Role models who are passionate about what they do, who demonstrate a reasonable work-life balance, and who practise in a structure that sustains their capacity to provide family medicine maternity care can inspire residents. Role models must overtly communicate the benefits of family medicine maternity care to learners and understand that both their presence and the implicit messaging associated with the way that they practise maternity care can lead to success among the next generation.

However, it would be challenging for family medicine role models to exist without broad support from the educational community. A positive educational environment is fostered by leaders and champions who promote the training of family medicine maternity care residents and ensure adequate infrastructure and funding for the teachers and programs. Leaders include family medicine

department chiefs who understand the changing professional landscape and will overtly recruit and encourage the development of enthusiastic maternity care teachers; and program directors who will not accept a hostile hospital environment for their learners and will advocate for adequate birth numbers to support education and improved interprofessional relationships on the labour floor. Support also involves colleagues who do not provide maternity care referring patients to family medicine maternity care providers and covering their clinical and educational duties when needed.

While many of the factors influencing success are readily apparent, our study has uncovered the critical importance of how less tangible, informal processes can affect residents' experience and future plans. When family medicine residents see capable and enthusiastic teachers who are well integrated into maternity care services, visible support from leaders and champions, as well as respect for family medicine maternity care from FPs who do not provide maternity care, this reinforces the messaging that this area of practice is important, valued, and possible. For residents, the personal effect of these experiences can be related to their professional identity formation,¹⁴ a process that might be best achieved through teaching by FPs and centring learning experiences within family medicine.¹⁵ Professional identity formation in medical education has received much recent attention and will be explored further in a subsequent analysis.

However, no matter how positive the learning environment, the newly graduated family medicine

maternity care provider needs clinical support to develop and consolidate his or her skills.^{4,16} Our participants identified the importance of a supportive community of practice (COP). Defined by Lave and Wenger¹⁷ as a group of people who share a craft or a profession, a COP is crucial for the long-term survival of family medicine maternity care. It ensures that family medicine maternity care providers are able to sustain their practice of maternity care through formal processes such as call groups and work structures that allow a reasonable lifestyle and by offering collegial support in the face of professional challenges or bad clinical outcomes. The COP models the satisfaction of comprehensive care to learners and welcomes new members as “influential voices.”¹⁷

Strengths and limitations

This study should enable program leaders to reflect upon the applicability of our findings to their own local context. Many of the formal and informal elements that make up a successful system can be deliberately constructed, supported, and sustained (Table 1). It is by understanding the complexity and interrelated nature of these factors and by their implementation that family medicine education leaders can strengthen their family medicine maternity care training programs and aim for the success as described by our participants.

A limitation of this study is that we studied only 6 of the 16 Canadian family medicine residency programs and were directed to our interview subjects by the department chairs. To mitigate this limitation, we ensured that we included programs from 6 provinces with broad geographic representation.

Conclusion

Training programs that want to achieve greater success in family medicine maternity care should employ a multifaceted strategy that considers all 5 of the interdependent factors contributing to the success of family medicine maternity care programs. As cohorts of residents arrive with different expectations around work-life balance and as the landscape of family medicine maternity care education changes, it is particularly important to attend to the informal processes that influence residents and novice practitioners. If program leaders understand the unique features of their family medicine maternity care teaching environment and are open to implementing these strategies, they can preserve the possibility that family medicine residents will graduate with the competence and confidence to practise full-scope maternity care.



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Contributors

All authors participated to the concept and design of the study. **Dr Biringer, Dr Forte,** and **Ms Tobin** contributed to the data collection, data analysis, and interpretation. **Dr Biringer** drafted the initial paper. All authors contributed to critical revisions of the manuscript and final approval of the version to be published.

Competing interests

None declared

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