Nova Scotia Midwives' Perceived Barriers and Facilitators to Baby-Friendly Initiative Implementation

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ABSTRACT

Background: Breastfeeding has numerous benefits for both breastfeeding parents and children, yet breastfeeding rates in Nova Scotia are among the lowest in Canada. The Baby-Friendly Initiative (BFI) is a breastfeeding promotion program designed to support breastfeeding initiation, exclusivity, and duration. While the BFI can improve breastfeeding outcomes, it is not implemented across Nova Scotia.

Methods: We used a qualitative descriptive design, employing semi-structured virtual interviews to understand midwives' perceptions of barriers and facilitators to BFI implementation in Nova Scotia. Interview data were transcribed and analyzed using inductive-deductive qualitative content analysis guided by the *Theoretical Domains Framework (TDF)* and *COM-B Model of Behaviour*.

Results: Study participants (n = 2) identified barriers and facilitators related to (1) client education needed to support breastfeeding; (2) family, peer, and community supports needed for breastfeeding; and (3) equity in access to breastfeeding supports. Client education early in the perinatal period was seen as a key facilitator of BFI. Community supports were identified as essential enablers of breastfeeding and the BFI. Participants identified inequities in access to breastfeeding support that could be addressed by widespread implementation of the midwifery care model.

Discussion: Our findings highlight the importance of midwifery care for supporting exclusive breastfeeding and BFI implementation. Continuity of care, consistent access to knowledge and support, and family-centered social-emotional support throughout the perinatal period are key components of the midwifery care approach that should be adopted across the health system. Findings will inform future research to support BFI implementation and breastfeeding across Nova Scotia.

RÉSUMÉ

Contexte: L'allaitement maternel procure de nombreux bienfaits tant pour le parent que pour l'enfant. Pourtant, les taux d'allaitement en Nouvelle-Écosse comptent parmi les plus faibles au Canada. L'Initiative des amis des bébés (IAB) est un programme de promotion de l'allaitement qui est conçu pour soutenir

l'amorce, l'exclusivité et la durée de cette méthode d'alimentation. Alors que l'IAB est susceptible d'améliorer les résultats liés à l'allaitement, elle n'est pas mise en œuvre dans l'ensemble de la Nouvelle-Écosse.

Méthodes: Nous avons utilisé un plan descriptif qualitatif faisant appel à des entrevues virtuelles semi-structurées afin de comprendre les perceptions des sages-femmes au sujet des facteurs qui facilitent la mise en œuvre de l'IAB en Nouvelle-Écosse et ceux qui y font obstacle. Les données des entrevues ont été transcrites, puis ont fait l'objet d'une analyse inductive-déductive du contenu qualitatif guidée par le *Cadre des domaines théoriques* et le *modèle de comportement COM-B*.

Résultats: Les participantes à l'étude (n = 2) ont fait ressortir les facteurs facilitants et les obstacles liés aux enjeux suivants : 1) l'éducation de la clientèle nécessaire au soutien de l'allaitement; 2) le soutien de la famille, des pairs et de la communauté nécessaire à l'allaitement; 3) l'équité d'accès aux soutiens en matière d'allaitement. L'éducation de la clientèle au début de la période périnatale a été perçue comme un facteur clé qui facilite l'IAB. Les soutiens communautaires ont été identifiés comme des facteurs facilitants de l'allaitement et de l'IAB. Les participantes ont mentionné des inégalités d'accès aux soutiens à l'allaitement qu'on pourrait résoudre par la mise en œuvre généralisée du modèle de soins sage-femme.

Discussion: Nos constatations font ressortir l'importance des soins sage-femme pour l'appui à l'allaitement exclusif et à la mise en œuvre de l'IAB. La continuité des soins, un accès uniforme aux connaissances et aux soins et un appui socio-émotionnel axé sur la famille tout au long de la période périnatale constituent des éléments clés de l'approche des soins sage-femme qui devrait être adoptée à la grandeur du système de santé. Les constatations serviront à orienter les futures recherches à l'appui de l'allaitement et de la mise en œuvre de l'IAB dans l'ensemble de la Nouvelle-Écosse.

KEYWORDS

breastfeeding, midwifery, qualitative, Nova Scotia, implementation science, Baby-Friendly Initiative

INTRODUCTION

Breastfeeding has numerous benefits for both breastfeeding parents and children, including preventing obesity, supporting positive attachment, protecting from infection and chronic disease, and promoting household and community food security.[1–5] International guidelines recommend parents breastfeed exclusively for the first six months and continue breastfeeding for two years of age and beyond.[4,5] Unfortunately, breastfeeding rates in Nova Scotia are among the lowest in Canada.[6] The Baby-Friendly Initiative (BFI) is an internationally recognized breastfeeding promotion program to support breastfeeding initiation, exclusivity, and duration across population levels and cultural contexts.[5,7–9] An organization can be designated "Baby-Friendly" by implementing the Ten Steps to Successful Breastfeeding (Ten Steps) and demonstrating compliance with the International Code of Marketing of Breastmilk Substitutes.[10] The Ten Steps, which must be followed to achieve and maintain BFI status, support breastfeeding by promoting knowledge and support and prioritizing parent-child contact.[7,10] Evidence shows that when successfully implemented, the Ten Steps are associated with improved breastfeeding experiences and outcomes (initiation, duration, and exclusivity).[7–10] However, while the BFI has been demonstrated to improve breastfeeding outcomes, it is not implemented in all hospitals and community health organizations providing perinatal and neonatal care across Nova Scotia. BFI implementation is a complex, evidence-based process. Past research has found that BFI implementation is difficult due to a lack of government and health system support, commitment, and accountability; poor health service integration and communication; cultural norms related to infant feeding; inadequate health care provider education; socioeconomic disparity; and the negative impact of the infant formula industry.[11–26] Midwives are integral to breastfeeding care and BFI implementation. However, despite their valuable contributions to breastfeeding care

during pregnancy, birth, and postpartum, no studies found in this literature review specifically examined midwifery perspectives of barriers and facilitators to BFI implementation.

It is important to note that this study was conducted during the COVID-19 pandemic, which may have impacted participants' experiences. Participants in our study refer to healthcare resources and staff being directed away from breastfeeding promotion activities, such as the BFI, to implement public health measures related to the pandemic. This study provided a unique opportunity to examine the midwifery perspective on BFI implementation in this context.

PURPOSE OF THE STUDY

This study aimed to understand Nova Scotian midwives' perceptions of barriers and facilitators to BFI implementation to inform strategies to support integrated and sustained adoption of the BFI across the province. Using the Theoretical Domains Framework (TDF) and the COM-B Model of Behaviour[14–18] will allow the barriers and facilitators identified in this study to create tailored implementation interventions to support BFI in Nova Scotia. These frameworks have been shown to support the development of effective strategies to change healthcare behaviours in past implementation science research.[14–18] The research presented in this manuscript is one component of a larger multi-phase study using implementation science methods to support integrated and sustained implementation of the BFI across hospital/community and rural/urban settings in Nova Scotia.[27]

METHODOLOGY

This study used a sequential qualitative descriptive design[11–13] employing one-on-one semi-structured virtual interviews. A systematic, theory-informed approach was applied during study design, data collection, and analysis using the *TDF* and *COM-B Model of Behaviour.*[14–18] Information on these frameworks is included in Appendix A. Employing these implementation frameworks in our study helped us to comprehensively identify and understand the behavioural determinants influencing breastfeeding and BFI implementation from a midwifery perspective.[14–18] Recruitment material was circulated through the Association of Nova Scotian Midwives on multiple occasions to recruit midwife participants from across Nova Scotia. One-on-one semi-structured virtual interviews were utilized to understand midwives' perceptions of barriers and facilitators to BFI implementation in Nova Scotia. Participation was voluntary, and participants had to provide written and verbal informed consent before beginning their interview.

Interviews were manually transcribed verbatim, and inductive-deductive qualitative content analysis was used to identify common themes of barriers and facilitators related to BFI implementation. Participant responses from interviews were deductively categorized into the 14 domains of the *TDF*. For example, if a participant discussed the geographical barriers to breastfeeding support in rural areas, it would be included in the environmental context and resources category.[14,16] Second, inductive qualitative content analysis was utilized to capture categories and subcategories of salient barriers and facilitators related to implementing the BFI within each TDF category. Strategies such as recording field notes during interviews, member checking, researcher triangulation, detailed transcription, and peer debriefing helped promote data collection and analysis trustworthiness.[19] Two researcher team members (MM, BB) reviewed transcripts and collaborated on identifying codes and themes in the data. Consensus was reached on all codes, categories, and themes generated during analysis to increase the credibility and confirmability of the data.[19]

Following data analysis, findings from this sub-study were provided to researchers currently conducting the larger province-wide study aiming to support integrated and sustained integration of the BFI in health organizations providing perinatal and infant care. The results from this sub-study will be integrated with the perspectives of other healthcare providers and families to create contextually relevant implementation strategies that can be evaluated provincially.

RESULTS

Of the 18 registered midwives approached, two agreed to participate and completed one-on-one semi-structured virtual interviews. Both participants were female Caucasian midwives practicing full-time. One was working in an urban area, and one

was working in a rural area. Both participants had a university education and had been providing breastfeeding care for 10-years or more.

The data identified three themes: (1) *Client Education Needed to Support Breastfeeding,* (2) *Family, Peer, and Community Supports Needed for Breastfeeding,* and (3) *Equity in Access to Breastfeeding Supports*.

Client Education Needed to Support Breastfeeding

Participants acknowledged education's role in a breastfeeding parent's ability to meet exclusive breastfeeding goals. Early consistent education in the perinatal period was described as needed to address perceived gaps in knowledge, such as awareness of breastfeeding benefits and expectations. Participants explained that gaps in education lead to physical, emotional, and psychological distress that can reduce an individual's ability to meet breastfeeding recommendations. For example, inadequate education around breastfeeding expectations can make actual breastfeeding isolating and highly overwhelming to new parents. To highlight this, Participant 01 explained, "[some parents think it will] be really easy, and baby is going to latch right on, and that's it. And if they have to work any harder after that, that it can't be normal."

Participants recommended anticipatory support from healthcare providers or peers to provide a realistic understanding of what breastfeeding will entail. In addition, participants acknowledged that to improve breastfeeding education, the messages between care providers needed to remain consistent. To do this, Participant 02 suggested:

> [routine] education for everybody who is in who is working with new parents and babies because evidence is changing [all the time] as we all know and there may be new information, new evidence. [We must] make this available to […] everybody and then see what else can be improved.

Participants explained that new research frequently changes recommendations from health care providers. Thus, it is important that healthcare providers who work with new parents and babies routinely participate in breastfeeding education initiatives to stay current with evidence and recommendations. By staying current with breastfeeding knowledge, healthcare providers will be better able to provide consistent recommendations between providers.

Participants also emphasized the opportunity the midwifery care model provides for this type of early, consistent, personalized, family-centred breastfeeding education.

Family, Peer, and Community Supports Needed for Breastfeeding

Participants resoundingly supported family, peers, and communities' important influence on a breastfeeding parent's infant feeding decisions and ability to meet exclusive breastfeeding recommendations. For example, participants noted that when parents do not see breastfeeding modelled or supported by people in their family or community, they often are less inclined to begin and continue breastfeeding. Participant 01 provided the example:

> [when] grandma is in the corner like tapping her fingers being like why aren't you [bottle feeding] baby. I have a bottle right here; let's just give it to them.

Participants also emphasized that when communities and families do not support public breastfeeding, it creates an isolating environment for many breastfeeding parents which is not conducive to continuing breastfeeding. Participants agreed that midwives are uniquely positioned to understand the influence of family dynamics on breastfeeding as they provide care in the home for six weeks after birth.

Social and mental support was repeatedly described as necessary to enable breastfeeding parents to meet their breastfeeding goals. Participants highlighted the importance of protecting the breastfeeding parent's mental health and overall well-being. They described the value of peer support groups to help make parents' overwhelming breastfeeding experiences feel more manageable. Participants explained

that while healthcare providers are valuable for providing breastfeeding support, peers can provide unique emotional support as they may have shared experiences. Participants also noted that the midwifery care model incorporates comprehensive biopsychosocial support that may help address breastfeeding parents' varied needs for social and mental support. For example, Participant 01 mentioned:

> we're on call 24/7 for our clients and we always say if there's any concerns or questions with breastfeeding for them to give us a call and we can either trouble shoot over the phone or make a plan to follow up the next day.

This type of consistent support when a client is struggling can be beneficial for their mental health and prevent feelings of isolation. This type of support is integral to BFI implementation as it supports steps 5, 6, and 10. Steps 5 and 6 revolve around supporting breastfeeding parents to initiate and maintain lactation and exclusive breastfeeding.[10] Step 10 focuses on continuity of care in the community which this type of 24/7 support availability facilitates.[10]

Equity in Access to Breastfeeding Supports

Participants described the need for equitable access to quality professional breastfeeding support. Participants agreed that current breastfeeding and BFI resources are not distributed equitably across Nova Scotia. Equitable access to professional support (such as lactation consultants) and education was essential to supporting and sustaining exclusive breastfeeding. Participants agreed that professional breastfeeding support should be provincially funded so it is accessible to all breastfeeding Nova Scotians. Participant 02 highlighted this:

> [lactation consultant appointments should be] free of charge because what we see is yes there are lactation consultants but they are all in private practice and there are just communities that cannot afford this. It's not cheap so this would be one thing.

Participants also felt strongly that physical distance from breastfeeding support services was a barrier to meeting exclusive breastfeeding recommendations and that it disproportionately impacted those living in rural communities in Nova Scotia. Providing travel support for breastfeeding parents, as is done with midwifery home visits, was identified as one way to address this inequity in access to services. Participants recommended integrating home visits in other care delivery areas, such as lactation consultant care, to improve access to professional breastfeeding support.

The COVID-19 pandemic was considered to have exacerbated the inequitable access to breastfeeding support and momentum in BFI implementation in the province. For example, healthcare provider burnout and staffing shortages were described as making it difficult to prioritize BFI implementation. Moreover, staff shortages in rural settings created specific challenges where bed and staffing shortages on other care units resulted in medical patients being placed in perinatal units. This caused gaps in appropriate care as described by Participant 01:

> on the children's and women's floor at [rural regional hospital] they tend to have a lot of medical patients and the medical patients take, require a lot more one-on-one care and I think the priorities sometimes go to providing care and I don't know I've never I'm not a nurse so I don't know what medical patients require but ya know a person who's just had a baby and not being seen for 12 hours when they've had a few feeds in there and they don't really know what they're doing and they feel like no one's around to help them so maybe if that was diminished so that a specifically like they were taking care of more mums and babies.

This type of staff distribution was described as inconducive to adequate breastfeeding care while in hospital during the early postpartum period.

DISCUSSION

From participant interview responses, we identified three key themes of barriers and facilitators, highlighting two key points that were recurrent

in our data. The literature has supported both of these: (1) *Midwifery Care Philosophies Impact on BFI Implementation and Breastfeeding* and (2) *Social Role of Knowledge and Access to Support*.

Midwifery Care Philosophies Impact on BFI Implementation and Breastfeeding

Past research has found that patients of medicalized perinatal care models describe their breastfeeding support as unfavourable.[20] Specifically, Bäckström et al.[20] stated that patients felt their breastfeeding care emphasized the following points: time pressures, guidance not readily available, unhelpful practices promoted (such as health care providers having forced the infant to breastfeed or careless handling of the parent's breast and infant's head), and care providers giving conflicting advice. Study participants also highlighted these challenges as barriers to BFI implementation and breastfeeding in Nova Scotia. For example, Participant 01 highlighted the lack of one-on-one support for people in the hospital trying to breastfeed. Supporting parents in initiating and maintaining lactation and managing common breastfeeding difficulties is one of the Ten Steps[10] and is essential to achieving BFI implementation and designation. Participants in this study repeatedly suggested that widespread implementation of the midwifery care model could address the inadequacies in breastfeeding and BFI support identified in a fragmented, medicalized model of perinatal care. For example, participants highlighted that midwifery care offers 24/7 support for clients with breastfeeding concerns or questions following hospital discharge. Such care facilitates a seamless transition between breastfeeding care in hospital and community settings, which is another core component of the BFI Ten Steps.[10]

Increasing the number of midwives across the province was identified by participants as a key strategy to support BFI implementation and subsequent quality of breastfeeding support. Interdisciplinary collaboration using the midwifery model of care could additionally be useful in supporting BFI implementation province-wide. Martin-Arribas et al. (2022) suggests that the midwifery care model is ideal for all low-risk perinatal patients, which participants supported. Fundamental differences of the midwifery care model that support breastfeeding and BFI implementation include its focus on providing continuity of care, non-authoritarian care, evidence-based care, nurturing hands-on care, psychosocial monitoring and support, and "with women" care that promotes sharing and valuing knowledge.[21–23] The midwifery care model provides specific support that facilitates exclusive sustained breastfeeding. This is evident in reported Nova Scotia breast-feeding outcomes as parents who receive midwifery care have higher rates of breastfeeding than those who receive care from another care provider.[21] Participants in this study agreed that the midwifery care model is the ideal model for breastfeeding support in perinatal care.

For high-risk perinatal patients who need specialized obstetric care, the midwifery care model and values should be employed by their care providers, or their obstetrician should collaborate with a midwife to ensure they have access to the benefits of the midwifery care model.[29] Increasing collaboration between midwives and other care providers is ideal for transforming perinatal care in Nova Scotia.[28] By changing healthcare beliefs, values, and practices, collaborative care delivered between midwives and other care providers could improve breastfeeding outcomes for parents and babies.[28] Other care providers implementing unique aspects of the midwifery care model could address several of the *Ten Steps* included in the BFI. For example, Step 10 focuses on continuity of care in the community, which as participants noted, is already a part of the midwifery model of care.[30] Midwives provide continuity of care through pregnancy, birth, and postpartum through home visits and connecting clients with other health and community services as needed.[30]

Social Role of Knowledge and Access to Support

As described by Smith,[24] breastfeeding is a social justice issue. The decision to breastfeed is not an individual choice rather, it is shaped by systems of privilege and oppression that make it possible for some parents and impossible for others. One cannot address low breastfeeding rates without addressing the structural changes needed to enable breastfeeding as a personal choice for all populations, not just high-status populations.[24]

Participants repeatedly highlighted inequity in knowledge, resources, and support access.

Some social systems that impact a parent's breastfeeding ability that participants in the study highlighted exclusively were the role of social interactions on parents' breastfeeding knowledge, access to postnatal social and emotional support, socioeconomic status, geography, and access to specialized breastfeeding support. Notably, both participants emphasize findings from previous literature regarding the midwifery care model uniquely addressing these social systems through the holistic approach.[28,29] Midwifery care in Nova Scotia provides biopsychosocial support during pregnancy, birth, and postpartum periods to all clients, prioritizes vulnerable populations who are at a disproportionate risk of low breastfeeding exclusivity and duration, incorporates personalized breastfeeding support and education into postnatal home visits, and connects parents to additional breastfeeding support as needed. This care is directly aligned with Baby-Friendly practices outlined in the Ten Steps to Successful Breastfeeding.[10]

The BFI provides a set of evidence-based practices to promote positive breastfeeding outcomes that organizations must follow to be designated Baby-Friendly.[10] Consistent implementation of these practices across healthcare providers and organizations promotes equitable access to breastfeeding education, resources, and support across all populations,[10] thus reducing inequity. For example, the BFI addresses the consistent implementation of competencies to support breastfeeding in practice and supporting parents minimizes inadequate access to appropriate, evidence-based education and support.[10] Early continuous ongoing access to breastfeeding care is another component of the BFI which minimizes inequity and is aligned with the midwifery model of care.[10]

Participants also mentioned that the current lack of time and energy for healthcare providers to support initiatives in BFI was exacerbated by the COVID-19 pandemic. Unfortunately, participants noted that the effects of the pandemic on the healthcare system have exacerbated inequities in breastfeeding support between populations. Staff shortages, competing system demands, and mandated social distancing requirements were identified as considerable barriers to consistent implementation of Baby-Friendly care practices. Overall, breastfeeding parents reported negative experiences in the health care system and less professional and social breastfeeding support throughout the pandemic.[31] This is consistent with what our participants described regarding their breastfeeding support experience in this context. Recent research regarding breastfeeding care during the pandemic recommends maintaining online education and support to make support more accessible while prioritizing in-person care whenever possible.[31] Availability of accessible 24/7 support is consistent with our participants' comments regarding aspects of the midwifery model of care that facilitate the continuity of care outlined in the BFI.

STRENGTHS

The study highlighted the disciplinary perspective of midwives. This perspective allowed us to understand how midwifery care is crucial to breastfeeding support and the need for widespread implementation of the midwifery care model in Nova Scotia. This study was guided by well-established implementation science theories[14–18] to help comprehensively identify key behavioural determinants influencing BFI implementation from a midwifery perspective. Numerous strategies were used to promote the trustworthiness of the findings, as described in the study methods.[19]

LIMITATIONS

Due to the constraints of COVID-19, demands within the current Nova Scotia health care system, and the undergraduate honours research student timeline placed on this study, we could only recruit two participants. Therefore, findings may not represent all midwives practicing in Nova Scotia.

IMPLICATIONS

The data from this study will be combined with data from the larger province-wide study. The larger three-phase study aims to create contextually relevant BFI implementation strategies to increase BFI uptake across Nova Scotia to support breastfeeding initiation, exclusivity, and duration. The data from this study is part of phase one and will help create future contextually relevant implementation

interventions to promote, protect, and support breastfeeding provincially. Participants in this study emphasized the aspects of the midwifery care model that benefit BFI implementation and breastfeeding support, including home visits, responsive care, biopsychosocial support, and continuity of appropriate care. These midwifery care approaches should be integrated in all care settings by care providers who interact with parents and infants during pregnancy, birth, and postpartum to support positive breastfeeding outcomes.

CONCLUSION

This timely project was essential because of the unique midwifery perspective examined and the use of implementation science theory to comprehensively understand barriers and facilitators to BFI implementation. Participant responses led us to three key themes of barriers and facilitators to BFI implementation and breastfeeding. These included: (1) *Client Education Needed to Support Breastfeeding,* (2) *Family, Peer, and Community Supports Needed for Breastfeeding,* and (3) *Equity in Access to Breastfeeding Supports.* This study highlighted the need for widespread implementation of the midwifery care model across Nova Scotia to support BFI and breastfeeding through equitable access to breastfeeding resources, knowledge, and supports.

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APPENDIX A: INDUCTIVE CONTENT ANALYSIS SUBCATEGORIZATION TABLE

COM-B Domain	TDF Domain	Subcategories	Example Barriers/Facilitators
Capability			
Psychological	**Knowledge**	Client education needed to support breastfeeding	Client education related to breastfeeding expectations (anticipatory support) Client education related to supporting breastfeeding Gaps in education exacerbated by COVID Beginning breastfeeding education before pregnancy Begin education early in pregnancy Consistent education for breastfeeding parents Gaps in education around breastfeeding for families and communities Consistent education for breastfeeding parents
		Consistent health care provider education needed to support breastfeeding and BFI	Health care provider training and education around breastfeeding Past BFI experience, knowledge of the steps and implementation Educate all health care providers who may come in contact with pregnant people or new parents on breastfeeding
		Hospital policies necessary to support BFI practices	Hospital policies and approaches to support breastfeeding while in hospital
	Cognitive and interpersonal skills	Communication and education skill development and refinement	Communication and education skill development and refinement
		Health care provider communication skills with clients	Health care provider communication skills with clients Supporting parent mental health so they can breastfeed
	Memory, attentions, & decision processes	Health care provider convenience	Health care provider convenience
	Behavioural regulation	Changes in perinatal care to evidence-informed practice	Changes in perinatal care to evidence-informed practice
		Infant feeding policies that protect breastfeeding	Infant feeding policies that protect breastfeeding Policies to support skin-to skin contact (one of the ten steps and a breastfeeding promoter) Keeping health care providers up to date on new procedures, policies, and best-practices Communication of relevant breastfeeding information and policies to staff
Physical	**Physical skills**	Midwives have the physical skills to provide breastfeeding support	Midwives have the physical skills to provide breastfeeding support

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COM-B Domain	TDF Domain	Subcategories	Example Barriers/Facilitators
Opportunity			
Social	**Social influence**	Family, peer, and community supports needed for breastfeeding	Family influence on the decision to breastfeed Importance of community encouragement for breastfeeding Social and mental support required for breastfeeding uptake Breastfeeding mentorship/modeling among community Peer support for breastfeeding parents Use peers' expertise for BFI implementation Community resources to support breastfeeding parents in reaching breastfeeding targets
		Hospital staff social influence on parents' decision to breastfeed	Effective interdisciplinary collaboration and communication Hospital staff influence parents beginning breastfeeding Potentially beneficial BFI implementation support
		Midwifery care includes comprehensive biopsychological support for breastfeeding parents	Providing postpartum breastfeeding support for parent concerns and questions Respecting cultural beliefs and values around modesty and infant feeding
Physical	**Environmental context and resources**	Equity in access to breastfeeding supports	Equitable funding for breastfeeding support Physical distance from breastfeeding support Provide travelling breastfeeding support to increase accessibility Integrate breastfeeding education and support during pregnancy and postpartum care so it is widely available to all Nova Scotians COVID-19 decreasing available supports for breastfeeding parents and BFI implementation Access to quality or professional breastfeeding support
		Lack of health care provider time and energy to prioritize breastfeeding and BFI	Lack of health care provider time and energy Availability of support from busy hospital staff on the ward and prioritization of urgent patients
Motivation			
Automatic	**Reinforcement**	Accountability for following breastfeeding best-practices	Accountability for following breastfeeding best-practices
		Use external incentives to gain health care provider support for BFI implementation	Use external incentives to gain health care provider support for BFI implementation
	Emotions	Postpartum mental health challenges can make breastfeeding overwhelming	Postpartum mental health challenges can make breastfeeding overwhelming

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COM-B Domain	TDF Domain	Subcategories	Example Barriers/Facilitators
Reflective	**Intentions**	A long-term strong commitment to BFI implementation	A long-term strong commitment to BFI implementation
		Some families do not have intentions to breastfeed	Some families do not have intentions to breastfeed
	Goals	Reuse past implementation strategies	Reuse past implementation strategies
		Continuity of education and support, a goal of midwifery care	Provide continuity in education for individual families from pregnancy through postpartum Effectively communicate breastfeeding resources and provide seamless transition
	Beliefs about consequences	Health care provider awareness of breastfeeding benefits	Health care provider awareness of breastfeeding benefits
		Understand consequences of feeding aids	Understand consequences of feeding aids
	Beliefs about capabilities	Preconceptions that breastfeeding is going to be easy	Preconceptions that breastfeeding is going to be easy
	Social/ professional role identity	Midwifery care practices providing unique support for new parents and pregnant people	Midwifery care practices providing unique support for new parents and pregnant people
	Optimism	NONE	N/A