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An Exploration of Trauma-and-Violence Informed Care for Supporting Breastfeeding Practices Among Mothers who are At-Risk: The Experiences of Breastfeeding Social Support

Emila Siwik, *The University of Western Ontario*

Supervisor: Mantler, Tara, *The University of Western Ontario*

Co-Supervisor: Irwin, Jennifer D., *The University of Western Ontario*

A thesis submitted in partial fulfillment of the requirements for the Master of Science degree in Health and Rehabilitation Sciences

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BREASTFEEDING SOCIAL SUPPORT AND AT-RISK

Abstract

Mothers who are at-risk (lack breastfeeding social support, young, of low socioeconomic status, and experienced intimate partner violence) are less likely to maintain breastfeeding practices, compared to mothers who are not at-risk. This study explored at-risk mother's experiences of participating in a trauma-and-violence informed breastfeeding intervention on perceived formal and informal breastfeeding social support, and breastfeeding practices. This cross-sectional study of nine in-depth interviews used interpretive description at 12-weeks postpartum with mothers who are at-risk. Results found formal support including emphasis on safety and trustworthiness, choice, collaboration, and connection, and skill building to support resilience enabled mothers to continue their breastfeeding practices. Formal and informal (i.e., partners, friends, and extended family) breastfeeding social supports provided mothers with tangible, verbal, informational, and/or emotional support which they found beneficial in maintaining their breastfeeding goals. This trauma-and-violence informed care breastfeeding intervention shows promise in alleviating an array of breastfeeding challenges for mothers who are at-risk.

Keywords: breastfeeding, at-risk, intimate partner violence, breastfeeding social support, trauma-and-violence informed care

Summary for Lay Audience

Breastmilk is known around the world to be best for an infant's diet, with health benefits for both mother and infant. The World Health Organization suggests infants should be fed to six months of age with only breastmilk, but only 33% of Canadian mothers do this. Mothers who are at-risk (have no breastfeeding social support, are young, of low socioeconomic status, and have been and/or still abused by someone with whom they are or were in a relationship with) are likely to not breastfeed. The Postnatal Wellness Clinic in London, Ontario is a team of family doctors who provide trauma-and-violence informed care to breastfeeding mothers, meaning they provide care by teaching mothers breastfeeding skills in a safe place where they can talk about their breastfeeding challenges. Trauma-and-violence informed care has not been studied before in women who are at-risk, when looking at both breastfeeding practices (how long and when a mother breastfeeds) and social support. This study will look at the use of formal (e.g., doctors, nurses) and informal (e.g., family, friends) breastfeeding social support of breastfeeding mothers who are at-risk. This study used interpretive description and had nine mothers who completed one 60-to-90-minute semi-structured interview at 12-weeks postpartum. Participants reported that formal social support promoted safety and trustworthiness, choice, collaboration, and connection, and skill building to support resilience, which helped mothers to continue their breastfeeding practices. Additionally, mothers who are at-risk enjoyed having their formal breastfeeding social support give them tangible support, meaning showing them how to hold their baby in a comfortable spot to feed, verbal support, such as giving them lots of encouraging words to continue breastfeeding, and information support, referring to tips to make breastfeeding easier. Also, mothers benefited from having their informal social supports there for them. Their partners helped most when they were present during infant feedings, friends when they also

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breastfeed their own infant by showing mothers tips to make breastfeeding easier, and extended family members who did not tell them how they should be breastfeeding their infant. All mothers who used the program were found to overcome their breastfeeding challenges and continued breastfeeding to meet their goals.

Co-Authorship Statement

The completion of the original work in my thesis would have not been possible without the help of my supervisor and fellow co-authors. Their helping hand and guidance have played a large role in shaping the creation and development of my thesis - and for this, I am forever grateful. Dr. Tara Mantler, this study would have never existed without your passion for women's health. Thank you for allowing me to become a part of your team. You have supported me since the very beginning of my thesis/master journey from ongoing meetings to publishing. I would also like to acknowledge my co-authors, Drs. Kimberley T. Jackson, Shauna M. Burke, and Jennifer D. Irwin for their continuous support in the writing of my thesis. To my fellow team member, Sam. Thank you for working alongside me to complete recruitment, interviews, and transcriptions. Lastly, I would like to thank Dalia, a WHMR team research assistant who had volunteered her time to assist with transcriptions. This thesis would not have been possible without all your help - thank you.

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The quote by Dr. Susan Jeffers reading, “*feel the fear and do it anyways*” has been my constant motivator during my entire master journey. Growing up, becoming a risk-taker, and turning my goals into a reality was something unimaginable for my introverted self. The ability to step outside of my comfort zone, establish a variety of new skills, and face fear straight in its eyes; would not have been possible without the individuals who I have met and had the pleasure of working with along the way.

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Chapter 1: Introduction

The transition to becoming a mother is associated with a myriad of new joys and challenges (Kanoetra et al., 2007). One challenge that many new mothers identify as a source of stress is breastfeeding (Dennis, 2002). Breastfeeding is the optimal source of nutrition for infants (Basir et al., 2015; Sankar et al., 2015). To promote infants' optimal health, the World Health Organization (WHO; Bernardes & Cesar, 2013) recommends exclusive breastfeeding (i.e., only a mother's breastmilk without the use of any feeding substitutions, such as bottles) for a minimum duration of six months. For continued optimal health, mothers who are able to, can breastfeed up to 12 months. Adhering to this recommendation is associated with long-term benefits for both mother and infant (Bernardo & Cesar, 2013). Benefits for mothers include a reduction in the risk of postpartum depression, metabolic syndrome, and breast cancer, while advantages for infants include a reduced risk of malnutrition (i.e., stunt growth) and obesity (WHO, 2009^a; Bernardo & Cesar, 2013; Schwarz & Nothnagle, 2015; Kapoor, Kalia, & Kalia, 2020). Not adhering to this recommendation is associated with long-term risks for both mother and infant. Rather than benefiting from breastfeeding, mothers are at a heightened risk of experiencing postpartum depression, metabolic syndrome, and breast cancer, while infants are at an increased risk of malnutrition and obesity (WHO, 2009^a; Bernardo & Cesar, 2013; Schwarz & Nothnagle, 2015; Kapoor et al., 2020). Despite the plethora of evidence supporting the importance and health benefits of breastfeeding, many mothers experience difficulty with breastfeeding exclusivity and/or duration (hereby after referred to as 'breastfeeding practices'; WHO, 2009^a; Bernardo & Cesar, 2013).

Reasons mothers experience breastfeeding difficulties include breastfeeding-related pain (Jackson, Mantler, & O'Keefe-McCarthy, 2019; Dennis, 2002), troubles with latching (Lushniak,

2014), concerns about sufficient milk supply (Lushniak, 2014), lack of knowledge surrounding breastfeeding practices (Laanterä, Pölkki, & Pietilä, 2011), limited support from partners and/or family members (Cisco, 2017), and pressure from formal caregivers to stop exclusively breastfeeding (Cisco, 2017). As a result of these difficulties, mothers may prematurely stop breastfeeding. What is, perhaps, most alarming is that many mothers prematurely cease breastfeeding (in other words, discontinue their breastfeeding practices prior to their infant being six months of age) because of difficulties as opposed to a preference to stop (Dennis, 2002).

Difficulties associated with breastfeeding disproportionately impact mothers who are ‘at-risk’ (WHO, 2009^a; Statistics Canada, 2019). ‘At-risk’ is operationalized as a lack of breastfeeding social support (formal and informal support; Dennis, 2002) and/or at least one of the following: being young (under the age of 25; Dennis, 2002), having low socioeconomic status (making less than \$31,000 yearly; Dennis, 2002), and/or having a history of intimate partner violence (IPV; Cerulli, Chin, Talbo et al., 2010). A study by Gionet (2015), identified 11% of Canadian breastfeeding mothers were young (under the age of 25), uneducated, and single. When considering age alone, of these mothers, 25% believed bottle feeding was easier, which led to an increase in early cessation of breastfeeding practices. This finding is startling, when compared to 77% of older (over the age of 35 years) mothers who breastfed exclusively for six or more months (Gionet, 2015). Similarly, when considering mothers of low socioeconomic status alone at any age, they are at an increased likelihood of weaning their infant before six months of age as addressed in a cohort study of 451 birthing parents by Newhook and colleagues (2017). Researchers found that 24% of mothers with low socioeconomic status ceased breastfeeding before their infant was six months of age compared to seven percent in higher socioeconomic status mothers (Newhook et al., 2017). Among considering mothers with only a

history of IPV, a systematic review of 12 studies by Mezzavilla, Ferreira, Curioni, Lindsay, and Hasselmann (2018) found IPV was linked to a mother prematurely ceasing breastfeeding practices prior to an infant being six months of age. Moreover, mothers who lack breastfeeding social support are more likely to choose formula over breastmilk, as identified in a report by Lushnaik (2014). Together lacking social support, being young, having low socioeconomic status, and experiencing and/or have experienced IPV means mothers who are at-risk are more likely to prematurely cease their breastfeeding practices. It was reported in 2019, that only 33% of Canadian mothers met the WHO breastfeeding guidelines, of breastfeeding exclusivity and/or duration for a minimum of six months (Victoria et al., 2016; Statistics Canada, 2019). Given the heightened risk these mothers face when breastfeeding recommendations are not met (e.g., postpartum depression), it is important to have tailored breastfeeding interventions that meet the needs of mothers who are at-risk.

The community-based response to support breastfeeding mothers who are at-risk is lacking (Cattaneo et al., 2010, Renfrew et al., 2006). Brown and colleagues (2013) identified that the social determinants of health play a large role in early breastfeeding cessation and highlighted a need for more research and intervention in this area. However, to date, little work has been done - outside of modifiable risk factors (e.g., smoking during pregnancy, alcohol use during pregnancy) - to address this gap for mothers who are at-risk. In Canada, available public health services are often focused on the risks associated with being a new mom (e.g., postpartum depression; Zauderer, 2009), rather than addressing systemic inequities that breastfeeding mothers who are at-risk face (Cattaneo et al., 2010; Renfrew et al., 2006).

One means to address systemic inequities is through policy (Kett, 2020). Currently, there are limited policies in place to support breastfeeding practices for mothers. The limited existing

policies tend to primarily focus on access to formal breastfeeding social supports for mothers to maintain their breastfeeding practices (Kett, 2020). A high-level policy by WHO/UNICEF and the Government of Canada address *10 Steps to Successful Breastfeeding* to support mothers through implemented procedures that should be in maternity and newborn care services (WHO & UNICEF, 2018). A simplified list of what is outlined in this document to help facilitate breastfeeding for formal care providers (i.e., physicians, lactation consultants, and nursing staff) who are directly related to breastfeeding include: engaging in discussion of the importance of breastfeeding and how to manage it; support mothers as they initiate and attempt to maintain breastfeeding; prioritize mothers to not provide newborn with any food or fluids other than breastmilk for the first six months of an infant age, and support mothers to recognize and respond to their infants' cues for feeding (WHO & UNICEF, 2018). While these procedures represent a helpful direction for the first point of contact with new mothers surrounding breastfeeding, these steps are general and not tailored to the breastfeeding social support needed to alleviate breastfeeding difficulties of mothers who are at-risk. Evidence suggests that the *10 Steps to Successful Breastfeeding* are more useful for older, educated women who have breastfeeding social support and are able to navigate the decisions and challenges of breastfeeding a newborn independently (Dennis, 2002; Schmied, Beake, Sheehan, McCourt, and Dykes, 2010). Moreover, inherent to this policy are inequities as a prerequisite for success, and that mothers need to have access to formal breastfeeding social supports and regular follow-up care. However, mothers who are at-risk often do not have a health care provider during their postpartum period (Reeves, 2015), and lack knowledge of postpartum services (Knox, 2018). Thus, despite the overwhelming evidence of low breastfeeding practice rates among mothers who are at-risk, these mothers are often left to navigate the labyrinth of health care services on

their own in order to gain access to appropriate breastfeeding social supports (EU, 2008; Reeves, 2015). As a result, mothers who are at-risk are often more likely to wean their infants off breastmilk to formula, as this *quick fix* often alleviates an array of breastfeeding practice difficulties (e.g., breast soreness cracked nipples, infection and breastfeeding-related pain, and concerns about milk supply; Jackson et al., 2019; Dennis, 2002).

Given the importance placed on formal breastfeeding social supports by public health, it is imperative to explore the relationship between formal breastfeeding social supports and breastfeeding practices in mothers who are at-risk (Dennis, 2002). Specifically, in a literature review of 100 randomised control trails (73 studies) by McFadden and colleagues (2017), the researchers found that in 32 of the reviewed studies, mothers' participation in scheduled visits with a formal breastfeeding social support during the early postpartum period was associated with a decrease in the cessation rates of exclusive breastfeeding at four to six weeks. McFadden and colleagues (2017) highlight the importance of breastfeeding social support early in the postpartum period, a finding which agreed with Renfrew (2012) who identified that breastfeeding social support can be effective in promoting the intention to continue breastfeeding. However, to date, the impact of breastfeeding social support and its influence on breastfeeding practices has not been studied in mothers who are at-risk.

Within the context of at-risk, IPV requires a specific response in health care to ensure that the services meet the needs of the women and that they can safely engage with said services (Ford-Gilboe et al., 2020). Once such approach that has been established as effective in supporting and meeting the needs of women with histories of IPV, is trauma-and-violence informed care (TVIC; Varcoe, Wathen, Ford-Gilloe, Smye, & Browne, 2016). TVIC utilizes services that deliver and place priority on an individual's safety, choice, and control through a

partnership between service provider and service user (Varcoe et al., 2016; Provincial Health Services Authority of BC, 2013), and is defined as “health care that is safe and accessible for people who are impacted by trauma and violence” (Levine, Varcoe, & Browne, 2020, p. 46). TVIC accounts for a mother’s history of abuse while formulating an engaging relationship built on trust, safety, choice, communication, collaboration, and skill building (Provincial Health Services Authority of BC, 2013; Varcoe et al., 2016). Ford-Gilboe and colleagues (2020) found that women who have a history of IPV are more likely to benefit from a program such as TVIC compared to other programs, as TVIC considers the context and complexity of their lives and needs. Given the effectiveness and acceptability of TVIC interventions for women who have experienced IPV, Varcoe, Wathen, Ford-Gilboe, Smye, and Browne (2016), advocated for formal care providers to implement TVIC programs into their practices, as Canadian evidence suggests that one in four of women will experience IPV in their lifetime (Cohen & Maclean, 2004).

The remainder of this chapter will provide working descriptions and a literature review of the following topics: (a) breastfeeding; (b) breastfeeding social support; (c) breastfeeding and IPV; (d) breastfeeding and TVIC; and (e) breastfeeding, TVIC, and formal social support. Lastly, a summary of evidence and the study’s purpose will be presented.

Working Descriptions and Literature Review

Breastfeeding

Breastfeeding is the act of feeding one’s infant with milk produced by the mothers’ breast (Bernardo & Cesar, 2013). This production of milk is universally recognized as the optimal source of infant nutrition (Basir et al., 2015; Sankar et al., 2015). Over the last decade, there has been an increased use of health promotion campaigns encouraging breastfeeding (Knox, 2018).

One such campaign is “breast is best” to promote the positive health benefits associated with breastfeeding exclusively for a minimum of six months (Knox, 2018). This slogan; however, can create more harm than good, as the ability to maintain breastfeeding practices can be difficult for many mothers (Mozingo, Davis, Droppleman, & Meredith, 2000). In some instances when mothers cannot breastfeed, the use of “breast is best,” while well-meaning, has led to feelings of brokenness, exhaustion, shame, and betrayal (Morns, Steel, Burns, & McIntyre, 2020; Jackson et al., 2019). The need for health promotion campaigns in Canada stems from the fact that only 33% of women adhere to the recommendation of exclusive breastfeeding for six months, a goal set out by the WHO (Statistics Canada, 2019). Mothers who do not introduce breastfeeding or maintain their breastfeeding practices for a minimum duration of six months, place both themselves and their infant in danger to developing negative health consequences (e.g., cancer for mothers and malnutrition for infants; Bernardo & Cesar, 2013). It is important to acknowledge that these negative health conditions can consequently introduce a negative toll on the bond between infant and mother, when WHO breastfeeding guidelines are not met (Bernardo & Cesar, 2013). As a result, mothers may feel debilitated, and sense as though they are not doing a good enough job. Therefore, it is more important than ever, for mothers to participate in breastfeeding practices, to aid in reaching optimal health and promoting infant-maternal bond (Bernardo & Cesar, 2013; Dennis, 2002).

The benefits of breastfeeding and reaching WHO breastfeeding guidelines for mothers include: (a) reduction in postpartum bleeding and/or uterine infections; (b) weight loss; (c) reduced risk of ovarian and breast cancer; and (d) reduced risk of postpartum depression (Dennis, 2002; Bernardo & Cesar, 2013). While the benefits for infants include: (a) reduced incidence or severity of gastrointestinal (e.g., diarrhea) and respiratory complications (e.g.,

asthma); (b) protection against sudden infant death syndrome, diabetes, and certain cancers (e.g., leukemia); and (c) increased neurological and cognitive development (Dennis, 2002; Bernardo & Cesar, 2013). These health benefits show just how important breastfeeding practices really are. Not only are infants and mothers benefiting short-term from meeting WHO breastfeeding guidelines (e.g., reduced risk of malnutrition; reduced risk of developing postpartum depression), but also long-term with a reduced risk of developing serious health conditions throughout one's lifespan (e.g., cancer). Although breastfeeding is highly recommended in the literature (Bernardo & Cesar, 2013; WHO, 2009; Dennis, 2002), not all mothers are able to breastfeed and achieve the optimal health benefits listed above. Researchers have highlighted that a mother's decision to breastfeed is influenced by one's informal and formal breastfeeding social supports (Dennis, 2002), and exposure to IPV (Cerulli et al., 2010). Each will be discussed in turn.

Breastfeeding Social Support

Informal. Informal breastfeeding social supports are often associated with the infant's father or the mother's partner; however, Raj and Plichta (1998) identified informal breastfeeding social supports can also include extended family members (e.g., infant's grandparents) and friends. Specifically, in a study by Yuet Wan Lok, Bai, and Terrant (2017), breastfeeding intentions and infant feeding practices were investigated in the context of family dynamics in 1277 breastfeeding mother-infant pairs. Researchers identified that mothers whose partners supported and preferred breastfeeding for the infant were 70% more likelihood to maintain exclusive breastfeeding, compared to those whose partners were not supportive and preferred formula or mixed feeding of the infant (Yuet Wan Lok, Bai, & Terrant, 2017). Yuet and colleagues (2017) also found related results of higher rates of maintained exclusive breastfeeding practices when mothers had the support of their extended family members (Yuet Wan Lok et al.,

2017). A study by Cisco (2017) investigated the influence of kin and non-kin support on breastfeeding duration among 1140 mothers. They found breastfeeding support from a mother's father, mother, and friends had the greatest influence on breastfeeding practices for new mothers. Specifically, mothers who spoke frequently to their own fathers regarding breastfeeding practices had a 29% decrease in prematurely ceasing breastfeeding practices (Cisco, 2017). Mothers found their mothers were often a source of informational support, while friends offered emotional support resulting in a 31% decrease in mothers prematurely ceasing breastfeeding practices at any given time during the postpartum period (Cisco, 2017). As such, the informal breastfeeding social supports of a mother's father, mother, and friends appear to have the greatest influence on breastfeeding practices (Yuet Wan Lok et al., 2017; Cisco, 2017).

Formal. Mothers who are at-risk have been identified in the literature as needing additional formal breastfeeding social supports (Dennis, 2002). To date, there are no published studies investigating the role of formal breastfeeding social support among mothers who are at-risk. As such, the following literature review section will focus on formal breastfeeding social support regarding the general breastfeeding population. Formal care providers (such as nurses, obstetricians, and lactation specialists) can play a significant role in a mother's breastfeeding practice (Reeves, 2015). Many mothers expressed the need for formal care providers to support them during the initiation of breastfeeding and navigation of breastfeeding challenges (Bernardo & Cesar, 2013). In a study by Sheehan, Schmied, and Barclay (2009), 37 mothers' expectation and experiences of formal breastfeeding social support by professionals was assessed in the first six weeks postpartum. Authors assessed outcomes specific to infant feeding practices. Sheehan and colleagues (2009) reported effective breastfeeding social support was perceived by mothers when care providers were available (easy to contact and communicate with), present during

feedings, and provided practical support (e.g., how to position the infants head for proper latching). Mothers also identified that effective formal breastfeeding social support needed to include care providers who respected each mother as unique and with their own experiences, were honest that breastfeeding was not easy, and avoided judging the mother based on her feeding preferences (Sheehan et al., 2009). Overall, the researchers underscored that formal breastfeeding social supports must remain positive to encourage mothers to maintain their breastfeeding goals, while ensuring sensitivity, flexibility, and access to a variety of breastfeeding resources (e.g., online education) to meet the needs of mothers (Sheehan et al., 2009).

In addition to formal breastfeeding social supports that encourage mothers to remain positive about their breastfeeding goals, mothers outlined the need for formal care providers to have an authentic presence and facilitative style, as found in a meta synthesis of 31 studies by Schmied, Beake, Sheehan, McCourt, and Dykes (2010). Schmied and colleagues (2010) examined mothers' perceptions and experiences of breastfeeding social support from their formal care providers. Specifically, formal breastfeeding social supports who were authentic and encouraged a trusting relationship based on shared experience (e.g., breastfeeding difficulties) supported a woman's confidence in her ability to breastfeed (Schmied et al., 2010). By adopting a facilitative style, wherein formal care providers draw on material and information from a range of experiences, providers can work in partnership with the mothers providing realistic information, encouragement for breastfeeding, and practical support (Schmied et al., 2010). The findings of this study highlight the need for person-centered communication built on a foundation of a trusting relationship to support mothers with their breastfeeding practices (Schmied et al., 2010).

Supporting mothers with their breastfeeding practices often starts in a clinic-based setting with a formal care provider. In a cross-sectional study by Bano-Pinero, Martinez-Roche, Canteras-Jordana, Carrillo-Garcia, and Orenes-Pinero (2018), the authors examined postpartum mothers' experiences of and satisfaction with the consultations they had, and support experienced with their formal care providers during routine postpartum and/or breastfeeding meetings. Researchers found that 89.3% of mothers identified having a positive experience with their formal care provider in relation to the breastfeeding social support and education received surrounding breastfeeding practices (Bano-Pinero, Martinez-Roche, Canteras-Jordana, Carrillo-Garcia, & Orenes-Pinero, 2018). The support received positively influenced the mothers in this study to breastfeed for a longer period, with 23.3% identifying their formal care provider as providing significant support towards their breastfeeding continuation (Bano-Pinero et al., 2018). The above findings highlight the need for and importance of formal breastfeeding social support care on breastfeeding practices among mothers who are at-risk.

Breastfeeding and Intimate Partner Violence

IPV is defined as acts of physical, sexual, and/or emotional harm caused by an intimate partner within in context of coercive control (Tjaden & Thoennes, 2000). IPV is the most common form of gender-based violence affecting one in three women globally (WHO, 2013) and 25 to 30% of Canadian women (Mantler, Jackson, & Walsh, 2018; Burnett, Ford-Gilboe, Berman, Wathen, & Ward-Griffin, 2016). IPV results in an array of serious physical, social, and mental health consequences including, but not limited to: fractures; head injuries; social anxiety; loss of autonomy; loss of economic mobility; post-traumatic stress disorder; and depression (Black, 2011; WHO, 2012; Beydoun, Williams, Beydoun, Eid & Zonderman, 2017). Researchers have established that pregnancy and postpartum periods carry an increased risk of IPV

(Silverman, Decker, Reed, & Raj, 2006; Howell, Miller-Graff, Hasselle, & Scrafford, 2017). In a systematic review of 17 studies addressing the effects of IPV during pregnancy by Howell, Miller-Graff, Hasselle, and Scrafford (2017), the authors found that abuse and stressors associated with IPV can negatively impact a mother's ability to breastfeed and care for her infant. In a systematic review of 12 studies, Mezzavilla and colleagues (2018) found IPV led to lower breastfeeding intention, early termination of breastfeeding practices, decreased breastfeeding initiation, and decreased breastfeeding duration. Mezzavilla and colleagues (2018) also found that not experiencing IPV was a key predictor in maintained breastfeeding practices past six months of an infant's life anywhere up to one year. A similar finding was reported by Wallenborn, Cha, and Masho (2018), in a report from the *2004-2014 Pregnancy Risk Assessment Monitoring System* which included 195,264 low-income breastfeeding mothers. Wallenborn and colleagues (2018) found six percent of respondents experienced IPV, resulting in negative impacts on the breastfeeding practices. Of those mothers, 36% never initiated breastfeeding. Mirroring these results, in a study assessing breastfeeding practices during routine infant checkups, Hasselmann, Lindsay, Surken, Vasconcellos de Barros Vianna, and Wernek (2016), found that of 564 children aged 30 to 60 days of age, 33.7% of mothers experienced IPV and of these mothers, 39.7% ceased breastfeeding in the second month of their infant's life. The researchers also concluded that IPV led to a 30% increase in premature breastfeeding cessation compared to mothers who did not experience IPV, regardless of maternal age, schooling, and household assets (Hasselmann, Lindsay, Surkan, Vasconcellos de Barros Vianna, & Werneck, 2016). Similarly, Moraes, de Oliveria, Reichenhie, and Lobato (2011) studied 811 mothers who experienced severe physical violence. Of these mothers, 53.9% were no longer exclusively breastfeeding as early as 30 days postpartum. As a result, mothers became at risk for poorer

mental and physical health outcomes. These negative outcomes (e.g., increase in postpartum depression and breast cancer; Bernardo & Cesar, 2013) were in addition to those associated with the violence they endured. The reduction in breastfeeding duration and poorer health outcomes observed by women who are experiencing IPV, points to the importance and need to address breastfeeding social support in this vulnerable population (Kendall-Tackett, 2007).

The risk of breastfeeding cessation is further compounded when mothers not only experienced IPV but also are of low socioeconomic status (WHO, 2009^a; 2013). Specifically, experiences of mothers who have low socioeconomic status and experienced IPV were studied by Miller-Graff, Ahmed, and Paulson (2018) to examine the impact on breastfeeding practices of mothers between the ages of 18 to 39 years. Findings from the longitudinal one-group survey showed that of the 38% of mothers who reported exposure to IPV, 91% initiated breastfeeding, 56% continued to breastfeed, and only 32% breastfed exclusively at six weeks postpartum (Miller-Graff, Ahmed, & Paulson, 2018). This is in comparison to breastfeeding rates in the general Canadian population, which in 89% initiated breastfeeding, 51% breastfed exclusively at four months, and 26% breastfed exclusively at six months (Gionet, 2015). It is evident that continued breastfeeding practices are higher in mothers who have not experienced IPV, and therefore, it is important for these mothers to have access to the breastfeeding social support needed early on in their postpartum period.

Breastfeeding and Trauma-and-Violence Informed Care

TVIC moves beyond individual pathology to focus on aspects of health equity, structural violence, and the social determinants of health. TVIC is an orientation of care that assumes all patients have had or are experiencing trauma and/or violence, while approaching care in a way that does not further the inequities and/or challenges being faced (Elliott, Bjelajac, Fallot,

Markoff, & Glover Reed, 2005; Browne et al., 2012). There are four key principles to TVIC: (1) trauma and violence awareness, and the impact on peoples' lives and behaviours; (2) emphasis on safety and trustworthiness; (3) opportunity for choice, collaboration, and connection; and (4) strengths based and skill building to support resilience (Ponic, Varcoe, & Smutylo, 2018; Provincial Health Services Authority of BC, 2013; Browne et al., 2012). Incorporating TVIC principles into formal care practices builds awareness of the impact, prevalence, range, and significance of trauma and violence by providing individuals with a safe space (Ponic et al., 2018; Provincial Health Services Authority of BC, 2013; Browne et al., 2012). TVIC advocates for the structural changes needed to benefit service users by mitigating power imbalances and acknowledging the historical and structural conditions, like inequities and violence, that have developed over time and are embedded in existing health and social services (Ponic et al., 2018; Provincial Health Services Authority of BC, 2013; Browne et al., 2012). By fostering a safe environment that enforces privacy, dignity, and respect (Elliott et al., 2005; Brown et al., 2012), TVIC aims to reduce harm, promote partnership, and improve system responses to meet the needs of all individuals (Provincial Health Services Authority of BC, 2013).

The use of TVIC is important, as without targeted approaches to care that support women who have experienced violence, there is evidence that these mothers are more likely to be re-traumatized during care (Dennis, 2002; Cerulli et al., 2010), and to be left out of breastfeeding practices policy and program planning. In turn, leading to policies and programs that are not effective for these mothers (Brown et al., 2013; Reeves, 2015). When mothers seek advice from care providers who are unable to respond to their specific needs and do not consider their history of trauma/violence, they are more likely to engage with multiple care providers and/or prematurely stop breastfeeding (Cisco, 2017). The use of TVIC for mothers who are at-risk is

limited in maternity care (Reeves, 2015; Varcoe et al., 2016); however, in a literature review exploring the need for trauma-informed care (TIC)¹ in maternity care practice by Sperlich, Seng, Li, Taylor, and Bradbury-Jones (2017^a), the authors found limited care approaches for mothers with a history of trauma. They emphasized TIC defined as care that “prioritizes the need to create an emotionally safe environment based on an understanding of the health effects of trauma” (Browne et al., 2015, p. 3), could address and minimize additional traumatic stressors associated with childbearing. Specifically, breastfeeding needs of mothers who have experienced trauma has not yet appeared in formal care settings (Sperlich, Seng, Li, Taylor, & Brandbury-Jones, 2017^a). Echoing this, in a study by Knox (2018) addressing infant feeding practices of 13 mothers with a history of adverse childhood trauma, the author highlighted the appropriateness of introducing TVIC as a care approach in maternity care for mothers with a history of trauma, in addition to TIC. Knox (2018) highlighted incorporating TVIC into maternity care, as both trauma and violence are considered, better meeting the needs of mothers who are at-risk. Therefore, TVIC is an appropriate care approach for mothers who are at-risk based on the collection of research addressed above; however, there is a current gap in the literature exploring the use of TVIC in addition to TIC on breastfeeding practices among mothers who are at-risk.

Trauma-and-Violence Informed Care, and Formal Breastfeeding Social Support

Currently there is no studies in the literature exploring TVIC and formal breastfeeding social support. Several authors have highlighted the need for TVIC care for mothers who are at-risk and breastfeeding, recognizing they value a formal care provider who openly discusses

¹ As TVIC is emerging in the field of literature, TIC has often been used to support women who have experienced trauma. However, this irritation does not include violence. TVIC accounts for systemic violence in addition to trauma.

aspects of abuse and medical issues, is emotionally available, can be contacted easily, and provides one-on-one care (Battaglia, Finley, & Liebschutz, 2003; Decker et al., 2017). Ross and colleagues (2013) found that a true collaboration is established between care providers and mothers who experienced trauma, when the mothers can make their own final health decisions based on a mutual relationship built on reward and positive health (Aaron, Criniti, Bonacquisti, & Geller, 2013). Potential rewards *might* include: (a) formal care providers implementing a TVIC program that benefits mothers who have experienced trauma; and (b) the possibility for mothers who have experienced trauma the ability to breastfeed successfully long-term. By introducing TVIC into formal care settings, Sperlich and colleagues (2017^a), believe that mothers and their infants have the potential to experience positive long-term health benefits from maintained breastfeeding practices (i.e., reduced risk of cancer in mothers and improved growth pattern in infants; Bernardo & Cesar, 2013).

Summary of Evidence

Mothers who are at-risk are at an increased risk of not maintaining breastfeeding practices (Cerulli et al., 2010; Dennis, 2002). Moreover, mothers who are at-risk often find it difficult to find postpartum services that meet their needs, account for their complex histories of violence, and are located in a safe space where they can access health care (Cisco, 2017). A potential approach to care that is appropriate for mothers who are at-risk and have experienced IPV is TVIC (Varcoe et al., 2016). To date, no studies have explored the impact of a TVIC breastfeeding intervention on breastfeeding practices among at-risk mothers. As such, purpose of this study was to explore at-risk mother's experiences of participating in a TVIC breastfeeding intervention on perceived formal and informal breastfeeding social support, and breastfeeding practices. In addition to TVIC, other supports including informal breastfeeding social support

were explored. Given TVIC encourages mothers to advocate for themselves, TVIC can also foster new and/or strengthen existing relationships in terms of both formal and informal support. This current study will explore both formal and informal breastfeeding social support. Two research questions were outlined in this study: (1.) What are the experiences of at-risk mothers participating in a TVIC breastfeeding intervention on perceived formal breastfeeding social support, and breastfeeding practices; (2.) What was the experience of mothers who are at-risk receiving informal breastfeeding social support while participating in a TVIC breastfeeding intervention?

Chapter 2: Methods

Study Design

Qualitative methods were used to generate participants' experiences through detail, depth, and communication (Patton, 2002) while trying to interpret a phenomenon in terms of the meaning participants bring to them (Denzin & Lincoln, 2000). Interpretive description (ID; Thorne, 2008) was selected as it affords the exploration, reality, and knowledge of complex phenomenon that are socially and culturally constructed (Thorne, 2008). Qualitatively, ID allows the researcher to understand phenomena, participants, and the interaction between phenomena and participants in their social and cultural environments (Thorne, 2008). Quantitatively, ID encourages the use of multiple quantitative data sources to inform the research questions under study (Thorne, 2008). This study utilized both qualitative and quantitative data to answer the research questions under study.

This was a cross-sectional, post intervention study utilizing the methodology of ID, and was a part on a larger intervention study titled EMBRACE (Engaging Mothers in a Breastfeeding Intervention to Promote Relational-Attachment, Child Health, and Empowerment). EMBRACE was approved by the host institution's Health Science Research Ethics Board (HSREB# 113464; see Appendix A) on May 28, 2019, and was funded by Women's Xchange.

Setting and Participants

The setting of this study took place in London, Ontario, a southwestern urban city with 511,000 residents (Macrotrends, n.d.), one birthing hospital, and on average 142,739 province-wide yearly births (Varella, 2021). To participate, eligible participants were breastfeeding mothers referred to the Postnatal Wellness Clinic (PWC+) in London, Ontario upon discharge from the London Health Sciences Center Obstetrics unit, with no primary health care provider

and in need of postpartum follow-up. Eligibility criteria was six-fold: (1) at least 18 years; (2) able to speak/read English; (3) breastfeeding their newborn; (4) at-risk operationalized as a lack of breastfeeding social support (assessed via: ‘do you feel supported by your family/friends/partner to breastfeed?’; ‘yes’ to this question needed to be selected to participate), and/or at least answering ‘yes’ to one of the following: being young (under the age of 25; Dennis, 2002), having low socioeconomic status assessed via: Low-Income Cut-Off Score (making less than \$31,000 yearly; Government of Canada, 2020), and/or having a history of intimate partner violence (Cerulli et al., 2010) assessed via: Abuse Assessment Screen; whereby, one ‘yes’ answer signified IPV exposure); (5) have access to a telephone and the internet; and (6) have participated in the larger EMBRACE study. Exclusion criteria included any physical health challenges that interfered with the ability to breastfeed (e.g., infants with complex care needs, mothers who experienced nipples issues), and/or joined the PWC+ after 12-weeks postpartum. As data was collected at 12-weeks postpartum, new mothers joining the program past 12-weeks did not qualify to participate.

Sample Size

Thorne (2008) highlights to justify a sample size and reach merit, a rationale that is consistent with the research question(s) must be applied. Following the guidance of Thorne (2008) who said that a smaller sample size allows for a more in-depth exploration of the phenomena to be explored, the research questions in this study are therefore specific to mothers who are at-risk, breastfeeding, and are patients at the PWC+. A small sample size, according to Thorne (2008), is anywhere from five participants to 12 participants; as such, this study aimed for a total of 10 participants to ensure breadth of data. The current sub-study had a sample size of ($N = 9$). Per the changing nature of COVID-19, the global pandemic impacted the ability for

recruitment and data collection to occur. During this time, mothers were no longer attending the clinic in-person for their scheduled visits with the PWC+ primary physician. The primary physician at the PWC+ was assigned to other duties during the start of the pandemic, which impacted new mothers being able to register as patients. All nine mothers were identified prior to the onset of the provincial ‘stay at home’ which was issued on April 8, 2021. Despite the smaller than desired sample size, the goal of saturation in data was reached. Thorne (2008) described that saturation is achieved when the repetition of themes can be reached, and there is “confidence that no new variations on the theory will emerge from additional data collection” (p. 98).

Recruitment

Participants were recruited from the larger EMBRACE study ($N = 9$; Appendix B). For this study, mothers were asked to participate in the EMBRACE questionnaire and one 60-to-90-minute semi-structured interview after their first visit at the PWC+ if they were deemed eligible. Mothers received a referral to this program post-birth from the Victoria Hospital Emergency Department and/or personally contacted the clinic via email, social media, or telephone themselves. Primarily, the clinic offers support regarding struggles associated with postpartum care or difficulty in breastfeeding (Thompson Medical Centre, 2020).

Description of the Intervention: Postnatal Wellness Clinic+

The TVIC breastfeeding intervention was implemented by a family health team consisting of family physicians, nurse practitioners, and nursing staff at the Thompson Medical Centre in London, Ontario at the PWC+ clinic. The intervention consisted of starting a dialogue centered around a mothers breastfeeding challenges and goals, the use of scales to measure infant feeding practices, breastfeeding education to build up a mothers breastfeeding skills based on

data gathered from intake scales, and access to a variety of resources (e.g., online mother-infant classes, tangible breastfeeding support and tools, etc.).

There are two accessible locations in London, offering referral programs to and from the Victoria Hospital Emergency Department (Thompson Medical Centre, 2020). The primary care physician and her team are trained in postnatal care and breastfeeding needs (Thompson Medical Centre, 2020). The PWC+ team aids in supporting mothers and their families within the first 72 hours post-birth up until months after an infant's birth, with follow-up appointments lasting anywhere from 15 to 60 minutes (Thompson Medical Centre, 2020). PWC+ ensures to remove barriers in mobilizing support by providing patients with patient-centered and tailored breastfeeding social support needed to meet their needs, through a range of services educating mothers on the major challenges associated during the postpartum period (Thompson Medical Centre, 2020; Negron, Martin, Almog, Balbierz, & Howell, 2013).

Data Collection

Data was collected online via Qualtrics (demographic information addressed in the following section) and one 60-to-90-minute semi-structured interview (see Appendix C for interview questions). Upon a mother's first arrival at the PWC+, the mother was presented with a tablet asking if there was an interest in participating in the EMBRACE study (Appendix D). If the mother agreed to participate, eligibility criteria (at-risk characteristics) were asked, and if the mother met the criteria, the letter of information and consent were presented on the screen. Once a mother was deemed eligible and had signed the letter of consent, contact information was sent to the study researchers on a password-protected file from the clinic physician. To ensure confidentiality, each participant was provided a number (e.g., 001) so their names or any distinguishing details would not be identifiable. Next, the study researchers contacted study

participants via email, asking if they would be interested in completing a breastfeeding questionnaire via Qualtrics at 12-weeks postpartum. Those who were interested received a personalized link to the baseline EMBRACE questionnaire. Mothers were asked to complete the questionnaire within a week of receiving it, as the links were programmed to expire. Once the researchers received the completed questionnaire, mothers were sent a follow-up email to participate in one 60-to-90-minute semi-structured interview either in person (at a private meeting room at a local London library) or by telephone. The interviews took place after the 12-week follow-up at the PWC+. Participants were only contacted for recruitment purposes via email upon completion of the baseline survey. Upon completion of the baseline EMBRACE survey, a five-dollar Amazon gift card honorarium was provided to the participants. To acknowledge their time and contribution to the study, an additional 20-dollar Visa gift card honorarium was provided to participants who completed the semi-structured interview.

The semi-structured interviews followed an ID approach (Thorne, 2008), allowing for the complexity of lived experiences of mothers and the larger social structures that influence their experiences to be explored (Harding, 1987; McCall, 2005). Participants' history, current situation, and social and economic injustices were acknowledged in a formal conversation with the co-principal investigators of the EMBRACE project prior to starting interviews. By doing so, it ensured that the mothers were not viewed upon as a homogenous group by the researcher of this study, but as mothers who used creative ways to ensure their well-being (McCall, 2005). The interviews were conducted at a mutual convenient time for the mother and researcher either in-person or via telephone, with the latter being required due to COVID-19. All interviews were audio-recorded and transcribed verbatim (additional information on this can be found in the data analysis section below).

Demographic Data and Scoring Protocols

Demographic data was broken down into three sections. The first section included information about the participants and utilized the following questions: Were you born in Canada?; How long have you lived in Canada?; What is your age in years?; What is your current marital status?; How many years have you been with your partner?; What is the highest level of education that you have completed?; What is your current employment status?; If unemployed, you are?; What is your estimated (best guess) yearly combined family income?; See Appendix E.

The second demographic section collected information about at-risk characteristics including the number of mothers who identified as young (under the age of 25), having low socioeconomic status (Low-Income Cut-Off Score), and had experienced or were experiencing IPV at the time of taking the questionnaire.² Histories of IPV were collected via The Abuse Assessment Screen (AAS; McFarlane & Parker, 1994), a previously validated scale (Cronbach's $\alpha = 0.56$) that assesses experience of IPV (Weiss, Ernst, Cham, & Nick, 2003; see Appendix F). The AAS included five main items pertaining to mothers' experience with physical, sexual, and/or emotional harm from an intimate partner. To complete this scale, a mother would answer with either 'yes' or 'no' (e.g., have you ever been emotionally or physically abused by your partner or someone important to you?). Yes, is scored as 'one' and no is scored as 'zero.' There are an additional six sub-items that ask participants to describe and/or provide additional detail to any or all the above 'yes' answered five main items (e.g., how many times has this occurred). A positive response to any item on the AAS scale denotes abuse.

² Lack of breastfeeding social support was acknowledged in the eligibility to participate in this study. Therefore, breastfeeding social support was not included during participant demographics.

The third demographic section requested detailed information about infants (seven closed-ended and 12 open-ended questions; see Appendix G), and their feeding practices via a condensed list of WHO/UNICEF breastfeeding indicators for breastfeeding mothers with children less than 24 months old (Appendix H). This questionnaire is part of section 4.2 in the ‘Guidelines and Tools for Monitoring Baby-Friendly Hospitals’ which launched in 2007 with the Baby-Friendly Hospital Initiative (WHO, 2009^b). The questionnaire includes five main items (e.g., What is the date of birth of the child that you breastfed/are breastfeeding?; Since this time yesterday, has your child been breastfed?; Is breast milk this child’s main source of food?; Since this time yesterday, did your child receive and of the following?; and Since this time yesterday, did your child drink anything from a bottle with a nipple/teat?) where participants answer with either ‘yes’ or ‘no’ or choose from a list of items (e.g., vitamins, mineral supplements, medicine). Yes, is scored as ‘one,’ no is scored as ‘zero,’ and chart items were scored one to nine with ‘other’ scored as 89, and ‘none’ scored as 99. There were two additional open-text questions asking for participants to specify and/or describe detail to any or all the above ‘yes’ items. In addition to the WHO/UNICEF scale, breastfeeding practices were also assessed loosely using one global question from the semi-structured interviews: (1) Are you currently breastfeeding?

Breastfeeding Social Support

Breastfeeding social support, defined as the assistance and protection given to others (Shumaker & Brownell, 1984; Wortman & Dunkel-Schetter, 1987; Dennis, 2002) through the acts of ‘caring’ ‘respecting’ ‘knowing’ ‘believing in’ and ‘sharing information’ (Coffman & Ray, 2001) was assessed using three question categories during semi-structured interviews: (1) perceptions of social support (Did you feel supported while breastfeeding/postpartum? By your

health care provider? By your partner? By your friends? By your family?); (2) facilitators/barriers to social support (What contributed to your feelings of support? What made you feel unsupported?); (3) and sufficiency of social support (How did the level of support you had impact your breastfeeding? How did the level of support you had impact your experience with health care services?). As this was a semi-structured interview, by nature, additional global questions through probing were raised to gain additional details including: Is there anything specific that your care team did that made you feel supported? (Britten, 1995).

Data Analysis

Qualitative findings (the generation of codes and themes) were analysed using NVivo to represent each participants' individual experiences using direct quotes, while descriptive statistics of the demographic data was computed using IBM SPSS Statistics (Version 27). After the interview was recorded, each interview was uploaded to the researcher's password protected computer and transcribed verbatim by a trained undergraduate student. Upon completion, the all the transcripts were reviewed while listening to the audio to ensure nothing was missed. All recorded interviews were deleted immediately off the handheld device and stored in a password-protected software owned by the host institution. Once completed, qualitative data analysis began according to ID (Patton, 1987; Thorne, 2008). This included reading all the transcripts and becoming immersed in the data (Glaser & Strauss, 1967; Strauss, 1987; Strauss & Corbin, 1998). Next, open inductive coding was used to identify broad-based themes (Thorne, 2008). Open coding consisted of identifying themes, line-by-line. Once open coding was complete, axial coding began wherein transcripts and identified codes were reviewed and coding of the relationship between themes was undertaken. Once the relationship between themes emerged, selective coding was completed wherein the identified themes and relationships

between themes were reviewed to generate the main findings, through the identification of the relevance of the themes to the existing literature. A secondary researcher independently followed the same process and once both researchers had identified the main findings, a meeting was held to review themes and determine if consensus was reached. If consensus could not be reached, then a third researcher was available to be brought in to achieve consensus, however consensus was reached with two researchers.

Data Trustworthiness and Authenticity

The researcher ensured that trustworthiness (per Guba & Lincoln, 1989 and Lincoln & Guba, 1985) and authenticity (per Thorne, 2008) was integrated into all aspects of the research process. Each element of trustworthiness (credibility, dependability, confirmability, and transferability) following authenticity will be discussed in turn.

Credibility. Credibility of the data was established using member-checking throughout the interviews, whereby the researcher reiterated participants answers by repeating responses and providing summaries to ensure the researcher had accurately comprehended what the participants wanted to convey (Guba & Lincoln, 1989). By asking the interviewee to confirm the interpretation, the accuracy of what the participant wanted to convey was captured.

Dependability. Dependability speaks to consistency and reproducibility of study findings (Lincoln & Guba, 1985). The use of an audit trail in the journal notes was implemented in this study (see Appendix I for a journal example; Koch, 1994), which provided evidence on the decisions and choices made regarding the use of ID, participant inclusion/exclusion, as well as data analysis.

Confirmability. Confirmability is defined as the degree to which the findings are shaped by the participants and not researcher bias (Lincoln & Guba, 1985). This was supported having

multiple coders independently analyze the data that later came together to compare findings and agree upon final themes. By doing so, it ensured biases were identified and removed. This was completed to ensure the participants' voice was driving the analysis, as quotes were used to substantiate all findings.

Transferability. Transferability is defined as findings that are applicable in other contexts (Lincoln & Guba, 1985) which is beneficial to other researchers who may wish to transfer findings from one study to their own subjects and situations (Koch, 1994). As such, as much detail as possible was provided, such that other researchers can make this judgement call themselves.

Authenticity. To maintain authenticity, it was important to reflect on any bias that could have influenced the study prior to conducting data. This helped to limit subjective interpretations that might have influenced the codes and themes that were generated (Thorne, 2008). The researcher practiced being sincere, genuine, and transparent in all aspects of participant communication and self-reflection through journaling. The practice of reflexivity and self-reflection occurred after each interview using journaling (Dodgson, 2019), whereby the researcher's personal ideas, thoughts, and feelings of the data set were written in a journal (Thorne, 2008). This aided in documenting the first-hand record of the research and analytical progress that mirrored a reflexive stance adopted by the methodology of ID (Thorne, 2008). Reflexivity was also promoted through ongoing bi-weekly discussions with the co-principal investigators on the EMBRACE study ensuring bias did not emerge in the study themes.

Chapter 3: Results

Demographics

Mothers

Nine mothers with an average age of 31.1 years, ranging from 27-36 years ($SD = 3.6$) participated in this study. Three mothers identified as Canadian or French Canadian ($n = 3$, 33.3%), with the remaining mothers having a variety of ethnic backgrounds (see Table 1). Mothers had been with their partners an average of 4.6 years ($SD = 4.0$), and the majority were married/common law/engaged ($n = 7$, 77.7%). The majority of mothers were not born in Canada ($n = 5$; 66.6%), and of these women, three lived in Canada for less than two years ($n = 3$, 33.3%). The yearly family net income was between \$20,000 and \$49,999 for just over half of the mothers ($n = 5$, 55.6%). Six mothers had a university degree ($n = 6$, 66.6%), and the majority were not employed, with one looking for paid work ($n = 1$, 11.1%), three were homemakers (or stay-at-home mother; $n = 3$, 33.3%), and one was unable to work due to disability ($n = 1$, 11.1%).

Table 1*Demographic Information of Women at 12-Weeks Postpartum (N = 9)*

Participant Characteristic	N	%	Mean	SD	Range
Age	--	--	31.1	3.6	27-36
Years with Partner	--	--	4.6	4.0	1-13
Ethnicity					
Canadian/French Canadian	3	33.3			
Indian	2	22.2			
Jamaican	1	11.1			
Afghan	1	11.1			
Brazilian & Japanese	1	11.1			
American & European	1	11.1			
Marital Status					
Married/common law/engaged	7	77.7			
Single	2	22.2			
Level of Study					
University graduate	3	33.3			
University undergraduate	3	33.3			
Less than high school	2	22.2			
Community college	1	11.1			
Employment					
Employed	4	44.4			
Homemaker	3	33.3			
Looking for paid work	1	11.1			
Disability	1	11.1			
Income					
\$20,000-\$49,999	5	55.6			
\$50,000-\$99,999	2	22.2			
Greater than \$100,000	1	11.1			
I prefer not to answer	1	11.1			
Born in Canada					
No	5	55.6			
Yes	4	44.4			
Lived in Canada (N = 5)					
1 year of less	2	40.0			
5 years of less	1	20.0			
10 years of less	1	20.0			
35 years of less	1	20.0			

At-Risk Characteristics

To be characterized as at-risk, mothers had to have lacked breastfeeding social support and/or at least one other characteristic such as young, of low socioeconomic status, and experiencing or have experienced IPV at the time of taking the questionnaire. All mothers in this study lacked breastfeeding social support, as identified via ‘do you feel supported by your family/friends/partner?’; however, no mothers were deemed young, as all were above the age of 25. Three mothers self-reported a family net income below the Canadian Low-Income-Cut-Off Score of \$31,060 (Government of Canada, 2020; $n = 3$, 33.3%), while four mothers experienced or were experiencing IPV ($n = 4$, 44.4%).

Infants

All infants were full term, born in the hospital, with no admission to the NICU. Five infants were female ($n = 5$, 55.6%) and the majority were delivered with an uncomplicated vaginal birth ($n = 6$; 66.7%; see Table 2). Infants gestational ages ranged from 38 to 42 weeks, with a mean of 39.7 weeks (SD = 1.2). All infants were breastfed at least once before 12-weeks. Seven infants were breastfed at birth in the hospital ($n = 7$, 77.7%). Seven infants were still breastfed at 12-weeks postpartum ($n = 7$, 77.7%) and of those, four were breastfed exclusively ($n = 4$, 44.4%), while three were receiving a combination of formula and breastmilk ($n = 3$, 33.3%). At 12-weeks postpartum six infants received vitamins/mineral supplements/medicine ($n = 6$, 66.6%), and six were drinking from a bottle with a nipple/teat ($n = 6$, 66.6%). Of the infants who drank out of a bottle, five were receiving formula ($n = 5$, 83.3%), and one was receiving breastmilk exclusively ($n = 1$, 16.7%).

Table 2*Demographic and Feeding Information of Infants at 12-Weeks Postpartum (N = 9)*

Participant Characteristic	N	%	Mean	SD	Range
Gestational Age (in weeks)	--	--	39.7	1.2	38-42
Gender					
Female	5	55.6			
Male	4	44.4			
Type of Delivery					
Uncomplicated vaginal	6	66.7			
Urgent or emergency c-section	2	22.2			
Planned c-section	1	11.1			
On-Set of Breastfeeding					
After birth in hospital	7	77.7			
A few days after birth	2	22.2			
Breastfeeding at 12-weeks					
Exclusive Breastmilk	4	44.4			
Formula and Breastmilk	3	33.3			
Only Formula	2	22.2			
Additions to Breastmilk at 12-weeks					
Vitamins/Minerals/Supplements/Medicine	6	66.6			
No additions	3	33.3			
Feeding with a Bottle at 12-weeks (N = 6)					
Formula	5	83.3			
Exclusive (breastmilk)	1	16.7			

Qualitative Findings

The findings of this study emerged in three main themes: context (previous experiences of health care), formal breastfeeding social support, and informal breastfeeding social support. In terms of context, mothers described previous experiences with health care that were woefully insufficient, describing a lack of access to primary care providers and concerns with medical literacy. This difficult history with health care was starkly contrasted with the formal experiences of accessing breastfeeding social support at the PWC+ clinic which used a TVIC approach. The use of the TVIC approach to breastfeeding support resulted in three sub-themes' namely, (1) emphasis on safety and trustworthiness; (2) opportunity for choice, collaboration, and connection; and (3) skill building to support coping and resilience. These three fundamental elements of TVIC were enacted in ways that influenced their breastfeeding. In addition to formal breastfeeding support, mothers underscored an additional three types of informal breastfeeding social support and their impact on breastfeeding including: (1) partners; (2) friends; and (3) extended family members. The context and both elements of formal and informal breastfeeding social support will be discussed in turn.

Previous Experiences of Health Care

The majority of mothers in this study did not have a primary health care provider or were without one during their pregnancy. One mother explained that her family physician was in a different city saying, “my family doctor at the time was in [different Ontario city]” (004). Another mother expressed she did not have a primary care provider in her area saying, “no, no we don't have a family doctor yet” (008). This lack of access to primary care providers was concerning for mothers as it limited their ability to form formal breastfeeding social supports and

raised concerns about comfort with her primary care providers. One mother underscored feeling anxious prior to arriving at her past health care appointments saying, “I know that [knowing the care providers] would have been an extra thing instead of me feeling frazzled as I went to the first appointment . . . it was nerve racking” (001). This nerve wracking experience was echoed by another mother who was a newcomer. She was concerned she would not understand the medical information being presented saying, “so, just, I just hope [health care provider] can really explain things simplistically” (004). These previous experiences with health care in terms of lack of access to a primary care provider, the inability to form formal relationships, and concern surrounding medical literacy contextualized how new mothers may be hesitant in their approach and interactions with health care and health care providers.

Formal Breastfeeding Support

Formal breastfeeding social support offered through the PWC+ used a TVIC approach. This approach emphasizes safety and trustworthiness, choice, collaboration and connection, and skill building to support coping and resilience. Interestingly in the analysis, these foundational elements of TVIC were enacted in ways that emerged as of paramount importance for mothers in their breastfeeding success.

Emphasis on Safety and Trustworthiness. Many mothers expressed that their relationship at the PWC+ was both safe and trusting. Many mothers identified that their interaction(s) with the PWC+ physician was different from previous experiences, with one mother saying, “[PWC+ physician] approach [to care] was different and positive compared to my previous experiences” (007) and another explaining, “well I think she’s one of those doctors that was really meant to be a doctor” (002). Mothers also felt the PWC+ physician was trustworthy

as she was also a mom, with one mother saying, “I think her being a mom, herself being a mum, she really listens” (002). Another mother expressing that the relationship that was created with the PWC+ physician meant that “you could rely on her; you could trust her with more things” (005). The safety and trustworthiness in relationships extended beyond just the physician at the PWC+ to include nurse practitioners and nursing staff, with one mother noting, “I just really like, the way that I was spoken to, I um, your staff, they were just so sweet, empathic, and caring” (003). The emphasis on feelings of safety in care and trustworthiness had meaningful impacts on communication. One mother underscored the impact on communication saying, “I just felt like it was a lot easier to communicate with her because of feeling like she was there to help me, not just look down on me as a professional” (001). This ease in communication was reiterated by another mother who felt that her relationship with the PWC+ physician introduced a “judgement-free zone” (007). This mother felt more open to communicate and ask questions knowing that the questions would be taken seriously, and she would have her questions answered, “I know that if I bring it [breastfeeding struggles] up, they [PWC+ physicians] would address my needs” (001).

It has been noted in the literature that mothers who are at-risk can sometimes respond to even substandard care in a positive manner, as they are just grateful to be receiving some kind of care (Wathen & Harris, 2007). However, mothers in this study identified the trusting relationship established with the PWC+ care team was in stark contrast to experiences with other health care providers. One mother explained she felt her interactions with a public health nurse were not up to par, as the nurse did not know current breastfeeding information, the mothers explained “[she was] not really up to date” (003). This experience was echoed by another mother who felt

frustrated her public health nurse was not well versed in the area of breastfeeding practices saying, “yeah, even the public health nurse, there was one point I was teaching her!” (004).

Choice, Collaboration, and Connection. Mothers underscored the importance of choice, collaboration, and connection as effective breastfeeding support. Mothers identified the importance of the PWC+ allowing them to make their own breastfeeding and health care choices. For example, one mother was presented with a variety of infant feeding techniques, and she choose the most comfortable one for her and the resultant impact was “[the PWC+ physician] made me feel okay and not ashamed to ask [for] anything, because I had options, you know?” (006). This ability to choose and openly ask for the kind of breastfeeding support needed had a positive impact, with one mother saying, “they [PWC+ clinic] was pretty wonderful overall in answering all the questions I had about my breastfeeding [choices] and they were helpful with that” (007). By providing mothers with a choice and the ability to ask for support, the PWC+ clinic fostered active collaboration creating a “very level playing field” (001). Through this approach, mothers are able to actively collaborate with the PWC+ and advocate for themselves to ensure their needs were met. The impact of this was that mothers realized they had a voice and could advocate for themselves with one mother saying, “the more I realize I do have a voice; I need to make sure that I ask for things” (001). This choice, collaboration, and connection ultimately put mothers at ease with one mother explaining (005):

Before going to my old appointments [care at a different city clinic], I used to write down any questions I had so I wasn’t going to forget once I get there . . . and sometimes through those questions, something new arises, but they

[PWC+ physicians] were always helpful at explaining and helping me through those things.

Skill Building to Support Coping and Resilience. Mothers emphasized the importance of having a physician that was focused on building breastfeeding skills to support breastfeeding coping and resilience. One mother emphasized that through being “closely monitored [during feeding times]” (002) by the PWC+, she was able to overcome several typical breastfeeding challenges (e.g., improper latching techniques, how to increase milk supply, etc.). One mother highlighted valuable practical skills taught by the PWC+ saying, “I was shown different positions to hold the baby to have relief from the pain and pressure to keep [breastfeeding]” (005). Echoing this, many mothers mentioned the value of being shown “how to hold the baby on the nursing pillow” (009) and “how to do proper latching [techniques]” (007). As a result of the skill building the PWC+ undertook with new mothers, they identified being better able to cope and were more resilient to continue breastfeeding, “because of the [formal] support I had. . . it made me feel okay [to continue breastfeeding] and I think that’s everything” (003). Resilience was also discussed by mothers in terms of their newfound team approach in feeding their infants and knowing that they were going to succeed with their breastfeeding goals, with one mother saying, “I was like okay, you know, we can do this. We are good, we’re a team. We’re going to do it!” (001).

Informal Breastfeeding Support

Informal breastfeeding social support was identified between three different groups of people: (1) partners; (2) friends; and (3) extended family members. In particular, mothers expressed that informal breastfeeding social support was most valuable when their partner

provided tangible and verbal support, when their friends provided verbal, tangible, and guidance to troubleshoot breastfeeding challenges, and extended family members, specifically other women, who used encouraging words to support mothers breastfeeding continuation, while allowing them to make their own breastfeeding choices.

Partner Support. Mothers underscored the impact tangible partner breastfeeding social support had on their breastfeeding. One mother said having her partner bottle feed their infant breastmilk, which allowed her to complete other tasks throughout the day. She said, “I wanted to have more flexibility to leave . . . [to] have freedom of coming and going as you please” (001). Challenges with feeding were common for mothers during night feedings. One mother explained how important it was to have her partner with her during those challenging times. She said (002):

During that first week, with everything being really hard and pretty much just crying through to get through the feeds, [my partner] stayed up with me and would try to kind of read and keep us both awake, but also try to distract me and get me water.

In addition to tangible support, mothers identified verbal support through encouraging words as a form of reassurance. One mother identified how her husband helped her to remain positive by reminding her that the baby’s health is the most important consideration when it comes to feeding their infant. She said (006):

Sometimes we plan a lot of stuff, but didn’t, didn’t work in that way so we have to restart everything and go in another direction and if the baby is healthy, it’s okay. If you’re healthy, it’s okay too, right. That helped me a lot too.

In contrast, four mothers did not feel supported by their partners, with one mother saying, “I never had any help, because [my partner] was working full time and I was working full time, and we had our six-year-old son like it was yeah, I don’t know, I didn’t feel help” (008).

Friend Support. Mothers highlighted the importance of having friends who provide emotional, tangible, and troubleshooting support during their breastfeeding journey. One mother recalled the impact of both emotional and tangible support from a friend saying (004):

I did have one of my husband's friends, their wife. My husband's friend's wife lives close by she dropped in one day. She has three kids of her own, so she did drop by, and I told her about my breastfeeding situation. She said “okay, well just, you know, start breastfeeding and we’ll see” and she observed and tried to fix the latch. And she put her finger at the baby’s mouth, and she was like you have to “lift her hand and make sure her lips are kind of rolled up and then whatever.” Then, physically move by positioning them one by one, so that was actually kind of helpful.

Another mother reported having friends, who were mothers, that provided information support and guidance in troubleshooting breastfeeding difficulties. saying, “I was a lucky person because I had a lot of friends that had babies recently before me, and so they helped me break out my frustrations about it [breastfeeding] before my baby was born” (006). This support was echoed by another mother explaining (007):

I’ve got a couple friends who are more experienced in it [breastfeeding] who I’m talking to, and getting help so, yeah, I think social networking,

and everything is probably the best means to getting the help when you don't really know what you're doing, like asking people who are more experienced.

Friends with previous experience also offered mothers encouraging words to continue breastfeeding. One mother identified how her friend was able to provide her with lactation resources and suggestions. She said (004):

She's like 'you're doing a good job, and now the other breast.' So yes, now I remember that, because she was super nice. She said, 'well, you can go on this [medication]' and she was very knowledgeable. She said, 'you know if this isn't working, I know some lactation consultants that, which were, like in another in another city or something like that'. But nonetheless it's just nice of her to know what to do and just troubleshoot my problem.

The shared experience of breastfeeding with friends offered emotional, tangible, and troubleshooting support for mothers.

Extended Family Support. Support from extended family, in particular, encouraging words from other women, aided in the mothers' breastfeeding continuation. Specifically, mothers highlighted feeling increased confidence to breastfeed when encouraged by family members who had previously breastfed. One mother explained how her family members breastfed and understood the benefits associated saying, "my family was more encouraging for breastfeeding because they had done it themselves and they knew the benefits of it" (001). Mothers also

identified the positive impact of having their own mothers encouraging their breastfeeding, with one mother saying (004):

She [participant's mother] came over one time and I got my mom and told her like, 'you have to just come see, like what the issue is. How comes she's not latching on,' and she just looked at me and was like, 'oh you have a flat nipple on that one,' or she said, 'don't worry just keep pushing'.

Another mother felt encouraged by her own mother when she took an active role and interest in her breastfeeding continuation, she felt supported, saying, "she [participant's mother] was definitely supportive of me breastfeeding . . . [she provided] facts, and the motivation, the push, the drive" (003). In addition, mothers reported that support from their own mothers was most helpful when it was provided in a way that bolstered their autonomy. One mother said she was given the choice by her own mother on how she wanted to breastfeed saying, "you can do the things [choices surrounding how to breastfeed her infant] but never, 'do this'. So that was really helpful, and I felt okay she's giving me a choice" (005).

For two mothers, support from extended family members while well intended contributed to challenges associated with breastfeeding. One mother explained (002):

She [mother-in-law] was the third [family member], and actually the last one to stay with us, which was also when [infant's] GERD had taken off and projectile vomiting and everything was just ugly. I was shot at this point, latching still was not working and we [infants' mother and partner] pretty much as you do with newborns, spend 90% of your day feeding or

at least trying to feed. As [the infant's feeding] sessions take forever, and I had gone upstairs because breastfeeding was so hard, and I just wanted to be alone. My husband was up with me and he went downstairs, and his mom was sitting down there just crying because she was all upset, she could not help and felt totally useless. She [mother-in-law] said that she might as well go home because she was useless . . . that was very not much what I needed in that moment.

Well-meaning but unsupportive comments increased pressure on mothers. One mother explained how her partner's family were controlling how and when the infant should be fed. She said (005):

Like my husband, luckily, he was very supportive through the breastfeeding process. Later on, I had to tell him, 'I'm feeling so much pressure. You have to step in and deal with everyone because it's putting so much pressure on me'. So, he was really helpful, and he had to get a hold of everybody and tell them to stop and let us just enjoy ourselves and our new baby.

Breastfeeding social support from extended family members was well received by the mothers when they were encouraging and supported mothers in making their own breastfeeding practice choices. However, at times well-intended support ended up undermining breastfeeding practices when it involved attempting to control breastfeeding schedules or became more so about the person trying to provide the support than the mother.

Chapter 4: Discussion

The purpose of this study was to explore at-risk mother's experiences of participating in a TVIC breastfeeding intervention on perceived formal and informal breastfeeding social support, and breastfeeding practices. In this study, many mothers revealed they did not have a health care provider they trusted or could access, prior to participating in the services received at the PWC+. Formal breastfeeding social supports included PWC+ physicians who provided mothers with breastfeeding social support that emphasized safety and trustworthiness, choice, collaboration, connection, and skill building to support coping and resilience. PWC+ physicians offered mothers verbal, tangible, and informational support to benefit their breastfeeding goals. Informal breastfeeding social supports included partners, friends, and extended family members. Partners provided mothers with verbal and tangible support while being actively present during infant feedings. Friends offered mothers words of encouragement and aided in troubleshooting breastfeeding challenges. Extended family members were helpful when they encouraged mothers to make their own breastfeeding choices and offered emotional support; however, there was a limit to the well-intended but unsolicited support needed before undermining a mother's own breastfeeding choices.

While this is the first study examining a TVIC breastfeeding intervention for mothers who are at-risk, there are nonetheless similarities on the impact of TIC in maternity care. In a literature review by Sperlich, Seng, Rowe, Fisher, Cuthbert, and Taylor (2017^b), investigating the use of TIC into maternity practice, the authors hypothesized that TVIC would be efficacious in improving breastfeeding outcomes for mothers; however, our study is the first to explore this assertion. Authors Sperlich and colleagues (2017^b) proposed introducing TVIC care into formal

care settings to promote maternal and infant health outcomes by supporting mothers' breastfeeding efforts. Moreover, in a theoretical exploration of TVIC, the potential benefits of breastfeeding social support were explored in a qualitative study by Ross and colleagues (2010) with 12 advanced practice nurses and 23-unit managers from four tertiary care hospitals. Participants identified potential benefits (e.g., a decrease in posttraumatic stress injury) that might arise from trauma-led interventions used in clinical care practice. The positive impact on maternal health, breastfeeding outcomes, and the acceptability of a TVIC breastfeeding intervention are in line with the findings from this current study. Mothers reported high acceptability of the intervention, explaining they were able to build a connection with their care provider, could easily communicate with them, felt safe to express their breastfeeding challenges, and had positive outcomes in terms of breastfeeding goals.

One of the components of TVIC is creating an environment focused on safety, as this helps to encourage and build trust between patient and provider, which mothers in this study underscored as being of paramount importance. The importance of trust building has been highlighted in a grounded theory study of 27 mothers in the United States with histories of IPV, by Battaglia and colleagues (2003). Participants identified means of building trust that would be acceptable for mothers including shared common experiences (Battaglia et al., 2003). In this current study, sharing common experiences was a strategy employed by the PWC+, as the physician shared she was also a mom. The impact of a trusting relationship founded on shared experiences, is that mothers were more open to express breastfeeding challenges with their formal care provider, a finding of both this current study and Battaglia and colleagues' study (2003).

According to participants in this current study, supporting mothers in advocating for their own breastfeeding choices was used by PWC+ physicians. Specifically, PWC+ physicians encouraged mothers to voice their own desires and needs surrounding breastfeeding practices and supports. Mothers in this study expressed the power of being able to choose, which is an integral aspect of TVIC. The ability to choose helped to alleviate a mother's breastfeeding challenges, as they were able to try several breastfeeding techniques and determine what worked best for them. While there is no existing literature surrounding choices for breastfeeding mothers who are at-risk, the importance of patients making their own health care choices is abundant in the broader health care literature. In a review article of 82 studies, Aaron, Criniti, Bonacquisti, and Geller (2013) found HIV-positive women in the United States who experienced childhood sexual trauma, showed improved health outcomes when trauma-sensitive practices were used. These practices encouraged patients to have the final say and control over their own health care decisions. The resultant impact included: (1) increased rates of care visits; (2) partnerships forming between patient and provider; and (3) improved overall physical and mental health (Aaron et al., 2013). The importance of patients making their own health care choices was echoed in a qualitative study of 52 seven-month postpartum first-time mothers who experienced childhood trauma by Muzik, Ads, Bonham, Rosenblum, Broderick, and Kirk (2013). The authors found mothers were more likely to reach out for breastfeeding social support when health care providers advocated for the importance of patient autonomy and patient decision-making (Muzik, Ads, Bonham, Rosenblum, Broderick, & Kirk 2013). In a concept analysis on maternal autonomy and breastfeeding, Hirani and Olson (2016) found that when formal care providers advocated for patient autonomy in the context of breastfeeding, improvements were achieved in maternal breastfeeding decision-making (duration and exclusivity) and healthcare-seeking

behaviour, When women and mothers have control over their own health care decisions, evidence suggests that they are more likely to reach out and gain access to needed supports (Aaron et al., 2013; Muzik et al., 2013). This evidence suggests that adopting the TVIC principle of choice, collaboration, and connection might be an intermediate step in the pathway between health behaviour decision making and adherence to desired health outcomes.

The importance of skill building and resilience to cope with breastfeeding challenges was noted by mothers in this study. Mothers felt enabled to persevere past their breastfeeding challenges when PWC+ physicians incorporated practical breastfeeding skills during one-on-one appointments. The importance of practical skills related to breastfeeding practices has been underscored by Theodorah and Mc'Deline's (2021) qualitative study exploring the impact of formal breastfeeding social support among 10 first-time postpartum mothers. The authors found mothers credited practical skill building taught by formal breastfeeding social supports to their continued breastfeeding practices. Mothers underscored the importance of being shown how to hold their infant when breastfeeding as instrumental to being resilient in meeting their breastfeeding goals (Theodorah & Mc'Deline, 2021). The importance of one-on-one skill building sessions with a formal care provider to increase coping with health care challenges and support resilience has also been demonstrated in a phenomenological study by Wilson, Cooper, Plunk, and Severson (2012) who focused on 17 post-breastfeeding mothers who experienced and overcome breastfeeding challenges. The authors found that mothers who sought out and spent time with a formal breastfeeding social support (e.g., lactation consultant) when breastfeeding challenges arose, reported being more tenacious with problem solving and seeking out solutions when previous attempts failed. This ability to overcome challenges and gain supports increased a

mother's confidence, demonstrating the connection between skill building and resilience related to overcoming breastfeeding challenges.

Among informal breastfeeding social support for mothers in this study, partner support through being actively present during feedings was influential in a mother's decision to continue breastfeeding. Mothers reported partner support reduced barriers, including becoming overwhelmed by the task of breastfeeding itself. This finding aligns with Mannion, Hobbs, McDonald, and Tough's (2013) descriptive, cross-sectional study of 76 recent or current Canadian breastfeeding mothers, who reported feeling more confident to breastfeed and to continue breastfeeding when their partner was actively involved in breastfeeding activities ($p < 0.019$). Partners' acts of transporting the infant to the mother, assisting with latching, and bringing beverages or food while feeding, were all effective for promoting feelings of breastfeeding social support (Mannion, Hobbs, McDonald, & Tough, 2013).

Beyond tangible support from a partner, verbal support in the form of encouraging words was also important to mothers in this study. In response to encouraging words from their partner, mothers described feeling reassured and remained positive even when breastfeeding challenges arose. Similar findings were described by Davidson and Ollerton (2020) in their integrative review of six articles exploring breastfeeding outcomes as a result of partner behaviour. In this review, four studies found mothers benefitted when their partners encouraged them through words of appreciation and when they were overtly responsive to the challenges being experienced by the mother (i.e., when they responded with providing help, encouragement, and breastfeeding knowledge; Davidson & Ollerton, 2020). Conversely, adverse effects on breastfeeding practices can result from partners who are not supportive. Mannion and colleagues (2013) found that a mother was more likely to give up on their breastfeeding practices when their

partner was not supportive. The impact and lack of partner support was noted by four mothers in this current study, with one mother expressing how her partner was not actively present during feedings and provided minimal to no verbal support. This lack of breastfeeding social support exacerbated the mothers' breastfeeding challenges and left them feeling like they had no support.

Friends can be an effective source of informal breastfeeding social support. Mothers in this study expressed that the emotional support they received from friends was important. In particular, having a friend present and offering words of encouragement was especially beneficial to continuing their breastfeeding practices. A metasynthesis of 31 studies by Schmied and colleagues (2010) reiterated these findings, as authors found that mothers felt the most supported when friends were consistently there for them and showed empathy when breastfeeding challenges arose. This metasynthesis revealed emotional support as a key predictor to continued breastfeeding practices (Schmied et al., 2010). The importance of having a supportive friend present during infant feedings was similar to the results of this current study, which found the presence of friends - when they provided tangible support such as latching techniques - resulted in mothers feeling they had the support needed to continue past their breastfeeding challenges. Breastfeeding social support groups whose members offered tangible support in the form of product recommendations and latching techniques, were also found to benefit 51 breastfeeding mothers in the United Kingdom, as highlighted in a qualitative study by Fox, McMullen, and Newborn (2015). The authors reported that mothers expressed feeling more confident to breastfeed when both around other mothers who breastfeed their infant(s) and when encouraged by other mothers to continue despite breastfeeding challenges (Fox, McMullen, & Newborn, 2015). The importance of mothers having friends who can provide them with breastfeeding social support is clear.

Extended family members, and in particular having a parent who breastfed and offered words of encouragement, were found to be supportive for mothers' breastfeeding practices. Mothers discussed the impact that encouraging words had on their confidence to breastfeed, as their own mothers were often a source of troubleshooting breastfeeding challenges. This is similar to the findings by Kornides and Kitsantas (2013) who conducted a longitudinal study of 3033 mother-infant pairs. The authors reported that mothers were 8.21 times more likely to continue breastfeeding when their own families supported breastfeeding. However, not all mothers in the current study found extended family members to be supportive; two mothers described breastfeeding challenges their mothers-in-law created in terms of how and when the infant should be fed. Breastfeeding difficulties associated with extended family members have been reported previously in the literature. Teodorah and Mc'Deline (2021) found mothers reported extended family members consistently made comments that would hinder the ability for them to continue their breastfeeding practices, including what feeding method the mother should be using. This underscores that the right type of support, including words of encouragement, can lead mothers to feel enabled to continue their breastfeeding in the face of challenges, whereas negative comments can act as an impediment to breastfeeding.

In the context of the larger body of available evidence, the findings from this study lead to recommendations regarding formal and informal breastfeeding social support for mothers who are at-risk (see Table 3). While mothers who are at-risk are at a heightened chance of not maintaining breastfeeding practices, these recommendations can aid in alleviating breastfeeding challenges to support mothers in reaching their breastfeeding goals.

Table 3

Recommendations to Facilitate Breastfeeding Social Support in Breastfeeding Mothers who are At-Risk.

Formal: Physicians, Nurses, and Lactation Consultants

1. Encourage formal breastfeeding social supports to implement TVIC principles into practice.
2. Allow mothers to choose their own breastfeeding decisions and feeding techniques without judgement.
3. Build breastfeeding social support relationships through shared discussion, breastfeeding experiences, and challenges.
4. Prioritize skill building and learning opportunities during breastfeeding, such as teaching mothers proper latching techniques.

Informal: Partners, Friends, and Extended Family Members

1. Encourage partners and friends to offer mothers tangible breastfeeding social support. This includes partners being actively present during breastfeeding sessions and friends providing knowledgeable troubleshooting strategies when breastfeeding challenges arise.
 2. Encourage partners, friends, and extended family members to offer mothers verbal breastfeeding social support. This includes the use of encouraging words to support the mothers when breastfeeding challenges arise.
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Limitations and Future Directions

This study must be considered within the context of its limitations. First, the COVID-19 global pandemic created both recruitment and intervention fidelity challenges. A fast pivot in healthcare occurred in March 2020 due to the COVID-19 global pandemic, impacting the fidelity of program delivery at the PWC+ (i.e., postpartum classes were cancelled and appointment times with PWC+ physicians were limited and switched to an online format). This resulted in fewer mothers participating in this study than intended, as the intervention changed partway through recruitment and data collection. Meaning, the duration of appointment times and one-on-one access with the primary physician at the PWC+ was limited to new participants. Future studies should aim to replicate findings in non-pandemic times when intervention fidelity can be assured. Additionally, only three interviews were completed in-person, the remainder occurred via telephone (due to the COVID-19 global pandemic). Therefore, the ability to collect observational data occurring face-to-face might have been missed. This was considered during data-analysis, as emotional triggers, body language, and non-verbal physical cues might have provided additional contextual information to the experiences of breastfeeding social support, and particularly in the mothers who experienced or were experiencing IPV. Future studies should consider alternative methods of interviewing via online platforms (e.g., in-person distanced visits and/or video chatting platforms). While all mothers in this study met the eligibility criteria, the sample is not a reflection of all at-risk criteria. Specifically, no young mothers participated. Recruitment in future studies should consider purposive sampling to ensure participants are representative of all at-risk criteria among mothers. Moreover, greater diversity of the study participants would have been advantageous. Future studies should consider recruitment strategies to include a more diverse population from Indigenous populations and people of colour. This

was a cross-sectional study with no control group, as such causation cannot be inferred. Future studies should consider adding a control group to allow for casual conclusions to be drawn surrounding the impact of using a TVIC breastfeeding intervention on breastfeeding practices. Lastly, the methodology of ID is qualitative by nature; however, as limited studies currently exist exploring the purpose of this study, contextual and background data was primarily pulled from quantitative studies. Further studies should consider expanding literature searches using multiple keywords and databases.

Chapter 5: Conclusion

While the individual components of TVIC such as TIC (Sperlich et al., 2017^a) have been used with success in previous studies to support breastfeeding practices in mothers who have experienced trauma, this study is the first time TVIC in its totality has been used to support breastfeeding for mothers who are at-risk. The purpose of this study was to explore at-risk mother's experiences of participating in a TVIC breastfeeding intervention on perceived formal and informal breastfeeding social support, and breastfeeding practices. Overall, this TVIC breastfeeding social support intervention showed promise for mothers who are at-risk, as they reported positive experiences with both the structure of care (patient-centered) and type of verbal, tangible, and informational breastfeeding social support received from their formal providers. In relation to informal supports, partners, friends, and extended family members also offered mothers with verbal, tangible (troubleshooting strategies), and emotional support to overcome their breastfeeding challenges.

Mothers in this study found the TVIC breastfeeding intervention was delivered in a safe environment that helped them to trust their PWC+ formal care physician. Building trust with a primary care provider was important for mothers in this study, as previous experiences with other primary care providers were not successful, leaving mothers feeling unsupported. PWC+ physicians encouraged a patient-provider relationship that was open to topics and resources surrounding breastfeeding choice, communication, and collaboration. Mothers felt they were able to relate to the PWC+ physician, as she was also a mom and could easily resonate with the challenges associated with breastfeeding (e.g., difficulties with latching). The breastfeeding challenges experienced were resolved through skill building approaches such as positioning of

the infant to better latch, which promoted a mother's resilience and maintenance to continue one's breastfeeding goals. Mothers reported formal breastfeeding social supports as successfully meeting their breastfeeding needs, due to PWC+ physicians providing mothers with tangible, verbal, and informational support.

Continued breastfeeding goals were also associated with a mother's informal breastfeeding social supports from their partners, friends, and/or extended family members. Partners who were actively present during infant feedings and offered words of encouragement when breastfeeding challenges arose, were most supportive. Friends who previously breastfed, offered words of encouragement, and offered tangible/troubleshooting strategies to support breastfeeding challenges, were highly praised by mothers in this study. Extended family members, and in particular, a breastfeeding mother's own mother who previously breastfed, and extended family members who encouraged mothers to make their own breastfeeding choices, supported mothers in continuing their breastfeeding goals. Overall, informal breastfeeding social supports provided mothers with verbal, tangible (troubleshooting strategies), and emotional support. When informal social support was provided in tandem with formal breastfeeding social support, mothers were better situated to advocate for their needs when faced with breastfeed difficulties.

As mothers who are considered at-risk due to a lack of breastfeeding social support, and/or being young, having low socioeconomic status, and have experienced and/or are experiencing IPV are more likely to cease breastfeeding (Dennis, 2002; Ford-Gilboe et al., 2020), it is imperative that interventions are developed and tested to specifically support this population. Additionally, this population of mothers who are at-risk are often limited to the

amount of breastfeeding social support they receive during their postpartum period (Cisco, 2017). Therefore, it is of utmost importance for mothers who are at-risk to have consistent breastfeeding social support from both their formal and informal breastfeeding social support groups. The TVIC breastfeeding social support intervention undertaken in this study shows promise in not only meeting the needs of mothers via the breastfeeding social support received, but also in helping mothers to maintain their breastfeeding practices while promoting feelings of resilience when breastfeeding challenges arise.

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Appendix A – Ethics Approval: EMBRACE



Date: 28 May 2019

To: Dr. Kimberley Jackson

Project ID: 113464

Study Title: The impact of early postpartum care by a primary care team among breastfeeding women.

Application Type: HSREB Initial Application

Review Type: Delegated

Full Board Reporting Date: June 18, 2019

Date Approval Issued: 28/May/2019

REB Approval Expiry Date: 28/May/2020

Dear Dr. Kimberley Jackson

The Western University Health Science Research Ethics Board (HSREB) has reviewed and approved the above mentioned study as described in the WREM application form, as of the HSREB Initial Approval Date noted above. This research study is to be conducted by the investigator noted above. All other required institutional approvals must also be obtained prior to the conduct of the study.

Documents Approved:

Document Name	Document Type	Document Date
EMBRACE Complete Protocol Draft 2019-05-18	Protocol	Received May 24, 2019
EMBRACE Debriefing Form 2019-03-05	Debriefing Script	2019/03/05
EMBRACE Eligibility Criteria_Revised_May 8 2019	Other Data Collection Instruments	08/May/2019
EMBRACE Letter of Information and Consent 2019-05-18	Written Consent/Assent	03/May/2019
EMBRACE Recruitment and Follow Up Scripts 2019-05-18	Other Data Collection Instruments	18/May/2019
EMBRACE Recruitment Poster 2019-05-15	Other Data Collection Instruments	15/May/2019
EMBRACE Safety Plan Protocol 2019-03-05	Other Data Collection Instruments	
EMBRACE Semi-Structured Interview Guide 2019-03-14	Interview Guide	14/Mar/2019
EMBRACE Questionnaire_revised_May 8 2019	Online Survey	08/May/2019

Documents Acknowledged:

Document Name	Document Type	Document Date
PWC Letter of Support for EMBRACE	Letter Document	01/Dec/2018

No deviations from, or changes to, the protocol or WREM application should be initiated without prior written approval of an appropriate amendment from Western HSREB, except when necessary to eliminate immediate hazard(s) to study participants or when the change(s) involves only administrative or logistical aspects of the trial.

REB members involved in the research project do not participate in the review, discussion or decision.

The Western University HSREB operates in compliance with, and is constituted in accordance with, the requirements of the TriCouncil Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2); the International Conference on Harmonisation Good Clinical Practice Consolidated Guideline (ICH GCP); Part C, Division 5 of the Food and Drug Regulations; Part 4 of the Natural Health Products Regulations; Part 3 of the Medical Devices Regulations and the provisions of the Ontario Personal Health Information Protection Act (PHIPA 2004) and its applicable regulations. The HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000940.

Please do not hesitate to contact us if you have any questions.

Sincerely,

[Redacted Signature]

Appendix B - Recruitment and Eligibility Script (Email)

**Recruitment and Eligibility Script (Email)****EMBRACE****Engaging Marginalized Mothers in a Breastfeeding Intervention to Promote Relational-Attachment, Child Health, and Empowerment**

Invitation to Participate Email

Subject Line: Eligible to Participate in EMBRACE Study

Dear (insert name),

Thank you for your reply. You are eligible to participate in the EMBRACE research study. I have attached the letter of information outlining the study procedures, benefits to participation, and potential risks. To summarize, participation in this study involves: 1) Completing a demographic questionnaire and a pre-survey regarding you, your pregnancy, your experiences at the Postnatal Wellness Clinic, your breastfeeding experiences, and your overall health and well-being (physical and emotional) (approximately 10 minutes of your time) 2) Completing a second survey 12-weeks later covering similar topics and 3) Optionally completing a one-on-one interviews will last in total between 1 and 1.5 hours and will include questions about your experience at the Postnatal Wellness Clinic, your postpartum experience, your physical and emotional health, and your breastfeeding experiences (approximately 60 to 90 minutes of your time).

You are welcome to withdraw from the study at any time, and participation in this study will in no way effect your relationship with Western University or the Postnatal Wellness Clinic. If you have any questions about the study procedures, please do not hesitate to contact us by phone or email. At this point in time, there are two options: 1) we can arrange a time to discuss the study if you have any questions; or 2) if the letter of information has provided you with sufficient information to answer your questions about participation in this study and you do not have any additional questions, you can complete the consent form (the last page of the letter of information) and return it to me. Once you have completed the consent process (either over email or via the telephone), an email link to the first survey will be provided.

Thank you,



Appendix C – Semi-Structured Interview Guide Questions

1. How would you describe your experience in finding a health care team while you were postpartum?
 - a. What obstacles did you face in getting the care you needed?
 - b. What created those obstacles?
 - c. What would remove those obstacles?
2. What was helpful to you in terms of accessing health care while breastfeeding?
3. Did you feel supported while breastfeeding/postpartum?
 - a. By your partner?
 - b. By your family?
 - c. By your friends?
 - d. By your health care providers?
4. What contributed to your feelings of support?
 - a. What made you feel unsupported?
5. How did the level of support you had impact your breastfeeding?
 - a. How did the level of support you had impact your experience with health care services?

Appendix D – Recruitment

When a participant arrived to the PWC+, they were provided with a tablet where they were directed to input their health information in a form for health care provider use. Following this, the EMBRACE letter of information and baseline questionnaire was prompted. Once completed, the sub-study form outlining the information of the study's purpose was prompted. Participants could either select 'yes I am interested' or 'no I am not interest'. If 'no I am not interested' was selected, as normal, they were prompted to return the tablet back to the receptionist. If 'yes I am interested' was selected, a secondary page outlining eligibility criterion loaded (see Appendix J). Once completed, participants would either receive 'thanks for your interest in the study, but unfortunately you do not meet the eligibility requirements' and would be promoted to return the tablet back to the receptionist or 'you are eligible to participate, here is more information about the study and the letter of information and consent.' Once participants read the letter of information and consent (see Appendix K), they could either select 'yes I want to participate' or 'no I do not want to participate.' If they selected 'no I do not want to participate,' as normal, they were prompted to return the tablet to the receptionist. If 'yes I want to participate' was selected, an additional consent form loaded that requested safe contact information (see Appendix L). Once the form was completed, a final screen reading 'thank you for completing the first questionnaire. Please enter the email address you would like the \$5 Amazon gift care sent to. The gift card will be sent to your email address in the next 14 days'. Once completed, as normal, the tablet was returned to the receptionist. Subsequently, contact information was sent to the research team via a secured google documents account uploaded by

the main physician at the PWC+. The research team conducted follow-ups at 12-weeks postpartum using the information provided.

Appendix E - Information about Participant

This questionnaire is intended for women of different backgrounds. What is/are the ethnic or cultural backgrounds(s) you identify with most? (For example: Canadian, English, French, Chinese, East Indian, Italian, German, Scottish, Irish, Cree, Mi'kmaq, Salish, Metis, Inuit, Filipino, Dutch, Ukrainian, Polish, Portuguese, Greek, Korean, Vietnamese, Jamaican, Jewish, Lebanese, Salvadoran, Solami, Colombian, etc.) Please specify as many origins as you like:

Were you born in Canada?

Yes

No

Display This Question:

If Were you born in Canada? = No

How long have you lived in Canada? (*please specify years/months,etc.)

What is your age in years?

What is your current marital status?

1. Single
2. Married/Common Law/Engaged
3. Divorced/Separated
4. Widowed
5. I prefer not to answer

About how many years have you been with, or were you with, your partner? You may use half years (for example: 2.5 years).

What is the highest level of education that you have completed?

6. Less than high school
7. High school completed
8. Community college and/or journeyman apprenticeship completed
9. University undergraduate degree completed
10. University graduate degree or higher completed
11. I prefer not to answer
12. Other

Display This Question:

If What is the highest level of education that you have completed? = Other

If other, please specify:

What is your current employment status?

13. Employed full-time
14. Employed part-time
15. Unemployed
16. Casual
17. Seasonal
18. I prefer not to answer
19. Other

Display This Question:

If What is your current employment status? = Other

If other, please specify:

If unemployed, are you: (please select one)

- 20. Unemployed but looking for paid work
- 21. A homemaker (or stay-at-home mother)
- 22. On maternity or parental leave
- 23. On sick leave
- 24. Disabled or unable to work due to health reasons
- 25. A student
- 26. I prefer not to answer
- 27. Other

Display This Question:

If unemployed, are you: (please select one) = Other

If other, please specify:

What is your estimated (best guess) yearly combined family income (after taxes are deducted), including employment, government, government cheques, child support, and other sources of income?

- 28. Less than \$19,999
- 29. \$20,000-\$49,999
- 30. \$50,000-\$99,999
- 31. Greater than \$100,000
- 32. I prefer not to answer

Appendix F - Abuse Assessment Screen

Have you ever been emotionally or physically abused by your partner or someone important to you?

Yes

No

Within the last year, have you been hit, slapped, kicked, or otherwise physically hurt by someone?

Yes

No

Display This Question:

If Within the last year, have you been hit, slapped, kicked, or otherwise physically hurt by someone? = Yes

To the above question, if yes, by whom?:

Husband

Ex-husband

Boyfriend

Stranger

Other

Display This Question:

If To the above question, if yes, by whom?: = Husband

And To the above question, if yes, by whom?: = Ex-husband

And To the above question, if yes, by whom?: = Boyfriend

And To the above question, if yes, by whom?: = Stranger

And To the above question, if yes, by whom?: = Other

How many times has this occurred?

Since you have been pregnant, have you ever been hit, slapped, kicked or otherwise physically hurt by someone?

Yes

No

Display This Question:

If Since you have been pregnant, have you ever been hit, slapped, kicked or otherwise physically hur... = Yes

To the above question, if yes, by whom?:

Husband

Ex-husband

Boyfriend

Stranger

Other

Display This Question:

If To the above question, if yes, by whom?: = Husband

And To the above question, if yes, by whom?: = Ex-husband

And To the above question, if yes, by whom?: = Boyfriend

And To the above question, if yes, by whom?: = Stranger

And To the above question, if yes, by whom?: = Other

How many times has this occurred?

Display This Question:

If How many times has this occurred? Text Response Is Displayed

Indicate the area of injury (i.e arm, leg, head, etc.):

Within the past year, has anyone forced you to have sexual activities?

Yes

No

Display This Question:

If Within the past year, has anyone forced you to have sexual activities? = Yes

If yes, by whom?:

Husband

Ex-husband

Boyfriend

Stranger

Other

Are you afraid of your partner or anyone listed above?

Yes

No

Appendix G - Information about Infant

What is your baby's date of birth?

Day _____
Month _____
Year _____

Was your baby born:

Full term (more than 38 week)
Pre term (less than 38 weeks)

What was the gestational age of your baby at birth?

Was your baby admitted to the NICU (Neo-Natal Intensive Care Unit)?

Yes
No

Display This Question:

If Was your baby admitted to the NICU (Neo-Natal Intensive Care Unit)? = Yes

If your baby was admitted to the NICU, can you please describe when your baby was admitted?

Display This Question:

If Your baby was admitted to the NICU, can you please describe when your baby was admitted? Text Response Is Displayed

How long was your baby admitted in the NICU (in days)?

What type of delivery did you have?

- Uncomplicated vaginal delivery
- Vaginal delivery with forceps or vacuum
- Planned C-section
- Urgent or emergency C-section

What is the gender of your baby?

What was your baby's birth weight in:

Pounds _____
Ounces _____

Do you breastfeed your baby?

- Yes
- No

When did you first breastfeed your baby?

Are you currently breastfeeding your baby?

- Yes
- No

Display This Question:

If Are you currently breastfeeding your baby? = No

How long did you breastfeed your baby (in weeks)?

Are you breastfeeding your baby exclusively?

Yes
No

Display This Question:

If Are you breastfeeding your baby exclusively? = Yes

To the above question, if yes how often do you breastfeed?

Do you supplement breastmilk with formula?

Yes
No

Display This Question:

If Do you supplement breastmilk with formula? = Yes

To the above question, if yes how often?

Is your baby still breastfed?

Display This Question:

If If Is your baby still breastfed? Text Response Is Displayed

duration If yes to the above question, how long has your baby been breastfeeding (in weeks)?

Appendix H - WHO/UNICEF Breastfeeding Indicators for Mother

Breastfeeding indicators for each child less than 24 months old

What is the date of birth of the child that you breastfed/are breastfeeding?

Day _____
Month _____
Year _____

Since this time yesterday, has your child been breastfed?

- Yes
No

Skip To: WHO04 If Since this time yesterday, has your child been breastfed? = No

Is breast milk this child's main source of food?

1. Yes
2. No

Since this time yesterday, did your child receive any of the following:

- Vitamins, mineral supplements, medicine
- Plain water
- Sweetened or flavored water
- Fruit juice
- Tea or infusion
- Infant formula

- Tinned, powered or fresh milk
- Solid or semi-solid food
- Oral re-hydration salts (ORS) solution
- Other
- None

Display This Question:

If Since this time yesterday, did your child receive any of the following: = Other

Please specify:

Since this time yesterday, did your child drink anything from a bottle with a nipple/teat?

3. Yes
4. No

Display This Question:

If Since this time yesterday, did your child drink anything from a bottle with a nipple/teat? = Yes

Please describe:

Appendix I - Journal Example

Participant 001- Journal entry post interview

- Stepping out of work (no longer could manage work, childcare, and feeding infant)
- Could feed easily, no troubles with latching. Her fifth child.
- Very supportive partner: she trusted and respected him. He was standing by all her decisions to breastfeed their infant and to continue as long as she could.
- Values respect from all her social supports; should be a team effort not mom and baby only.
 - o PWC+ made her feel comfortable and provided encouraging words. She was able to discuss how she was personally doing as a mom. The attention was shifted equally (50/50) to mom and infant. Left the clinic feeling happy and confident.
- Demonstrated great confidence and BSE in regard to her ability to feed her infant.
- Her mother was breastfed as a child, and this continued to be passed down (teachings) to herself and her siblings.

Participant 003- Journal entry post interview

- Received a house call postpartum by a RN; the nurse outlined that the PWC+ is not real and she should cancel her appointment. She did; later found out that the program would have benefitted her and her breastfeeding shortly after giving birth. Was confused that the program is not being discussed to formal supports city wide.
- Great emphasis on education; wanting more supports in this area. Mentioned for the PWC+ website to be updated to provide more support/tips.
- Issues with COVID-19 starting to be shown in interviews.
- Called the clinic to book appointments; easy process and mentioned staff were very warm and welcoming.
- Had support from her partner and family.
- Troubles with breastfeeding; needed to start using formula (limited milk production). This was a letdown for her- decrease in confidence and BSE.

Note. Two examples are demonstrated, as changes with the COVID-19 pandemic occurred, it altered how interviews were being conducted (e.g., telephone).

Appendix J - Eligibility Criteria

**Eligibility Criteria****EMBRACE****Engaging Mothers in a Breastfeeding Intervention to Promote Relational-Attachment, Child Health, and Empowerment****Official Study Title**

The impact of early postpartum care by a primary care team among at-risk breastfeeding women.

Name of Principal Investigators

[REDACTED]

Name of Co-Investigators

[REDACTED]

Who is Eligible to Take Part

A woman who:

- 1) Can read and speak in English
- 2) Is breastfeeding their newborn
- 3) Is 18 years of age or older
- 4) Has access the internet and a telephone
- 5) Has limited social support AND/OR Has a family income of less than \$31,061 per year AND/OR Has experienced intimate partner violence at some point during her life



Appendix K - Letter of Information and Consent Larger EMBRACE Study:
Quantitative

Letter of Information and Consent

EMBRACE

Engaging Mothers in a Breastfeeding Intervention to Promote Relational-Attachment, Child Health, and Empowerment

Official Study Title

The impact of early postpartum care by a primary care team among at-risk breastfeeding women.

Name of Principal Investigators

[REDACTED]

Name of Co-Investigators

[REDACTED]

Other Team Members

[REDACTED]

Funding Agency

This study is funded through the Faculty Research Development Fund at Western University.

Conflict of Interest

Although we do not foresee any conflicts of interest arising from this study, we wish to disclose that the intervention will be provided by [REDACTED] is a physician and the director of the T [REDACTED], the site from which we are recruiting participants and is also a member of the research team.

Background

We invite you to take part in this research study looking at the experience of at-risk postpartum women who are breastfeeding their infants. We are interested in hearing about your experiences in attending the Postnatal Wellness Clinic and particularly with how they relate to your thoughts and feelings around breastfeeding and the postpartum period. Approximately 50 women will take part in this study.

Who is Eligible to Take Part?

A woman who:

- 6) Can read and speak in English
- 7) Is breastfeeding their newborn
- 8) Is 18 years of age or older
- 9) Has access the internet and a telephone
- 10) Has limited social support OR Has a family income of less than \$31,061 per year OR Has experienced intimate partner violence at some point during her life

What Taking Part Means

Taking part in this study first involves answering some questions about you and your baby both today as well as 12-weeks from now. If you choose to participate, we will ask you to answer online questions, using this tablet, that will take less than 10 minutes. Then in 12-weeks' time, we will contact you and ask you to complete another online questionnaire that can be done from the comfort of your own home and will take at most 30 minutes. The questionnaire(s) will ask questions about you, your pregnancy, your experiences at the Postnatal Wellness Clinic, your breastfeeding experiences, and your overall health and well-being (physical and emotional). You will receive an honorarium for each questionnaire you complete, which will be emailed to you in the form of an Amazon gift card.

At the end of the second questionnaire, we will ask if you are interested in completing an interview. The interview will take place after completion of the 12-week questionnaire. The one-on-one interviews will last in total between 1 and 1.5 hours and will include questions about your experience at the Postnatal Wellness Clinic, your postpartum experience, your physical and emotional health, and your breastfeeding experiences. If you agree to it, we will audio record the interviews. If you do not agree to audio recording, you may still participate. Interviews will be conducted at either London Health Sciences Centre (Victoria Hospital) or at a public meeting place (such as a private meeting room at a local public library) or over the telephone— whichever location/method is most convenient for you. You can bring your infant to the interview. If you agree to participate in the interview you will be provided with an additional cash honorarium to thank you for your time and contribution.

Voluntary Participation/Withdrawal from Study

Taking part in this study is entirely voluntary. You may refuse to answer specific questions. You may decide not to be in this study. At any time, you may leave the study, or ask to have your information removed. If you decide to refuse to answer any questions or to withdraw from the study, this will not impact the care you are receiving in any way, or your ability to access services through the Postnatal Wellness Clinic.

Risks

There are some risks associated with participating in this study. There is a possibility that you may have a stress reaction when speaking about your experiences during the study interviews. In the event that you become distressed during the interview, we can: stop the interview, take a break, and provide you with local resources (such as the Women's Community House 24-hour

Helpline). If you feel safe retaining written information, after the completion of each interview you will be provided with a handout on stress reactions and community resources. Given that a stress reaction can happen post-interview, regardless of whether or not a stress reaction was observed during the interview process, a Research Assistant will review common signs of a stress reaction and available community resources.

If you have experienced intimate partner violence there is also the possibility of increased violence if your partner becomes aware of your participation in the study. To help ensure your safety, upon enrolling in this study a safety plan will be created with you. This plan will consist of safety information regarding when/how to contact you, whether it is safe to leave voice mail messages, study materials, etc. with you. If it is not safe for you to keep this letter of information our research staff will retain a copy and bring it to all subsequent meetings if you request.

Benefits

You may not directly benefit from this study; however, what we learn in this study may help us gain a greater understanding of how best to provide postnatal care to women in the community. This research may help to improve the health of women and children and help healthcare providers understand how best to care for at-risk breastfeeding women.

Reminders and Responsibilities

We will remind you, using the email address you provided us and telephone number when it is time for you to complete the 12-week questionnaire. You will have a two-week time frame to complete this questionnaire. During that time, we will send you two reminder emails and two telephone calls. We will only leave a message if, in your communication plan you agree that it is safe for us to do so.

Alternatives to Being in the Study

An alternative to being in the study is not to participate in the study and continue on just as you do now receive the exact same care.

Confidentiality

The information you tell us will be kept confidential. Your personal information (name and contact information) will be kept confidential, securely stored by researchers on a master list which is separate from the study data. The study researchers will be using information that you provide to your healthcare provider during your regular clinic visits relating to breastfeeding and your mental and physical health in the post-partum period. When we receive this information, the researchers will not be able to link the information to you directly.

Your interviews (audio recordings) will be sent to a third-party transcription company who adhere to rigorous confidentiality protocols. These audio recordings are stored by the researchers but will be shared via a secure web portal with a professional transcription company who upholds confidentiality practices to create a transcript of the interview. The digital copies of your interviews will be kept at Western University behind a secure firewall. De-identified study data

(i.e., by use of pseudonym) will be securely stored by researchers but may be included in publications/presentations of results (e.g., including in the form of direct quotes if participant checks yes on consent form) but no identifiable information will be ever be shared publicly.

If you tell us that you are at risk of harming yourself or others, by law we have a duty to breach confidentiality and report the relevant information that was disclosed. If you tell us about any current abuse of children, by law we have a duty to breach confidentiality and report the relevant information that was disclosed and report this to the local child protection agency. If we are going to share any of this information, we will discuss this with you first.

All personal health information collected for this study (mental health and attachment) will be kept confidential. Quotations provided during your interview may be used during dissemination of research findings. All identifiers will be removed prior to publication. The principal investigators will keep any personal information about you in a secure and confidential location for a minimum of 15 years. A list linking your study number with your first name will be kept by the principal investigator in a secure place, separate from your study file. Transcriptions of audio recordings will be kept up to a maximum of 15 years and will then be destroyed.

To oversee the ethical conduct of the study, representatives of Western University's Health Sciences Research Ethics Board may require access to all study-related information in order to ensure the study is following the proper laws and regulations. Representatives of Lawson Quality Assurance Education Program may require access to all your study-related documents to ensure that proper laws and guidelines are being followed.

Finally, while we will respond to your email communication, it is important for you to be aware that email is not considered a secure form of communication.

Costs

There are no costs associated with participating in this study.

Compensation

To thank you for your time, after completing the first questionnaire and the 12-week questionnaire, we will give you an Amazon gift card for each. Those who are participating in interviews will receive an additional cash honorarium at the start of the interview. If you decide to withdraw from the study, you can keep any gift cards that you have already received.

Rights as a Participant

You have the right to withdraw from the study at any time. You do not waive any legal rights by signing the consent form.

Questions about the Study

If you have questions about your participating in this study, you may contact:

[REDACTED]
[REDACTED]
[REDACTED]

If you have any questions about your rights as a research participant or the conduct of this study, you may contact: The Office of Human Research Ethics [REDACTED]

Consent Form

EMBRACE

Engaging Mothers in a Breastfeeding Intervention to Promote Relational-Attachment, Child Health, and Empowerment

Official Study Title

The impact of early postpartum care by a primary care team among at-risk breastfeeding women.

Investigators' Names:

[REDACTED]

Your participation in this study is completely voluntary.

If you decided to participate in this study and then change your mind, you are free to withdraw from the project at any time with no consequence.

If you have questions about your rights as a research participant or the conduct of this study, you may contact the Office of Research Ethics [REDACTED]

You do not waive any legal right by consenting to this study.

By clicking below, you agree to participate in the study described above.

'I agree to participate'

'I do not agree to participate'

Appendix L - Consent for Interview

Consent Form**EMBRACE****Engaging Mothers in a Breastfeeding Intervention to Promote Relational-Attachment, Child Health, and Empowerment****Official Study Title**

The impact of early postpartum care by a primary care team among at-risk breastfeeding women.

Investigators' Names:

Your participation in this study is completely voluntary.

If you decided to participate in this study and then change your mind, you are free to withdraw from the project at any time with no consequence.

If you have questions about your rights as a research participant or the conduct of this study, you may contact the Office of Research Ethics at _____

You do not waive any legal right by consenting to this study.

By signing below you agree to participate in the study described above.

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | I agree to have my interview audio-recorded |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | I agree to have unidentifiable direct quotes obtained from the interview used for dissemination. |

Participant's Name (Please Print):

Date:

Participant's Signature

Person Obtaining Informed Consent (Please Print):

Signature:

CURRICULUM VITEA

1. **NAME:** Emila Siwik

2. **EDUCATION**

Degree	University	Department	Year
M.Sc.	Western University	Health and Rehabilitation Sciences	<i>In progress</i>
B.HSc.	Western University	School of Health Studies	2019

SPECIALTY QUALIFICATIONS/CERTIFICATIONS

Certification	Organization	Date
Evidence-Informed Motivational Interviewing and Coaching Teaching Assistant Training Program	The Monarch System	2021
safeTALK	Centre for Teaching and Learning (Western University)	2019
CORE Ethics Certificate	Centre for Teaching and Learning (Western University)	2019
Teaching Safe Campus Community	Western University	2019
	Centre for Teaching and Learning (Western University)	2019

3. **EMPLOYMENT HISTORY**

Date	Rank & Position	Department	Institution
Sept 2020- Dec 2020	Teaching Assistant	Health and Rehabilitation Science	Western University
Oct 2019- Sept 2020	Research Assistant	School of Health Studies	Western University
Sept 2019- Dec 2019	Teaching Assistant	Health and Rehabilitation Science	Western University

4. **HONOURS AND AWARDS**

2020 – Graduate Student Summer Term Bursary
(recipient of \$1,500)

2019 - Dean's Honor List

(recognizes full-time students registered in the faculty of Health Sciences who completed a minimum of 4.0 courses during the previous fall/winter Session)

[September-April] and earned an average for the session of 80% or more with no failed courses)

2015 - Entrance Admission Scholarship
(recipient of \$1,500)

5. PUBLICATIONS

I. Publication Summary:

a) Submitted Manuscripts	2
b) Accepted Conferences – Cancelled	2
c) Accepted/Pending Conferences	3
d) Evidence-Informed Knowledge Mobilization Events – Volunteer	1
e) Other (e.g., workshops, academic blog posts)	3

II. Publication Details [listed below in reverse order by date]:

a) Submitted Manuscripts ($N = 2$)

2. **Siwik, E.**, Larose, S., Peres, D., Jackson, K.T., Burke, S., Mantler, T. (2021) Experiences of Accessing Breastfeeding Social Support for women who are ‘At-Risk’ During the COVID-19 Pandemic. Submitted May 2021 to the *Journal of Human Lactation*.
1. Jackson, K. T., Davidson, C. A., **Siwik, E.**, Mantler, T. (2021). Influences of Intimate Partner Violence on Key Breastfeeding Behaviours in Canadian Women. Submitted February 2021 to the *Journal of Obstetric, Gynecological, and Neonatal Nursing*.

b) Accepted Conferences – Cancelled ($N = 2$)

2. Larose, S., & **Siwik, E.** Legacy Research Conference. Accepted oral presentation. London, ON, Canada, May 7-8, 2020. *Cancelled due to COVID-19*.
1. **Siwik, E.** London Health Research Day. Accepted poster presentation. London, ON, Canada. May 5, 2020. *Cancelled due to COVID-19*.

c) Accepted/Pending Conferences ($N = 3$)

3. **Siwik, E.**, Larose, S., Peres, D., Jackson, K., Burke, S., Mantler, T. ICN

Congress: Nursing Around the World. Pending oral presentation.
Dubai, United Arab Emirates. November 2-4, 2021

2. **Siwik, E.**, Larose, S., Jackson, K., Mantler, T. Legacy Conference. Accepted oral presentation. London, ON, Canada, May 3, 2021.
1. **Siwik, E.** Health and Rehabilitation Sciences 14th annual Grade Research Conference. Pending oral presentation. Presentation of thesis study. February 3-4, 2021

d) Evidence- Informed Knowledge Mobilization Events – Volunteer (N = 1)

2019 **Siwik, E.** Research shared through art and poetry: An artistic interpretation of a novel health care intervention to support at risk women during the antenatal period. A knowledge mobilization community event. Volunteer, Western University, London, ON, Canada, October 8, 2019.

e) Other (N = 3)

3. **Siwik, E.** Workshop presenter for Discovery Day in Health Sciences. Accepted by Janice McNorgan. Health Promotion Programs: How can we help postpartum women? London, ON, Canada. May 1, 2020. *Cancelled due to COVID-19*
2. **Siwik, E.** Participant in the Interpretive description: An applied qualitative research approach in action workshop. Hosted by Dr. Sally Thorne. London, ON, Canada. March 6, 2020.
1. **Siwik, E.** (2017, April). World's Oldest Dress Re-discovered. Retrieved from: <http://archaeologymuseum.ca/worlds-oldest-dress-re-discovered/>