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Exploring the Role of the Nurse in Supporting Breastfeeding among Indigenous Women in Canada: A Scoping Review of the Literature

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Abstract

Indigenous peoples in Canada experience poorer health outcomes than the rest of the Canadian population. Indigenous populations face higher rates of morbidity and mortality from preventable infections and diseases. Breastfeeding is recognized as the optimal form of infant feeding with several health benefits for both infants and mothers who breastfeed. However, Indigenous women have lower breastfeeding rates than non-Indigenous women. Research has identified the need to increase programs and services to better support breastfeeding rates among Indigenous women. Nurses have the potential to offer interventions to support breastfeeding throughout the perinatal period. This scoping review explored the role of the nurse in breastfeeding support in Indigenous populations in Canada. This research identified both the gaps in practice as well as the positive interventions being implemented by Canadian nurses.

Keywords

Indigenous, Inuit, Métis, First Nation*, Canada, breastfeeding, breast feeding, infant feeding

Summary for Lay Audience

Indigenous peoples in Canada experience worse health outcomes than non-Indigenous Canadians. Throughout Canadian history, racist processes and systems were created that resulted in the maltreatment of Indigenous peoples. The harm inflicted upon this population has carried forward to present day through ongoing forms of discrimination and trauma passed throughout generations. The current and historical harm inflicted on Indigenous peoples has resulted in poorer health outcomes as it has created barriers to achieving wellness.

The World Health Organization (WHO) encourages breastfeeding as the favourable method of infant feeding. Breastfeeding can protect infants and mothers who breastfeed from a variety of short-term and long-term illnesses. Vulnerable populations, including Indigenous populations in Canada have lower rates of breastfeeding. This can cause increased rates of illness and in some instances, premature death in infants and children. Research has suggested offering more programs to support Indigenous women with breastfeeding. It is important to recognize the nurse plays an important role in assisting mothers with breastfeeding.

Guidelines for conducting a scoping review by Arksey and O'Malley were followed to complete this research. This included finding and reviewing studies that related to the topic of breastfeeding support for Indigenous women in Canada. The studies that were eligible for inclusion were reviewed and data regarding the role of the nurse in supporting breastfeeding were collected and analyzed. This scoping review found how nurses are supporting breastfeeding among Indigenous populations and uncovered both the positive and negative practices taking place. Nurses have offered breastfeeding promotion activities, including education and hands-on support. This research also uncovered areas where nursing practice can improve to better support breastfeeding among Indigenous women, such as enhancing the quality of care and promoting culturally safe methods of care.

Co-Authorship Statement

Lindsey Nicole Corrigan completed this scoping review for the completion of a Master's thesis under the supervision of Assistant Professor Dr. Kimberley Jackson. Assistant Professor Dr. Tara Mantler assumed the role of advisory committee member. Amber Douziech (RM, MHSc) assisted in the screening process as the second reviewer. Dr. Kimberley Jackson, Dr. Tara Mantler and Amber Douziech will be co-authors of any publications resulting from this work.

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I extend my deepest gratitude to my supervisor, Dr. Kimberley Jackson. Dr. Kimberly Jackson demonstrated incredible flexibility, inspiration, and guidance through the process of writing this thesis. Dr. Jackson is an outstanding professor and mentor who has shown me patience, understanding and compassionate support. I hope to be a nursing educator like Dr. Kimberley Jackson one day. It has been a pleasure working with Dr. Jackson and I look forward to the potential for future projects together.

I would also like to thank both Dr. Tara Mantler and Amber Douziech for their support in this thesis work. Amber Douziech spent many hours working through the screening process to support this scoping review. Dr. Tara Mantler offered a great deal of insight, writing support and feedback to strengthen this thesis.

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Table of Contents

List of Tables

List of Appendices

Statement of Recognition

Indigenous groups recognized by the Canadian constitution include First Nations, Inuit, and Métis peoples (Statistics Canada, 2022). The term “Indigenous peoples” was utilized throughout this paper and was meant to be inclusive of First Nations, Métis, and Inuit identifying people of Canada. There are more than 630 First Nations communities across Canada, with many communities and groups differing in their values, beliefs, practices, and ways of life (Statistics Canada, 2022). As such the risk for generalization among all groups of Indigenous peoples within Canada was a concern for this review.

Due to the limited amount of research on any one specific Indigenous group or setting, the entire country of Canada was selected for this review. This scoping review has identified Indigenous peoples as the population of interest. The reality of poorer health services and health outcomes for Indigenous people across Canada are well documented (Abbass-Dick et al., 2017). Systemic racism in health care influences Indigenous peoples in every province and territory (Boyer, 2017). As a result, though risk for generalization must be acknowledged, there was recognizable value in the pursuit of discovering what is being done by nurses to support Indigenous peoples with breastfeeding in Canada as a whole.

As a non-Indigenous person, I acknowledge my position within this research. I recognize my privilege in having the opportunity to write this thesis. I grew up and currently live in Waterloo, Ontario. The land I live on is located on traditional territory of Anishinaabe, Neutral and Hausenosaunee peoples. I acknowledge the land where I live, work, and play as stolen land. My family has been in Canada for several generations, but my roots are English, German, and Irish.

Chapter 1

1 Introduction

Indigenous peoples in Canada have poorer health outcomes than the rest of the Canadian population (Smylie et al., 2016). The reasons for this are multifaceted, but rooted in social, political, and economic disparities developed out of racialized systems and colonial legacy (Ritland et al., 2021). Indigenous peoples in Canada face disproportionately increased rates of acute and chronic illness at all stages of life (Kim, 2019). Canada has an obligation to address the stark inequities experienced by Indigenous peoples through the country's promise of reconciliation (Romano et al., 2019; CNA, 2021). The Truth and Reconciliation Commission of Canada has set out 94 calls to action for the Canadian Government (Truth and Reconciliation Commission of Canada, 2015). The calls to action aim to assist in repairing the damages inflicted on Indigenous peoples through the legacy of the residential school system. The calls to action address ways to promote prosperity and wellbeing among Indigenous peoples in a variety of areas, including child welfare, education, health, language, and culture (Truth and Reconciliation Commission of Canada, 2015).

In Canada, Indigenous mothers have lower rates of breastfeeding than non-Indigenous mothers (Romano et al., 2019). Breastfeeding is acknowledged by the World Health Organization (WHO) as the optimal form of infant feeding (WHO, 2011). There are health benefits for mothers who breastfeed and for infants who receive breastmilk (McQueen et al., 2013). Indigenous mothers in Canada have lower breastfeeding initiation and duration rates than the rest of the Canadian population (UNICEF, 2009; McQueen et al., 2015). Indigenous peoples have a breastfeeding initiation rate of 77.8% (Romano et al., 2019), while the average initiation rate among Canadian mothers is 91% (Francis et al., 2021). The WHO advises exclusive breastfeeding (the provision of only breastmilk with no other food or liquids, including formula) from birth to six months of life (WHO, 2011). In Canada, 34% of mothers are meeting this recommendation (Francis et al., 2021). However, the rate of exclusive breastfeeding for six months among Indigenous mothers is substantially lower, at 16.5% (Romano et al., 2019). Due to lower rates of initiation and duration of exclusive breastfeeding, Indigenous mothers and infants are not receiving the benefits of breastfeeding to the same extent as non-Indigenous mothers and infantscatal

Indigenous peoples have valued breastfeeding as a traditional and sacred practice (Abbass-Dick et al., 2017). Like many traditional practices, breastfeeding has become threatened through the destructive course of colonization and its lasting impacts (Schroeder et al., 2019). Colonization altered the traditional roles of Indigenous families (Schroeder et al., 2019) Indigenous women historically maintained leadership positions that prioritized caregiving and nurturing, including the support and transmission of breastfeeding knowledge throughout generations (Hui et al., 2021). According to Schroeder et al. (2019), when Indian Agents, sent out by colonizers, infiltrated Indigenous communities, power dynamics shifted within families and societies at large; the voices of Indigenous women were not valued as they had been traditionally. Indigenous communities became dependent on colonizers for many resources, including food; Indian Agents enforced the use of powdered formula as they considered breastmilk to be inadequate (Schroeder et al., 2019).

Nurses play an important role in the initiation of breastfeeding as they provide frequent care throughout the perinatal period (Schafer & Genna, 2015). This scoping review uncovered the role of the nurse in supporting breastfeeding among Indigenous peoples in Canada.

1.1 Background

1.1.1 Health Benefits of Breastfeeding

Breastfeeding has multiple benefits for maternal and infant health. Infants who are breastfed have lower rates of viral and bacterial infections, including gastroenteritis, necrotizing enterocolitis, otitis media and respiratory tract infections (RTIs) (Ip et al., 2007; Balogun et al., 2016). In addition, infants who are breastfed have lower incidences of asthma and allergy development (Karunanayake, 2016), reduced risk of types 1 and 2 diabetes, and reduced risk of obesity throughout the lifespan (Ip et al., 2007). Some evidence has suggested breastfeeding may reduce the risk of dental caries and dental decay in infants and toddlers (Cidro et al., 2015). Finally, evidence has suggested breastfeeding can be protective against sudden infant death syndrome (SIDS), childhood leukemia and atopic dermatitis (McIsaac, 2015; Ip et al., 2007).

Breastfeeding also infers health benefits to women. Mothers who breastfeed have a reduced risk of type 2 diabetes mellitus, postpartum depression, and ovarian cancer (Ip et al., 2007; Balogun, 2016). In addition, women who breastfeed have a reduced risk of breast cancer; a meta-analysis

conducted by Victora et al. estimated if breastfeeding rates increased globally to a “near universal level”, 20,000 breast cancer related deaths could be prevented each year (2016, p. 485).

While the benefits of breastmilk and breastfeeding are well established, Indigenous mothers are less likely to breastfeed than other Canadian mothers (McIsaac et al., 2015). This is significant as Indigenous infants in Canada are disproportionately affected by RTIs, otitis media, and gastrointestinal infections (McIsaac et al., 2015). McIsaac et al. (2015) estimated hospitalizations due to otitis media, gastrointestinal infections, and RTIs could decrease by up to 10.6%, 41.4% and 26.1%, respectively, if all Indigenous infants received at least four months of any breastfeeding. Indigenous infants are between five and 12 times more likely to die from SIDS than non-Indigenous infants (McIsaac et al., 2015). It is estimated up to 24.6% of incidences of SIDS could potentially be prevented if all Indigenous infants received any breastfeeding throughout a four-month period (McIsaac et al., 2015).

In comparison to non-Indigenous adults in Canada, rates of type 2 diabetes in Indigenous adults can be three times higher than non-Indigenous populations (Public Health Agency of Canada, 2018). Breastfeeding has been linked to reducing the risk of diabetes throughout the lifespan (Martens et al., 2016). For example, research conducted on a sample that included both Indigenous and non-Indigenous people found breastfeeding initiation in the first days of life was associated with a reduced risk for the development of type 2 diabetes 24 years later by 11 – 27% (Martens et al., 2016).

1.1.2 Financial Impacts of Breastfeeding

In addition to the health benefits, there are financial impacts of breastfeeding at both a societal and individual level. While Canadian data are unavailable, Bartick et al., estimated in the United States, the costs associated with low breastfeeding rates were $3.0 billion for total medical costs, $1.3 billion for non-medical costs and $14.2 billion for premature death costs in 2014 (2017). On a global scale, the estimated cost of not breastfeeding is $302 billion dollars, annually (Balogun et al., 2016).

While breastfeeding infers numerous cost benefits both at an individual and societal level, there are also associated negative costs. The costs associated with breastfeeding can be challenging to

quantify, for example, the consumption of a mother's time and interruptions to work and/ or school (Smith & Forrester, 2013). Often, mothers who breastfeed spend money on equipment, such as breast pumps, nursing pads and nursing pillows (Mavranezouli et al., 2022). However, while recognizing breastfeeding is not "free", Best Start (2017) estimated Canadian families could still save up to $3,360 annually if they breastfeed their infant (Best Start, 2017).

Despite the recognizable health benefits and potential cost-savings, the practice of breastfeeding is complex, with psychological, social, and environmental factors impacting breastfeeding outcomes. At the micro level, individual factors such as income, education, age, confidence, pathophysiologic limitations, as well as the relationship a mother has with her body can influence both initiation and continuation of breastfeeding (Balogun et al., 2016). At the meso level, support networks, legislation, policy, and availability of services contribute to breastfeeding (Gallegos et al., 2020). At a macro level, health systems, cultural practices and societal systems influence infant feeding decision-making and outcomes (Mcqueen et al., 2015; Balogun et al., 2016).

1.1.3 The Baby-Friendly Initiative

The Baby-Friendly Initiative (BFI) is a global breastfeeding promotion strategy that was developed to increase breastfeeding rates through improving breastfeeding care for the mother and infant dyad in the hospital setting (Aryeetey & Dykes, 2018). A systematic review conducted by Kim et al. (2018) concluded the implementation of the BFI should be the primary strategy initiated in hospitals as the BFI has been found to have the greatest influence on increasing breastfeeding rates.

Unfortunately, there is evidence the BFI has not increased breastfeeding rates in Indigenous communities as it has in urban areas of Canada (Bacciaglia, 2023; Gauld, 2009). While the reasons Indigenous peoples are not benefitting from the BFI have not been well-studied (Bacciaglia, 2023), the research suggests the issue may be two-fold. Firstly, there was a lack of resources and efforts in implementing BFI in many Indigenous communities, such as BFI designated facilities (Bacciaglia, 2023). Secondly, Indigenous women who have experienced interactions with BFI have reported feeling there was a lack of cultural safety embedded within BFI practices and policy (Bacciaglia, 2023; Moffitt, 2018). Research by Gauld (2009) reinforced

these findings as Indigenous women reported their experiences with the BFI were not patient-centered and failed to consider the social and personal reasons an Indigenous women may not breastfeed, such as the need to return to work or school, or a history of physical or sexual trauma (Gauld, 2009).

1.1.4 Origin of Health Inequity

Research has uncovered relationships between breastfeeding rates and colonial and post-colonial practices (Abbass-Dick et al., 2017). The knowledge of breastfeeding practice was once tacit in nature; teachings were passed along generations from mothers, aunts, and Elders (Abbass-Dick et al., 2017). Breastfeeding was valued as something sacred, life giving, and considered, "a gift from the Creator" (Abbass-Dick et al., 2017, p. 480). Breastfeeding was considered a practice that connected mothers to previous generations as well as their community and environment (Abbass-Dick et al., 2017). It is known that rates of breastfeeding among Indigenous populations are not improving at the same rate as the rest of Canada, once again leaving Indigenous populations behind (McQueen, 2015). This section will consider how the residential school system and intergenerational trauma have impeded breastfeeding outcomes among Indigenous peoples in Canada.

The residential school system was created with the objective of assimilating Indigenous children to Euro-Western culture, eradicating the cultural norms, values, skills, religion, and language of Indigenous peoples (Aguiar and Halseth, 2015). This process caused devastating impacts for individuals, families, and communities that, for many, resulted in loss of identity, culture, and self-esteem (Aguiar and Halseth, 2015). Though the last residential school in Canada closed in 1996, the traumas inflicted have carried forward over several generations (Aguiar and Halseth, 2015). The residential school system left a legacy of shame, grief, and pain for many Indigenous peoples; recognized now as intergenerational trauma (Aguiar and Halseth, 2015). Aguiar and Halseth (2015) defined intergenerational trauma as a chronic post-traumatic stress disorder that has resulted from severe psychological or physical trauma, such as the physical and sexual abuse many Indigenous children encountered in the residential school system (Aguiar and Halseth, 2015). Intergenerational trauma is the cause of many social challenges faced by some Indigenous peoples, families, and communities in present day (Aguiar and Halseth, 2015). Aguiar and Halseth (2015) noted these social challenges may include, but are not limited to, challenges with

parenting, intimate partner and other violence, addictions, and poverty. In recognizing the multitude of the social challenges caused by intergenerational trauma, the experience of physical and sexual violence has been known to negatively influence breastfeeding outcomes (Eni et al., 2014). Physical and sexual trauma cause lasting detrimental impacts on self-concept and impair the ability a woman may have to develop a positive relationship with her body (Eni et al., 2014). Eni et al. (2014) found trauma negatively influenced breastfeeding outcomes as women associated breastfeeding with feelings of shame. Qualitative research by Eni et al. (2014) found a history of family attendance in the residential school system to be a barrier to any breastfeeding taking place.

1.1.5 Nursing Role in Breastfeeding

Nurses play a role in promoting and supporting breastfeeding throughout pregnancy and the postpartum period. Breastfeeding support is commonly a responsibility of the nurse as physicians often have suboptimal breastfeeding knowledge (Esselmont et al., 2018) and in many rural settings, lactation consultants are not accessible (Uscher-Pines et al., 2020). A Cochrane systematic review of 28 trials reported breastfeeding education provided by health care providers, including nurses, increased breastfeeding initiation through enhancing breastfeeding motivation, skills, and confidence (Balogun et al., 2016). The Best Practice Guidelines (BPGs) for nurses in Ontario acknowledge the nursing role in breastfeeding support including the following: creating calm, supportive environments for breastfeeding; providing education on infant feeding cues; providing education on the benefits of breastfeeding; informing families of normal behaviours of the breastfed infant; helping obtain an effective latch; and the encouragement of skin-to-skin contact and rooming in (Schafer & Genna, 2015).

The nursing role as it pertains to breastfeeding support among Indigenous women in Canada has not been studied systematically. The breastfeeding supports Indigenous women receive from nurses and other members of the health care team are not well known (Willows, 2012). As such, this review aimed to explore what nursing supports were offered to Indigenous women to promote and support breastfeeding while identifying the gaps in nursing practice.

1.2 Study Purpose

The purpose of this scoping review was to examine existing literature to explore the role of the nurse in supporting breastfeeding among Indigenous women in Canada. This review uncovered what supports are currently in place as well as identified the gaps and barriers in knowledge and care provision for an understudied population (Willows, 2012).

1.3 Study Significance

Balogun et al. (2016), reported the need for increased research on the topic of breastfeeding to develop more multifaceted solutions to diminish the societal barriers to breastfeeding. This scoping review may inform the nursing discipline of an overlooked issue while potentially contributing to the knowledge base of Indigenous maternal-child health research in Canada (Monteith et al., 2021). Through the process of reviewing the available literature on the topic of breastfeeding support by nurses for Indigenous women in Canada, key themes were uncovered. The key themes identified described the role of the nurse in breastfeeding support as well as the gaps in nursing practice. The findings of this review may enable researchers, policy makers, and practitioners to identify areas where increased support or alternations to care for breastfeeding are indicated in efforts to better align with the needs of Indigenous mothers.

1.4 Theoretical Framework

Critical social theory (CST) informed this scoping review through guiding the development of a research question that considered nursing care for an oppressed population in Canada. Critical social theory underpinned the background of this study in recognizing health disparities between Indigenous peoples and non-Indigenous peoples in Canada. Critical social theory remained relevant in the determination of the aim of the review, the interpretation of findings and the development of study implications. This occurred through the identification of the need for change and emancipation from traditional systems to better support Indigenous mothers with breastfeeding outcomes.

At the foundation of CST is the guiding principle that all human behaviour, knowledge, belief systems and social order are a product of oppression and unequal power relations throughout history (Browne, 2000). The result is hegemonic ideology embedded within all social, political,

and economic systems wherein power imbalances are continuously, innately reinforced (Browne, 2000). In utilizing CST as a theoretical framework in nursing research, individuals are urged to uncover and critique social norms as “critical social science serves as a catalyst for enlightenment, empowerment, emancipation, and social transformation” (Browne, 2000, p. 39).

In the context of Indigenous health, CST is an applicable framework that allows for consideration of the disparities noted in health care and health outcomes within a population that has been outrageously oppressed. When addressing a health care concern within Indigenous peoples, it is necessary to consider how intergenerational trauma caused by the racialized history continues to influence the wellbeing of many Indigenous peoples in Canada (Abbass-Dick et al., 2017).

1.5 Research Question

This scoping review addressed the following research question: “What is known from the existing literature about the role of the nurse in supporting breastfeeding and breastfeeding promotion among Indigenous women in Canada?” This research question aimed to explore what nursing supports were offered to Indigenous women to promote and support breastfeeding while identifying the gaps in nursing practice pertaining to breastfeeding support.

1.6 Self-Declaration

I have been a Registered Nurse for five years working in Obstetrics in a rural hospital in Southern Ontario. In this work, I have had the opportunity to support families with their individualized infant feeding journeys. I have become passionate about empowering women to achieve their breastfeeding goals, and I have discovered a great deal of value and reward in spending time with families, each with unique goals and challenges. Alongside the joy in this work, the barriers of having inadequate support for breastfeeding and infant feeding became widely evident. In my experience, breastfeeding support has fallen further to the wayside in our hospitals as short staffing becomes a critical issue. For a number of years, the rural hospital I work at did not have access to an Ontario Health Insurance Plan covered lactation consultant, leaving many families with inadequate supports in place upon discharge. Many public health resources were diminished during the Covid-19 pandemic. I became discouraged when I felt I

did not have the time in my shift to assist and support families with what they required for success.

Throughout the process of obtaining my Master of Science in Nursing (MScN), I was able to take a variety of courses that shed light on the impact of intergenerational trauma, disparities within our health care system and how colonial legacy has influenced our social systems and disadvantaged Indigenous peoples. I took my interest in breastfeeding support in a new direction when I learned that rates of breastfeeding among Indigenous peoples are lower than the rest of the Canadian population. I found the support Indigenous peoples had access to are far less than the supports available in urban areas of Canada (Eni et al., 2014). Marrying my interests of breastfeeding support with Indigenous health promotion motivated this research.

Acknowledging I am a non-Indigenous individual with no personal breastfeeding experience of my own, I recognize the potential biases I maintain in writing this review. I recognize infant feeding choices are highly complex and personal. I feel the nurse must be accepting of personal infant feeding choices while having the knowledge, skill, and judgement to competently inform and support families with the infant feeding method of their choosing. In writing about Indigenous peoples in Canada, I recognize Inuit, Métis and First Nations peoples as resilient and inspiring. Despite continuous efforts for these populations to be assimilated to Euro-western culture, and very little efforts to foster prosperity, Indigenous peoples remain with outstanding spirit. I am inspired by the hope of a better Canada; a nation driving to achieve true reconciliation. I maintain the hope of knowledge sharing and taking part in bringing deeply rooted racialized issues to light. Though I am not a victim of the injustices faced by Indigenous peoples, all Canadians must have a voice and stand up to the ongoing issues Indigenous people experience in this country. Nurses must have an active role in reconciliation through practicing culturally safe care, possessing and sharing knowledge on the inequities Indigenous peoples experience and working as both an ally and an advocate for better outcomes.

Chapter 2

2 Methodology

2.1 Study Design

A scoping review was undertaken to synthesize knowledge on the topic of nursing support for breastfeeding among Indigenous women in Canada. A scoping review was selected as the appropriate method due to the exploratory nature of the research question, "What is known from the existing literature about the role of the nurse in supporting breastfeeding and breastfeeding promotion among Indigenous women in Canada?" (Munn et al., 2022). Scoping reviews identify gaps in existing knowledge, informing future research, programs, policy, education, and practice (Arksey & O'Malley, 2005). This scoping review was guided by the five-stage Arksey and O'Malley methodological framework (2005), which included: (1) identifying the research question; (2) identifying relevant studies; (3) study selection; (4) charting of the data; and (5) collating, summarizing, and reporting results.

2.1.1 Stage 1: Identifying the Research Question

Research has identified increasing breastfeeding rates in Indigenous populations as a potential method to reduce health disparities between Indigenous and non-Indigenous peoples in Canada (McQueen et al., 2015). Nurses have the ability to influence breastfeeding initiation, duration, and exclusivity through providing prenatal and postnatal education, supporting breastfeeding environments, and offering practical breastfeeding assistance throughout the postpartum period (Schafer & Genna, 2015). To understand how nurses can better support breastfeeding outcomes among Indigenous women, it is important to develop an understanding of what has taken place thus far.

The research question allowed for a thorough investigation of the literature to assess the nursing role in breastfeeding support and breastfeeding promotion. The research question also prompted investigation of the gaps in nursing care provision, to explore areas where nurses were not adequately supporting breastfeeding. Consequently, the research question was, "What is known from the existing literature about the role of the nurse in supporting breastfeeding and breastfeeding promotion among Indigenous women in Canada?"

2.1.2 Stage 2: Identifying Relevant Studies

With the assistance of a librarian at Western University, a search strategy was developed. The following databases were searched: Embase, PsycINFO, Cochrane, Medline, and Cumulated Index to Nursing and Allied Health Literature (CINAHL). These databases were selected as they cover a broad range of nursing literature. Keywords and appropriate subject headings were searched in the appropriate databases. To consider all available literature, historical terminology was utilized to capture the titles Indigenous peoples have had. The search terms utilized include: *Indigenous, Indigenous Canadians, Indigenous people*, Indigenous population*, Inuit, Métis, First Nation*, Canadian Indian, North American Indian, Native, Native American, Eskimo, Aboriginal, Aboriginal Canadian, Canada, Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Quebec, Saskatchewan, Yukon, Yukon Territory, breastfeeding, breast feeding, infant feeding.* The complete search strategy is outlined in Appendix B.

In consultation with the librarian from Western University, the decision was made to exclude the term "nurse" from the search. This decision was made to expand the search as much as possible. The articles collected included all Canadian literature on the topic of breastfeeding and infant feeding among Indigenous peoples; it was through the screening process that articles were included if an identifiable role of the nurse was recognized. Date limits were not applied in this search as there was a lack of available literature on the topic without further restricting available articles with date limitations. Furthermore, utilizing all available research allowed for increased depth and breadth of data as the reviewer was able to note how the nursing role in supporting breastfeeding has changed over time. Finally, using a combination of the above search terms, a grey literature search was conducted that searched Google, The Theses Repository of Canada, and the Indigenous Studies Portal (I-Portal).

2.1.3 Stage 3: Study Selection

The search yielded 384 articles, 14 of which were grey literature. A total of 137 duplicates were removed. This left 247 article abstracts and titles to be reviewed independently by two reviewers. Articles were reviewed based on the following inclusion criteria: 1) literature must be written in English; 2) Indigenous peoples must be the population of focus for any research included in this

review; 3) literature must pertain to the role of the nurse in providing breastfeeding support, or breastfeeding promotion 4) articles had to pertain to any nursing in Canada; and, 5) the literature must explore breastfeeding or provision or breastmilk through an alternative feeding method. No date limitations were applied. Covidence was utilized for abstract screening and full-text screening (Polanin et al., 2019). A total of 58 articles were eligible for full-text review. All articles were read in full by both reviewers and 39 articles were excluded. Of the 39 excluded articles, 34 were excluded as they did not specifically report the role of the nurse. One of the 39 articles was not available in English. Two articles were not based in Canada and two articles were excluded as they did not include Indigenous peoples within the population of focus. The list of the 39 excluded articles with rationale for exclusion are listed in Table 1 (Appendix C).

Upon completion of full-text review by two independent reviewers, 19 articles met the inclusion criteria for the review. The screening and identification process for data collection was outlined in the PRISMA flowchart (Appendix D).

2.1.4 Stage 4: Charting the Data

A data-charting form was developed independently that included the following categories as outlined by Arksey and O'Malley: author(s), year of publication, study location, intervention type and duration, study populations, aims of the study, methodology, and study outcomes (2005). Excel was utilized to chart the data. Data charting was iterative in nature from November 2022 to February 2023 (Levac et al., 2010). After each article was read in full, data were charted based on the characteristics outlined by Arksey and O'Malley (2005). Within the included literature, any nursing action was included and transcribed in the study outcomes column. The characteristics from the 19 included articles are presented in the Characteristics Chart (Appendix E).

2.1.5 Stage 5: Reporting, Summarizing and Collating the Data

Both thematic and numerical analyses were completed. A numerical analysis was conducted to understand the extent, nature, and distribution of the methodology, geographical location as well interventions for breastfeeding support (Arksey & O'Malley, 2005). This form of analysis was conducted by reading each article in full, and recording the data pertaining to methodology, geography, population, and intervention. This data was recorded in the excel chart and then

tabulated to produce a numerical summary of the distribution of these characteristics (Arksey & O'Malley, 2005).

The thematic analysis was completed through reading each article in full. All data pertaining to the nurse's involvement in breastfeeding support was charted in excel for each article. Common themes and patterns emerged through this charting process (Arksey & O'Malley, 2005). It was first recognized there was a notable mix of nursing actions that were non-inhibitory and/ or supportive to breastfeeding outcomes and nursing actions that were described by study participants as inhibitory to breastfeeding outcomes. The data from each article was first categorized into whether the nursing action was inhibitory or non-inhibitory to breastfeeding outcomes. Next, within these two broader categories, specific nursing actions and interventions that attributed to breastfeeding outcomes were reviewed and more specific themes began to emerge through a coding process. For instance, several studies discussed how nurses working with members of the community and interdisciplinary team in varying capacities led to positive breastfeeding experiences and improved rates of breastfeeding for Indigenous women. The themes uncovered encapsulated both the positive and negative nursing actions discussed in the literature and are described in the following section.

Chapter 3

3 Results

3.1 Numerical Analysis

3.1.1 Study Design, Geographic Location and Population

Of the 19 articles, one solely used quantitative approaches (Martens, 2001). Five articles employed a qualitative methodological approach (Cormier, 2014; Crosschild, 2014; Eni et al., 2014; Gauld, 2009; Wagner, 2007) and 13 were conducted using mixed-method designs (Abbass-Dick et al., 2017; Banks, 2003; Hui et al., 2021; Macaulay et al., 1989; MacQuarrie, 1984; Martens, 1994; Martens, 1997; Martens, 2002; Martens & Young, 1997; McKim et al., 1998; Moffitt, 2018; Moffitt & Dickinson, 2016; Smylie et al., 2016).

Table 1. Distribution of Study Design

Methodology	**Number of Articles**
Quantitative	One article (Martens, 2001)
Qualitative	Five articles (Cormier, 2014; Crosschild, 2014; Eni et al., 2014; Gauld, 2009; Wagner, 2007)
Mixed-Methods	13 articles (Abbass-Dick et al., 2017; Banks, 2003; Hui et al., 2021; Macaulay et al., 1989; MacQuarrie, 1984; Martens, 1994; Martens, 1997; Martens, 2002; Martens & Young, 1997; McKim et al., 1998; Moffitt, 2018; Moffitt & Dickinson, 2016; Smylie et al., 2016)

Literature included in this scoping review covered seven provinces and one territory, including: six articles conducted in Manitoba (Hui et al., 2021; Martens, 1994; Martens, 1997; Martens, 2001; Martens, 2002; Martens & Young, 1997); three articles conducted in Ontario (Abbass-Dick et al., 2017; Gauld, 2009; MacQuarrie, 1984); two articles conducted in each of the Northwest Territories (Moffitt, 2018; Moffitt & Dickinson, 2016) and Quebec (Banks, 2003; Macaulay et al., 1989); one article from each of Saskatchewan (Wagner, 2007), Alberta (Crosschild, 2014), Newfoundland (McKim, 1998), and Nova Scotia (Cormier, 2014). One article included data from three provinces, including Ontario, Quebec, and British Columbia (Eni

et al., 2014). Finally, one article reviewed health promotion practices across all of Canada (Smylie et al., 2016).

Table 2. Distribution of Geographic Location

Geographic Location	**Number of Articles**
Manitoba	Six articles (Hui et al., 2021; Martens, 1994; Martens, 1997; Martens, 2001; Martens, 2002; Martens & Young, 1997)
Ontario	Three articles (Abbass-Dick et al., 2017; Gauld, 2009; MacQuarrie, 1984)
Northwest Territories	Two articles (Moffitt, 2018; Moffitt & Dickinson, 2016)
Quebec	Two articles (Banks, 2003; Macaulay et al., 1989)
Saskatchewan	One article (Wagner, 2007)
Alberta	One article (Crosschild, 2014)
Newfoundland	One article (McKim, 1998)
Nova Scotia	One article (Cormier, 2014)
Ontario, Quebec, and British Columbia	One article (Eni et al., 2014)
Canada	One article (Smylie et al., 2016)

Of the 19 included articles, seven were grey literature. The grey literature included in this scoping review comprised of six theses, found in the theses repository of Canada (Cormier, 2014; Crosschild, 2014; Gauld, 2009; Martens, 1994; MacQuarrie, 1984; Wagner, 2007) and one was a research project funded by the Government of the Northwest Territories (Moffitt, 2018).

The population of focus for this scoping review consisted of pregnant Indigenous women and/ or Indigenous mothers. All women identified as Inuit, Métis or First Nations and were of childbearing age living both on and off reserves in Canada. Research by Banks' (2003) did not report a specific sample size, rather, reported data was collected on infants born over a six-year span (1995 - 2001) in the Mohawk community of Kanesatake. The community of 1500 people had between 15 – 17 births occur each year. Additionally, Martens (1994), Martens (1997) and, Martens and Young (1997), utilized the same 36 participants for all research conducted in these three articles. One article included Indigenous male and female adolescents (N=34) (Martens,

2001). The participants were between 12 and 14 years of age; 17 participants were male and 17 participants were female (Martens, 2001). One article included was a realist review of health promotion programs in Canada (N=20) for Indigenous infants and toddlers, of the 20 programs analyzed, five discussed breastfeeding (Smylie, 2016). The remaining 16 articles included a total of 912 Indigenous women as participants (Abbass-Dick et al., 2017; Cormier, 2014; Crosschild, 2014; Eni, 2014; Gauld, 2009; Hui et al., 2021; Macaulay, 1989; MacQuarrie, 1984; Martens, 1994; Martens, 1997; Martens, 2002; Martens & Young, 1997; McKim, 1998; Moffitt, 2018; Moffitt & Dickinson, 2016; Wagner, 2007).

Two articles incorporated data collection from key informants, including peer counsellors, nurses, Elders, and social workers, for a total of 21 key informants participating in two qualitative articles conducted (Gauld, 2009; Martens & Young, 1997). There was little demographic data available to describe the key informants aside from their roles and job titles. The articles that were included ranged from the years 1984 to 2021. One article was based upon a study occurring during the COVID-19 Pandemic (Hui et al., 2021).

3.1.2 Interventions

Of the 19 articles, 17 articles reported the role of the nurse in providing positive and effective breastfeeding education to promote breastfeeding in some capacity (Abbass-Dick et al., 2017; Banks, 2003; Cormier, 2014; Eni et al., 2014; Gauld, 2009; Hui et al., 2014; Macaulay, 1989; Martens, 1994; Martens, 1997; Martens, 2001; Martens, 2002; Martens & Young 1997; McKim, 1998; Moffitt, 2018; Moffitt & Dickinson, 2016; Smylie et al., 2016; Wagner, 2007). The remaining two articles did not describe effective breastfeeding education from nurses in any capacity (Crosschild, 2014; McQuarrie, 1984).

Of the 17 articles that described education as an intervention for breastfeeding support, pamphlets, booklets, and other literary resources for educating Indigenous women were utilized in five articles (Banks, 2003; Cormier, 2014; Macaulay, 1989; Martens, 1994; Martens; 1997). One article discussed the nursing role in creating educational content for a seminar (Martens, 2001). Two articles discussed the development digital content, including eHealth resources, websites, and online chat groups for breastfeeding support (Abbass-Dick et al., 2017; Hui et al., 2014). Three articles discussed the creation and utilization of videos to provide breastfeeding

education (Martens, 1997; Martens, 2002; Moffitt & Dickinson, 2016). Six articles reported the educational content was developed in such a way that prioritized Indigenous cultural relevance and traditional practices (Abbass-Dick et al., 2017; Banks, 2003; Hui et al., 2021; Moffitt, 2018; Moffitt & Dickinson, 2016; Wagner, 2007). Ten articles discussed hands-on delivery of breastfeeding support by the nurse in the postpartum period (Cormier, 2014; Gauld, 2009; Hui et al., 2021; Martens, 1994; Martens, 1997; Martens, 2002; Martens & Young 1997, Macaulay, 1989; Moffitt, 2018; Wagner, 2007). Methods of in-person breastfeeding support included postpartum care by the Community Health Nurse (CHN), discussed in seven articles (Macaulay, 1989; Martens, 1994; Martens, 1997; Martens, 2002; Martens & Young, 1997; Moffitt, 2018; Wagner, 2007). Hospital nurses were present for breastfeeding support during the acute postpartum phase in six articles (Gauld, 2009; Martens, 1994; Martens, 1997; McKim, 1998; Moffitt, 2018; Wagner, 2007).

Seven articles described nurses did not implement best practices to support breastfeeding (Cormier, 2014; Crosschild, 2014; Eni et al., 2014; MacQuarrie, 1984; Martens, 1994; Moffitt & Dickinson, 2016; Wagner, 2007). Finally, participants in eight articles described the lack of culturally safety experienced when interacting with some nurses (Cormier, 2014; Crosschild, 2014; Eni et al., 2014; Gauld, 2009; MacQuarrie, 1984; Moffit, 2018; Moffitt & Dickinson, 2016; Wagner, 2007), while the remaining 11 articles did not discuss cultural safety.

Table 3. Distribution of Interventions

Nursing Intervention	**Number of Articles**
Provision of breastfeeding education in any format	17 articles (Abbass-Dick et al., 2017; Banks, 2003; Cormier, 2014; Eni et al., 2014; Gauld, 2009; Hui et al., 2014; Macaulay, 1989; Martens, 1994; Martens, 1997; Martens, 2001; Martens, 2002; Martens & Young 1997; McKim, 1998; Moffitt, 2018; Moffitt & Dickinson, 2016; Smylie et al., 2016; Wagner, 2007)
Provision of literary resources for breastfeeding education	Five articles (Banks, 2003; Cormier, 2014; Macaulay, 1989; Martens, 1994; Martens; 1997)

Provision of education through seminar format	One article (Martens, 2001)
Provision of education through online materials	Two articles (Abbass-Dick et al., 2017; Hui et al., 2014)
Provision of education with videos	Three articles (Martens, 1997; Martens, 2002; Moffitt & Dickinson, 2016)
Culturally relevant educational content	Six articles (Abbass-Dick et al., 2017; Banks, 2003; Hui et al., 2021; Moffitt, 2018; Moffitt & Dickinson, 2016; Wagner, 2007)
Hands on breastfeeding support	Ten articles (Cormier, 2014; Gauld, 2009; Hui et al., 2021; Martens, 1994; Martens, 1997; Martens, 2002; Martens & Young 1997, Macaulay, 1989; Moffitt, 2018; Wagner, 2007)
CHN for breastfeeding support	Seven articles (Macaulay, 1989; Martens, 1994; Martens, 1997; Martens, 2002; Martens & Young, 1997; Moffitt, 2018; Wagner, 2007)
Hospital nurse for breastfeeding support	Six articles (Gauld, 2009; Martens, 1994; Martens, 1997; McKim, 1998; Moffitt, 2018; Wagner, 2007)
Lack of nurse implantation of best practices for breastfeeding	Seven articles (Cormier, 2014; Crosschild, 2014; Eni et al., 2014; MacQuarrie, 1984; Martens, 1994; Moffitt & Dickinson, 2016; Wagner, 2007).
Lack of culturally safe nursing care	Eight articles (Cormier, 2014; Crosschild, 2014; Eni et al., 2014; Gauld, 2009; MacQuarrie, 1984; Moffit, 2018; Moffitt & Dickinson, 2016; Wagner, 2007)

3.2 Thematic Analysis

In reviewing the literature regarding breastfeeding support for Indigenous women in Canada, four key themes emerged through the process of analyzing the 19 included articles. The four thematic areas that emerged included: (1) collaboration – which included the sub-themes of

nurse collaboration with peer counsellors and nurse collaboration with Elders; (2) breastfeeding education – which included the sub-themes of breastfeeding promotion activities and hands-on breastfeeding support; (3) poor quality of nursing care – which addressed a lack of support from some nurses and some nurses not adhering to BPGs for breastfeeding; and (4) lack of cultural safety in nursing practice. This section will describe, in depth, the key themes that emerged from the data including the sub-themes that were identified.

3.2.1 Collaboration

In exploring the role of the nurse in supporting breastfeeding among Indigenous women in Canada, nurse collaboration with the interdisciplinary team and community members was identified in eight articles (Abbass-Dick et al., 2017; Banks, 2003; Cormier, 2014; Hui et al., 2021; Martens, 2002; Moffitt, 2018; Moffitt & Dickinson, 2018; Wagner, 2007). Some literature discussed nurse collaboration with dietitians, Canada's Prenatal Nutrition Program (CPNP) workers, public health service workers, lactation consultants and Indigenous mothers to support breastfeeding outcomes (Wagner, 2007; Abbass-Dick et al., 2017; Hui et al., 2021). In most articles, interdisciplinary collaboration was found to be conducive to improved breastfeeding outcomes and experiences by Indigenous women in Canada (Abbass-Dick et al., 2017; Banks, 2003; Cormier, 2014; Hui et al., 2021; Martens, 2002; Moffitt, 2018; Moffitt & Dickinson, 2018; Wagner, 2007). In five articles, nurses worked with peer counsellors and Elders within Indigenous communities (Banks, 2003; Hui et al., 2021; Martens, 2002; Moffitt, 2018; Moffitt & Dickinson, 2018). Indigenous women often felt more comfortable receiving breastfeeding support from peer counsellors and Elders than non-Indigenous nurses (Banks, 2003; Moffitt, 2018). Peer counsellors and Elders offered culturally safe breastfeeding care to Indigenous women while they also taught nurses methods of culturally safe and relevant care (Moffitt, 2018). Research by Crosschild (2014) reported the important link between culturally safe breastfeeding care and improved breastfeeding outcomes. The sub-themes of collaboration with the peer counsellor and collaboration with Elders will be further discussed.

3.2.1.1 Collaboration with Peer Counsellor

A peer counsellor was defined in the literature as an Indigenous community member who had received breastfeeding education and was highly equipped to provide culturally safe care to

Indigenous mothers (Banks, 2003; Hui et al., 2021). In four articles, nurses collaborated with peer counsellors in Indigenous communities (Banks, 2003; Hui et al., 2021; Martens, 2002; Moffitt & Dickinson, 2016). The peer counsellor assisted the nurse through conducting home visits for breastfeeding support through the facilitation of peer support meetings (Martens, 2002; Moffitt & Dickinson, 2016). Peer counsellors taught prenatal classes in Indigenous communities with support from the nurse (Hui et al., 2021). Peer counsellors and nurses worked together to answer breastfeeding related questions in online group discussions (Hui et al., 2021). In communities where health care providers and resources were scarce, a trained peer counsellor was an effective intervention as the peer counsellor worked one-on-one with Indigenous mothers and consulted a health care provider only when necessary (Banks, 2003; Moffitt & Dickinson, 2016).

3.2.1.2 Collaboration with Elders

In four articles, nurses partnered with Elders to offer breastfeeding support that incorporated traditional practices (Banks, 2003; Hui et al., 2021; Moffitt, 2018; Moffitt & Dickinson, 2016). Nurses worked with Elders in varying capacities; for example, Moffitt and Dickinson (2016) reported Elders offered insight in the development of teaching resources. Further, Hui et al. (2021) described the inclusion of Elders in prenatal classes to incorporate traditional forms of Indigenous knowledge translation related to breastfeeding. Three other articles discussed the use of sharing circles and storytelling which offered culturally relevant insight for breastfeeding support (Banks, 2003; Hui et al., 2021; Moffitt, 2018).

The collaboration between nurses and peer counsellors and nurses and Elders allowed for more effective culturally safe care for Indigenous women (Banks, 2003). Indigenous women often valued teaching from peers and family over teachings from the health care system (Banks, 2003; Smylie et al., 2016).

3.2.2 Breastfeeding Education

In analyzing the literature on the nursing role in supporting breastfeeding among Indigenous women in Canada, 17 articles found nurses offered various forms of education to promote and support breastfeeding (Abbass-Dick et al., 2017; Banks, 2003; Cormier, 2014; Eni et al., 2014; Gauld, 2009; Hui et al., 2014; Macaulay, 1989; Martens, 1994; Martens, 1997; Martens, 2001;

Martens, 2002; Martens & Young 1997; McKim, 1998; Moffitt, 2018; Moffitt & Dickinson, 2016; Smylie et al., 2016; Wagner, 2007). Within the theme of breastfeeding education, the sub-themes of breastfeeding promotion activities and hands-on breastfeeding support were identified. Nurses offered breastfeeding promotion activities throughout the perinatal period and hands-on breastfeeding support throughout the postpartum period; most methods of teaching by nurses were well received by Indigenous women and were reported to improve breastfeeding experiences in some capacity (Abbass-Dick et al., 2017; Banks, 2003; Cormier, 2014; Gauld, 2009; Hui et al., 2014; Macaulay, 1989; Martens, 1994; Martens, 1997; Martens, 2001; Martens, 2002; Martens & Young 1997; Moffitt & Dickinson, 2016; Smylie et al., 2016; Wagner, 2007).

3.2.2.1 Breastfeeding Promotion Activities

Nurses provided breastfeeding promotion activities for Indigenous women through multiple mediums, including seminars (Martens, 2001), the creation and/ or provision of written content (Cormier, 2014; Macaulay, 1989; Martens, 1994; Martens; 1997), videos and photobooks (Martens, 1997; Martens, 2002; Moffitt & Dickinson, 2016), eHealth breastfeeding resources (Abbass-Dick et al., 2017; Hui et al., 2021), and sharing circles (Banks, 2003; Hui et al., 2021; Moffitt, 2018). Martens (2001) reported the CHN developed a seminar for Indigenous teens in efforts to educate and influence attitudes and knowledge towards breastfeeding. Martens' work in 2002 described the CHN implemented a strategy to promote breastfeeding through enhancing prenatal care resources; the CHN created teaching booklets and videos to improve breastfeeding education that were shown at prenatal clinics; breastfeeding initiation rates increased from 38% to 60% over two years in association with the CHN's prenatal educational intervention. Of the written educational resources offered (mainly, booklets and pamphlets) Indigenous women have reported these resources to be helpful, but often women felt this was a short-cut to one-on-one care and meaningful conversation about breastfeeding (Cormier, 2014). Banks (2003) reported the importance of the development of interventions that are not based on the Eurocentric models of care and education, such as lectures, clinics, and written materials.

Six articles discussed the incorporation of culturally relevant care within breastfeeding promotion activities (Abbass-Dick et al., 2017; Banks, 2003; Hui et al., 2021; Moffitt 2018; Moffitt & Dickinson, 2016; Wagner, 2007). Moffitt and Dickinson (2016) described the role of the nurse in the creation of a culturally relevant photobook and video to share with young

Tłı̨cho̧ women. The video and photobook were produced in efforts to revitalize language and display breastfeeding as the traditional infant feeding practice (Moffitt & Dickinson, 2016). Banks (2003), Hui et al. (2021), Moffitt (2018) and Wagner (2007) discussed the interactive forms of education, including sharing circles and group discussions. Banks (2003), Hui et al. (2021), and Moffitt (2018) discussed the inclusion of community Elders to support breastfeeding experiences. Wagner (2007) reported a nurse facilitated a supportive and informative nutritional program that was heavily utilized by pregnant Indigenous women. Story sharing and group discussions took place in this program, aligning with traditional ways of Indigenous knowing (Banks, 2003).

Finally, Hui et al. (2021) and Abbass-Dick et al. (2017) created digital resources to promote breastfeeding, including social media, a website, online discussion forums and local radio/ TV broadcast (2021). Abbass-Dick et al. discussed the creation of an eHealth resource using a participatory design (2017). Digital support was offered as a solution to mitigate the challenges Indigenous women face in accessing health care services (Hui et al., 2021). Though digital in nature, both interventions aimed to provide culturally relevant breastfeeding support and did so through incorporating traditional teachings advised by Elders and Indigenous mothers (Abbass-Dick et al., 2017; Hui et al., 2021).

3.2.2.2 Hands-On Breastfeeding Support

Hands-on nursing care involved direct, in-person interventions to support breastfeeding among Indigenous women in Canada. Hands-on breastfeeding support by nurses was discussed in ten articles (Cormier, 2014; Gauld, 2009; Hui et al., 2021; Martens, 1994; Martens, 1997; Martens, 2002; Martens & Young 1997, Macaulay, 1989; Moffitt, 2018; Wagner, 2007). The methods of hands-on breastfeeding support discussed in the literature included assistance with latching, assessing breastmilk supply (through hand-expression) and assistance with the application of lactation devices (Martens, 1997; Moffitt, 2018; Gauld, 2009; Wagner, 2007).

Hands-on forms of breastfeeding support from nurses took place in the postpartum period by the CHN and in the acute care setting by the hospital nurse. Hands-on breastfeeding support often led to increased breastfeeding rates when conducted by the CHN (Wagner, 2007). The CHN weighed infants in the home, conducted postpartum assessments and provided hands-on

breastfeeding support, including, strategies for a mother to assess and correct her infant's latch, assess normal breastmilk production and supply, as well as assess the breasts for potential concerns related to breastfeeding (cracked nipples or mastitis) (Macaulay, 1989; Martens 1994; Martens, 1997; Martens, 2002; Martens & Young, 1997; Moffitt, 2018; Wagner, 2007). The CHN played a critical role in a mother's attitude and confidence towards breastfeeding, thus, positively influencing breastfeeding outcomes (Wagner, 2007).

In the acute postpartum phase within 24 hours after delivery (Romano et al., 2010), hospital nurses provided in-person breastfeeding support, which included hands-on assistance with positioning and latching, one-on-one education on low milk supply and the provision of interventions for breastfeeding challenges, such as offering and applying nipple shields and breast pumps (Gauld, 2009; Martens, 1994; Martens, 1997; McKim, 1998; Moffitt, 2018; Wagner, 2007). Hands-on breastfeeding support by the hospital nurse was often described as being helpful and conducive to breastfeeding outcomes by Indigenous women, however, Indigenous women commonly reported some hospital nurses were more helpful and attentive than others (Gauld, 2009; Martens, 1997; Wagner, 2007).

3.2.3 Poor Quality of Nursing Care

Through exploring the data regarding the nursing role in supporting breastfeeding among Indigenous women in Canada, some participants in the research described poor quality of care by some nurses; this theme was identified in ten articles (Cormier, 2014; Crosschild, 2014; Eni et al., 2014; Gauld, 2009; MacQuarrie, 1984; Martens, 1994; Martens, 1997; Moffitt, 2018; Moffitt & Dickinson, 2016; Wagner, 2007). Poor quality of nursing care was categorized into two sub-themes, which included the lack of supportive care by nurses and nurses not adhering to BPGs to support breastfeeding.

3.2.3.1 Lack of Supportive Care

Indigenous mothers in Canada reported some nurses did not provide supportive care, which negatively influenced breastfeeding outcomes (Cormier, 2014; Gauld, 2009; Martens, 1997; Moffitt, 2018; Wagner, 2007). Indigenous mothers in the qualitative research conducted by Cormier (2014), Moffitt (2018) and Wagner (2007), discussed the lack of supportive care by nurses in the hospital setting. Participants reported nurses were rushed and unavailable when

requested by Indigenous women for breastfeeding assistance (Cormier, 2014; Moffitt, 2018). Indigenous mothers who were participants in research conducted by Wagner (2007), stated nurses often declined to assist them with breastfeeding and made judgmental comments that indicated the women should already know how to breastfeed, or the nurse has already shown them how. When nurses in the hospital setting were available to assist with breastfeeding, participants in research by Cormier described some nurses as being forceful and taking over (2014). These actions resulted in women feeling disempowered, and evoked feelings of incompetence, ultimately negatively influencing breastfeeding outcomes (Cormier, 2014). Participants in research by Cormier (2014) and Wagner (2007) described women being discharged from the hospital with barriers to infant feeding having not been properly assessed or addressed in the hospital, such as infants with a poor latch or infants with tongue-ties. Martens' noted discrepancies between nursing and patient understanding of support; in Martens' research, 100% of nurses (n=14) stated they provided breastfeeding information, support, and instruction, while only 44% of mothers (n=36) reported receiving breastfeeding support from a nurse (1997). Lastly, in Cormier's research (2014), women felt disrespected by nurses if they did not choose to breastfeed.

3.2.3.2 Lack of Adherence to BPGs

Seven of the 19 included articles described some nurses implemented interventions that did not align with BPGs to support breastfeeding (Cormier, 2014; Crosschild, 2014; Eni et al., 2014; MacQuarrie, 1984; Martens, 1994; Moffitt & Dickinson, 2016; Wagner, 2007). The literature described some nurses carried out interventions, such as non-indicated supplementation with formula and the introduction of breastfeeding aids, such as nipple shields, without rationale or assessment (Cormier, 2014) These interventions did not align with the BPGs for breastfeeding support and can negatively influence breastfeeding outcomes, such as duration and exclusivity of breastfeeding (Skouteris et al., 2014).

The most common intervention described in the literature was supplementation with formula by nurses without appropriate rationale. Supplementation with formula may be indicated when a baby is not latching, has low blood sugar or an infant is not gaining weight (Bookhart et al., 2021). Seven articles reported nurses supplemented with formula without indication or consent from the mother (Cormier, 2014; Crosschild, 2014; Eni et al., 2014; MacQuarrie, 1984; Martens,

1994; Moffitt & Dickinson, 2016, Wagner, 2007). Supplementation with formula when not indicated is directly linked to early weaning and decreased breastfeeding rates (Bookhart et al., 2021). In the qualitative data collected by Eni et al. (2014) and Crosschild (2014), Indigenous women reported feeling nurses were impatient with the process of breastfeeding; if infants were not latching immediately, formula use would be threatened, or nurses would take infants from their mothers and feed them formula. Crosschild (2014) and Wagner (2007) reported nurses may not have adequate knowledge on normal milk supply in the first days of breastfeeding as nurses often reported low supply as an indication for formula supplementation. The literature also discussed some nurses provided some breastfeeding interventions without assessment or consult with a lactation consultant, such as the introduction of nipple shields and breast pumps (Cormier, 2014). The BPGs for breastfeeding advise the use of lactation aids (nipple shields and breast pumps) only when necessary as they can interrupt breastfeeding processes (Becker et al., 2017).

3.2.4 Lack of Culturally Safe Nursing Care

The literature included in this scoping review revealed nurses in Canada work within a system that maintains practices embedded in colonial legacy (Crosschild, 2014; Eni et al., 2014). As a result, some participants (Indigenous mothers) in the research included in this scoping review described some nurses did not demonstrate culturally safe care. Cultural safety is defined as the provision of health services free of racism and discrimination, where all people feel safe and respected (Indigenous Health, 2017). Culturally safe care empowers individuals to incorporate their identity, culture, and community into their care (Indigenous Health, 2017). Many study participants in the qualitative literature included in this review described experiences and interactions with non-Indigenous nurses that were not culturally safe in nature. This theme was identified in eight articles (Cormier, 2014; Crosschild, 2014; Eni et al., 2014; Gauld, 2009; MacQuarrie, 1984; Moffitt, 2018; Moffitt & Dickinson, 2016; Wagner, 2007).

Both a key informant (a non-Indigenous nurse) and an Indigenous mother in qualitative research conducted by Gauld, described some nurses in the hospital setting would not invest time supporting young Indigenous women with breastfeeding as there was a belief these women would give up once they were discharged (2009). Some nurses were described by Indigenous mothers and key informants as impatient and unkind specifically towards Indigenous women; often Indigenous mothers felt nurses were not as available to support them with infant feeding

based on their race (Gauld, 2009, Crosschild 2014). In Crosschild's research, Indigenous mothers described nurses as "colonial agents", Indigenous women feared the nurses, mainly due to high rates of child apprehension (2014). Indigenous women felt they were being watched and described their experiences in the hospital as being "similar to prison" (Crosschild, 2014 p. 56). Similar feelings were reiterated in Eni's work (2014), wherein women reported feeling controlled by nurses and medical staff.

Hospitals maintained policies that disallowed traditional practices to be carried out by Indigenous families (Crosschild, 2014). Family and community members, such as Elders who usually supported breastfeeding were not allowed to visit mothers in the hospital due to strict policies that restricted how many visitors could come and during what hours of the day (Crosschild, 2014). Participants in data collected by McKim reported nurses would inhibit traditional practices valued by Indigenous women and encourage women to conform to the practices of westernized health care for infant feeding (1998). The lack of cultural safety implemented by nurses negatively influenced breastfeeding outcomes as it perpetuated uncomfortable environments, lack of trust in the nurse-patient relationship and lack of supportive breastfeeding care provision from some nurses (Cormier, 2014; Crosschild, 2014; Gauld, 2009).

Chapter 4

4 Discussion and Implications

4.1 Discussion

The purpose of this scoping review was to examine existing literature to explore the role of the nurse in supporting breastfeeding among Indigenous women in Canada. A total of 19 articles met the inclusion criteria for this review. The major findings revealed that some nurses are implementing interventions conducive to increased breastfeeding outcomes. Firstly, nurses collaborated with Elders and peer counsellors to better support culturally safe and traditional forms of breastfeeding care (Abbass-Dick et al., 2017; Banks, 2003; Cormier, 2014; Hui et al., 2021; Martens, 2002; Moffitt, 2018; Moffitt & Dickinson, 2018; Wagner, 2007). Secondly, nurses have developed and disseminated educational content in a variety of formats for Indigenous women, including breastfeeding promotion activities and hands-on breastfeeding support (Abbass-Dick et al., 2017; Banks, 2003; Cormier, 2014; Eni et al., 2014; Gauld, 2009; Hui et al., 2014; Macaulay, 1989; Martens, 1994; Martens, 1997; Martens, 2001; Martens, 2002; Martens & Young 1997; McKim, 1998; Moffitt, 2018; Moffitt & Dickinson, 2016; Smylie et al., 2016; Wagner, 2007). Additionally, some nurses provided poor quality care, including an overall lack of support and care that did not align with BPGs for breastfeeding (Cormier, 2014; Crosschild, 2014; Eni et al., 2014; Gauld, 2009; MacQuarrie, 1984; Martens, 1994; Martens, 1997; Moffitt, 2018; Moffitt & Dickinson, 2016; Wagner, 2007). Lastly, a lack of cultural safety by some nurses has been identified within the literature included in this scoping review (Cormier, 2014; Crosschild, 2014; Eni et al., 2014; Gauld, 2009; MacQuarrie, 1984; Moffitt, 2018; Moffitt & Dickinson, 2016; Wagner, 2007).

The theme of collaboration has been well documented within nursing literature; collaboration with the interdisciplinary team is part of nursing practice (Orchard et al., 2005). Collaboration with community members in marginalized populations has been identified in the broader literature as a method to strengthen practice and empower communities (Smylie et al., 2016). One of the 2015 calls to action of the Truth and Reconciliation Commission of Canada specifically identified the importance of including Elders and Indigenous healers within the care of Indigenous peoples (Allen et al., 2020). The call-to-action states:

> We call upon those who can effect change within the Canadian health care system to recognize the value of Aboriginal healing practices and use them in the treatment of Aboriginal patients in collaboration with Aboriginal healers and Elders where requested by Aboriginal patients. (Allen et al., 2020 p. 208)

Existing literature extending beyond this scoping review has recognized the value of incorporating traditional practices into care for Indigenous peoples in all areas of healthcare, including the inclusion of Indigenous community members in health care practices (Indigenous Health, 2017).

The theme of breastfeeding education through breastfeeding promotion activities and hands-on support by nurses has been recognized in this scoping review as a contributor to supporting breastfeeding outcomes (Wagner, 2007; Martens, 2002). This finding is consistent with literature beyond this scoping review, which has recognized the pivotal role nurses play in influencing breastfeeding outcomes through their role in educating and supporting mothers throughout the prenatal, intrapartum, and postpartum period (Burgio et al., 2016).

Other findings from this review indicated there are gaps in nursing practice that negatively impact breastfeeding outcomes for Indigenous women in Canada. Nurses were found to be unavailable to support breastfeeding when requested by Indigenous mothers, did not complete thorough assessments and were rushed in their care provision (Cormier, 2014; Wagner, 2007). Similar findings have been uncovered in other Canadian studies that extend beyond this scoping review. Research by Crowley (2014) conducted in an urban Ottawa hospital over several years concluded only 50% of the new mothers felt they received adequate teaching from nurses regarding their discharge, maternal-infant health, and postpartum care. The current nursing shortage continues to exacerbate these issues as nurses have decreased time at the bedside for one-to-one care (Ahmed & Bourgeault, 2022).

This scoping review revealed nurses were found to carry out practices that were not in alignment with BPGs for breastfeeding support. Formula supplementation without rationale by nurses has been going on for decades according to the literature collected for this scoping review; the first-time supplementation without rationale was reported in 1984 in MacQuarrie's research. Similar findings have been echoed in other research beyond the scope of this review; it has been

suggested that formula supplementation by nurses commonly occurs when not indicated and is often seen as a “quick fix” for feeding support when an infant is not settling or latching with ease (Walker, 2015).

The final key theme identified in this scoping review revealed some nurses lack cultural safety in their practice when caring for Indigenous women. Nurses have worked within the constraints of a system rooted in colonial legacy which has led to discriminatory attitudes maintained by some nurses towards Indigenous women, it is not uncommon for nurses to both, “internalize and adopt patriarchal and racialized norms, resulting in the construction of Indigenous women as second-class citizens” (Crosschild, 2014, p. 57). Beyond the findings of this scoping review, the lack of cultural safety in Canadian health care is well documented (Gurm & Cheema, 2013). Extensive research exists on the maltreatment and discrimination of Indigenous peoples within Canada’s health care system at large; this issue is not solely related to maternal nursing care and breastfeeding support (Gabel et al., 2017).

4.1.1 Limitations

While rigorous methods were adhered to for this scoping review, it is not without limitations. Firstly, this research lacked equal representation of all Indigenous groups; all research except for the studies conducted by Moffitt (2016) and Moffitt and Dickinson (2018) focused on First Nations groups. Furthermore, five of the 19 included articles were the work of one author in one geographical location which had a strong influence on the findings of this scoping review. An additional limitation to address is that each theme was identified based on the analysis of only one reviewer. Moreover, the articles that were included in this review were not primarily assessing the nursing role in breastfeeding support, rather, only discussed the nursing role as it contributed to broader research objectives. As a result, the depth and description of nursing action was, at times limited, which created the risk that the role of the nurse in its entirety was not adequately captured in this scoping review.

This research largely focused on negative health outcomes for Indigenous peoples. This was a limitation as the ongoing portrayal of Indigenous peoples in a negative light risks the continued perpetuation of stigmatized belief systems about Indigenous peoples. Finally, the risk for bias

related to my position as a non-Indigenous nurse researcher is necessary to recognize as a study limitation.

4.2 Implications

This scoping review has identified gaps in nursing practice related to breastfeeding support for Indigenous women in Canada. Mainly, the lack of cultural safety by some nurses and the poor quality of nursing care delivery by some nurses requires attention from nursing researchers, educators, and policy makers (Crosschild, 2104; Cormier, 2014). In acknowledging and understanding the gaps in nursing care, there is opportunity for growth and development in practice to better support the care provision of Indigenous women in Canada.

Canadian nurses supported Indigenous women with breastfeeding through collaborative approaches to care, educational resource development and delivery as well as hands-on breastfeeding support (Hui et al., 2021; Martens, 2002). The nurse has been identified as an influential caregiver in breastfeeding decision making (Wager, 2007). This research has uncovered the strong foundation of care for breastfeeding offered by the CHN (Moffitt, 2018). Educational interventions offered by nurses in collaboration with Elders and peer counsellors are impactful, especially when culturally relevant resources and traditions are incorporated (Abbass-Dick et al., 2017; Banks, 2003). There is a need to increase the breadth and availability of services that have been identified as working well, including the peer counsellor programs, home visiting by the CHN and the implementation of educational programs and resources that incorporate traditional practices (Abbass-Dick et al., 2017; Martens, 2002; Moffit; 2018).

In addition to fortifying what nurses are currently doing well, there is a need to develop broader, sustainable, upstream solutions to tackle systemic barriers, such as advocating for the implementation of true self-determination for Indigenous peoples (Lavoie et al., 2015). This will be discussed in the implications for policy section of this review. Breastfeeding rates will not increase until the social determinants of health (SDoH) are addressed, especially issues stemming from poverty (Eni et al., 2014). Dynamic solutions and efforts within multiple disciplines are necessary to adequately address low breastfeeding rates in Indigenous communities across Canada. Nurses have the potential to create change as both frontline workers

and advocates. In this section, study implications will be explored in the areas of research, education, practice, and policy.

4.2.1 Implications for Research

The literature discussed the need for culturally safe care strategies to be taught to nurses and implemented within the health care system (Gauld, 2009). The literature recognized a need for harm reduction and trauma-and-violence informed care (TVIC) strategies for breastfeeding to be implemented in order to create meaningful change for Indigenous peoples wishing to breastfeed (Eni et al., 2014). Based on the themes uncovered in this scoping review, trauma-and-violence informed breastfeeding support by nurses for Indigenous women is a knowledge gap (Crosschild, 2014). Research by Sperlich et al. (2017) recognized intergenerational trauma can result in poorer postpartum health and negatively impact maternal-infant bonding and breastfeeding. Trauma-informed care has the potential to improve both maternal and infant health (Sperlich et al., 2017). Research is beginning to investigate these relationships. Though trauma-informed breastfeeding support by nurses has been identified as a need, this subject matter has not been explored in nursing literature as it pertains to breastfeeding in Indigenous populations (Crosschild, 2014). Four articles reported the need for traditional methods of care to compliment trauma-informed breastfeeding support (Cormier, 2014; Crosschild, 2014; Gauld, 2009; Eni et al., 2014).

There is a need for more research conducted through participatory action design on the topic of breastfeeding among Indigenous populations in Canada (Smylie et al., 2016; Willows, 2012). Participatory action research methods should be prioritized when researching marginalized or less represented populations, such as Indigenous populations (Smylie et al., 2016). Participatory action research empowers communities and allows for community and individual ownership of the research outcomes; this sense of ownership leads to sustainable change within populations and communities (Smylie et al., 2016). Cormier described the need for research to be conducted “with” Indigenous women, rather than “on” Indigenous women (2014). The design of participatory action research creates a partnership which enables participants to have a voice in interventions and outcomes (Minkler & Wallerstein, 2008). Research outcomes and interventions can be better aligned with the needs of the community (Abbass-Dick et al., 2017).

In recognizing the need for breastfeeding support for Indigenous peoples to be conducted with culturally safe, harm reduction and TVIC principles applied (Eni et al., 2014; Gauld, 2009), there is an identifiable need to expand research in this area guided by participatory action design. The concepts of cultural safety, harm reduction and TVIC are interwoven and support one another at a practical level, ultimately, promoting equity (EQUIP, 2017). The application of TVIC in practice ensures the care provider is considerate of a patient's experience with systemic and/ or interpersonal violence and provides a safe environment for care provision (EQUIP, 2017). There is an indication for future research utilizing participatory action design on the topic of breastfeeding support and TVIC principles. This research could lead to the development of a framework that effectively supports breastfeeding among Indigenous women as Indigenous women would have the opportunity to direct and inform the research to ensure their needs are being met (Smylie et al., 2016). Harm reduction, TVIC and culturally safe principles can be more successfully woven into practice when research is conducted on these concepts as they apply to breastfeeding support.

4.2.2 Implications for Education

Gauld's research noted Indigenous women living in poverty were often treated as though breastfeeding methods could simply be taught by nurses (2009). Though nurses have potential to influence breastfeeding outcomes through supportive methods (Balogun et al., 2016), education alone is not an effective intervention when women are facing extreme demands in their daily lives, often stemming from poverty (Gauld, 2009). This example reflects the gap in nursing knowledge on the topic of how systemic barriers influence breastfeeding outcomes and highlights the need for education in this area for nurses in Canada.

In Ontario, in 2021 the Registered Nurses' Association of Ontario (RNAO) mandated the implementation of an Indigenous health course into nursing curricula. Though this is as an actionable step towards reconciliation, there is a need for the entire nursing body to receive education on Canada's residential school system and the impacts of colonialism and intergenerational trauma (Browne et al., 2016). Aguiar and Halseth (2015), reported there are challenges in interrupting cycles of intergenerational trauma among Indigenous populations when the "surrounding environment views dysfunction as the norm" (p. 21). The health care system, including some Canadian nurses, are part of this environment (Crosschild, 2014); many

Canadian nurses have not received education on this topic and maintain stigmatized beliefs and discriminatory attitudes towards Indigenous populations (Browne et al., 2016). To create change within the health care system at large, policies requiring Canadian nurses and nursing students to be educated on the history of the residential school system, colonialism, and the influences of intergenerational trauma on Indigenous health. Beyond the education on Canada's colonial history, Canadian nurses and nursing students should also be required to receive training on cultural safety (Cormier, 2014). Cultural safety training is identified within several of the 94 Calls to Action from the Truth and Reconciliation Commission (Truth and Reconciliation Commission of Canada, 2015). The Canadian Nurses Association (CNA) has committed to providing this education to nursing students, but not the rest of the nursing body (CNA, 2021).

4.2.3 Implications for Practice

Implications for practice include addressing the current gaps in care provision. This section will consider how nurses can work towards cultural safety and better support the accessibility of care for Indigenous peoples.

This scoping review uncovered areas wherein nurses did not carry out best practices for breastfeeding support among Indigenous women. Breastfeeding interventions by nurses that are not evidence-informed can have cascading, detrimental impacts on breastfeeding outcomes (Bookhart et al., 2021; Chantry et al., 2014). Research by Gavine et al. (2016) found there is a desperate need for evidence-based education and training interventions to better equip nurses with the knowledge and skill to competently support breastfeeding. There is an indication for routine updating of breastfeeding knowledge through course participation for Canadian nurses working with Indigenous populations and non-Indigenous populations (Chalmers, 2013; Cormier, 2014). A potential option for improvement includes perinatal nurses being required to update and refresh their breastfeeding knowledge throughout their careers in alignment with the evolution and change of best practice standards over time.

Breastfeeding care for Indigenous women could be strengthened by incorporating traditional ways of knowing in care provision (Muirhead, 2017). Strategies uncovered in the literature include, nurses learning to "talk less and listen more" when caring for Indigenous women (Cormier, 2014 p. 202). The importance of nurses listening was brought up in research by

Cormier (2014) and Crosschild (2014). Storytelling is a traditional form of knowledge translation in Indigenous communities (Hui et al., 2021). Cormier reported Indigenous women would like nurses to listen to the stories they have to share to better understand their needs holistically; this would allow nurses to see beyond the topic of breastfeeding alone but also recognize associated challenges, such as the stress of returning to an unsafe home or food insecurity (2014).

Indigenous women urged their non-Indigenous nurses to engage in community events to learn and immerse themselves in traditional practices and celebrations of Indigenous communities (Cormier, 2014). Nurse participation in Indigenous events could lead to understanding of the values and cultural norms of Indigenous peoples (Banks, 2003). This could create a stronger connection between nurses and Indigenous peoples, thus enhancing the provision of culturally safe care (Banks, 2003).

Finally, many Indigenous women recognized challenges with appointment and prenatal class accessibility (Hui et al., 2021). Women reported challenges such as the inability to leave work or school; have multiple children at home; not having viable options for transportation; residing in rural areas great distances away from clinics; facing road closures; and unsafe travelling due to weather conditions (Hui et al., 2021). Indigenous women reported the desire for increased flexibility from health care providers, including extended clinic hours such as evenings or weekends (Cormier, 2014). Digital resources and remote care options were positively received, as noted in research by Abbass-Dick et al. (2017) and Hui et al. (2021). Options to expand on digital interaction and breastfeeding support could be explored. Research indicated the desire for more interaction with the CHN (Wagner, 2007). Expanding the CHN's role in breastfeeding support to offer digital breastfeeding support through video call appointments is an intervention that could be explored. A video call would potentially eliminate the accessibility challenges faced both by the Indigenous mother and home visiting CHN (Hui et al., 2021), and may hold promise for supporting breastfeeding Indigenous women who live remotely.

4.2.4 Implications for Policy

The policy changes that need to arise to better support breastfeeding and overall wellness must be driven by Indigenous people themselves, not what Canadian governing bodies *think* Indigenous peoples need (Lavoie et al., 2015; Smylie et al., 2016). This section will outline two

key areas requiring attention from policy makers, including the need for true self-determination among Indigenous populations in Canada and policy to support the increase of Indigenous identifying nurses. These areas have been identified through research that has prioritized the needs and voices of Indigenous communities.

For sustainable improvement in health outcomes, including breastfeeding, to occur the facilitation of self-determination for Indigenous populations must be enabled. True self-determination allows Indigenous peoples the ability to identify needs and employ the associated policies within their own communities. In Canada, Indigenous peoples have the right to self-determination but are bound by heavy oversight and involvement of the federal government in policy development, allocation of funding and availability of resources to carry out true self-determination (Lavoie et al., 2015). Currently, Indigenous peoples are largely excluded from the decision-making processes for their communities; decisions are made by governing bodies on behalf of the community at large with little input from Indigenous peoples (Lavoie et al., 2015). Often, policies developed reflect colonized standards for health and wellness. For Indigenous peoples and communities to heal and achieve better health outcomes, true self-determination must be supported (Lavoie et al., 2015).

In efforts to understand what true self-determination looks like, the Nuka System in Alaska provides an exemplary model that has received international recognition (Gottlieb et. al., 2013). The system has been created both by and for the Nuka people, who emancipated from a government owned and led system (Gottlieb et. al., 2013). It is through this bottom-up approach of political restructuring that the necessary cascade of change in policy can occur. Self-determination promotes the restoration of cultural identity, leading to healthier individuals and communities. Supporting self-determination allows for cultural attachment to be carried out, reducing dislocation, identity confusion and emotional emptiness (Clarkson et al., 2015). In supporting healthier individuals and connected communities, traditional family processes are more likely, such as breastfeeding (Eni et al., 2014).

The need for expanded nursing services in Indigenous communities was identified throughout the research; Indigenous women reported breastfeeding cessation related to a lack of nursing support (Cormier, 2014). There are currently incentives in place to encourage nurses to travel to

rural and remote areas in Canada (Indigenous Services Canada, 2022). A more sustainable approach to ensure Indigenous communities have consistent, culturally safe nursing care is required and can be achieved through increasing the numbers of Indigenous identifying nurses (Crosschild, 2014). The research suggested Indigenous students in secondary and post-secondary school could participate in the development of health care programs and shadow in the health care field, this may encourage Indigenous students to consider entering nursing or other health care professions (Cormier, 2014). There is a need for policy to increase the admission rates and support of Indigenous-identifying students into nursing school. Cormier (2014), recommended nursing educators take extra time to engage with Indigenous-identifying nursing students to ensure the learning environment is inclusive and culturally safe. Nursing educators should be aware of resources for Indigenous peoples in their communities and take part in Indigenous events to have the ability to better support, empower and understand their Indigenous students (Cormier, 2014). In increasing the number of Indigenous nurses, culturally relevant and traditional methods of care can be better incorporated into practice to support breastfeeding (Abbass-Dick et al., 2017).

4.3 Conclusion

This scoping review of the literature gathered data from 19 articles that met the inclusion criteria. The 19 included articles answered the research question, “What is known from the existing literature about the role of the nurse in supporting breastfeeding and breastfeeding promotion among Indigenous women in Canada?” Nurses demonstrated care and interventions for breastfeeding support, including: collaborating with community members; creating and disseminating educational content to promote breastfeeding; and delivery of hands-on breastfeeding support. The gaps in nursing care were also identified and included: lack of supportive methods of care, not adhering to BPGs for breastfeeding support, and lack of practicing culturally safe care. These actions and behaviours impeded breastfeeding outcomes (Crosschild, 2014).

Implications for enhancing the role of the nurse to better support breastfeeding in Indigenous populations were explored in the areas of research, education, practice, and policy. This scoping review has highlighted the importance of acknowledging the systemic barriers impeding optimal health outcomes for Indigenous peoples (McQueen et al., 2015). These barriers are rooted in

historical contexts and create a variety of challenges for Indigenous peoples, including poor access to health care, discrimination within the health care system and a lack of the social support required to obtain optimal health (Romano et al., 2019). The decision to breastfeed as well as one's ability to breastfeed is multifactorial and complex (Balogun et al., 2016). The nurse has the potential to influence breastfeeding decision making and breastfeeding outcomes, but it is necessary to acknowledge the variety of contextual factors that exist (Balogun et al., 2016).

This research contributes to the field of nursing as data has not been collected specifically on the role of the nurse in supporting breastfeeding in Indigenous populations in Canada. Though the topic has been touched on within broader research endeavors, this topic alone has not been addressed. This research provides a foundation in understanding the areas where nurses are providing strong and meaningful interventions for care, as well as what needs to be expanded upon. The stark disparities in the health of Indigenous and non-Indigenous people in Canada require immediate attention. Nurses have the ability to be agents of change and have a role in acknowledging, addressing and working towards true reconciliation. Nursing praxis incorporates a pattern of knowing that recognizes how social, political, and cultural elements influence health outcomes (Chinn & Kramer, 2018). This pattern of knowing, referred to as emancipatory knowing, calls nurses to work towards reducing inequities and power imbalances. Nursing practice is also driven by a strong moral code; nursing action considers, "what ought to be done" through compassion and empathy (Chinn & Kramer, 2018 p. 7). The nursing body has an opportunity to demonstrate these characteristics that exist at the heart of our complex, multifaceted practice. It is through this process that health and wellness outcomes for Indigenous peoples will improve.

The National Center for Truth and Reconciliation's spirit name is bezhig miigwan, meaning "one feather". This spirit name recognizes the importance of connectedness, reminds us we are all one, and calls upon all Canadians to work together to achieve true reconciliation (Truth and Reconciliation of Canada, 2015). Indigenous people in Canada have survived through generations of unspeakable hardship, proving time and time their resilience. Indigenous peoples deserve culturally safe, empowering care by reflexive nurses who will work as partners to restore traditional practices that promote health and wellbeing, including breastfeeding (Schroeder, 2019).

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Appendix A

List of Abbreviations

BFI: Baby-Friendly Initiative

BPG: Best Practice Guideline

CHN: Community Health Nurse

CNA: Canadian Nurses Association

CST: Critical Social Theory

PHN: Public Health Nurse

RN: Registered Nurse

RNAO: Registered Nurses' Association of Ontario

SIDS: Sudden Infant Death Syndrome

SDoH: Social Determinants of Health

TVIC: Trauma-and-Violence Informed Care

WHO: World Health Organization

Appendix B

Search Strategy

1	Indigenous.mp./ or exp Indigenous Canadians/ exp Indigenous people*/ or exp Indigenous population*
2	Canadian Indian*.mp./ or exp Indians, North American
3	Inuit.mp. / or exp Eskimo
4	Métis.mp.
5	First Nation*.mp./ or exp Native/ or exp Native American
6	Aboriginal.mp./ or exp Aboriginal Canadian
7	Canada.mp. or exp Canada/
8	Alberta.mp. or exp Alberta/
9	British Columbia.mp. or exp British Columbia/
10	Manitoba.mp. or exp Manitoba/
11	New Brunswick.mp. or exp New Brunswick/
12	Newfoundland and Labrador.mp or exp Newfoundland and Labrador/
13	Northwest Territories.mp. or exp Northwest Territories/
14	Nova Scotia.mp. or exp Nova Scotia/
15	Nunavut.mp. or exp Nova Scotia/
16	Ontario.mp. or exp Ontario/
17	Prince Edward Island.mp. or exp Prince Edward Island/
18	Quebec.mp or exp Quebec/
19	Saskatchewan.mp. or exp Saskatchewan/
20	Yukon.mp. or exp Yukon/
21	Breastfeeding.mp. or exp Breast Feeding/
22	Infantfeeding.mp.
23	1 or 2 or 3 or 4 or 5 or 6
24	7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20
25	21 or 22
26	23 and 24 and 25

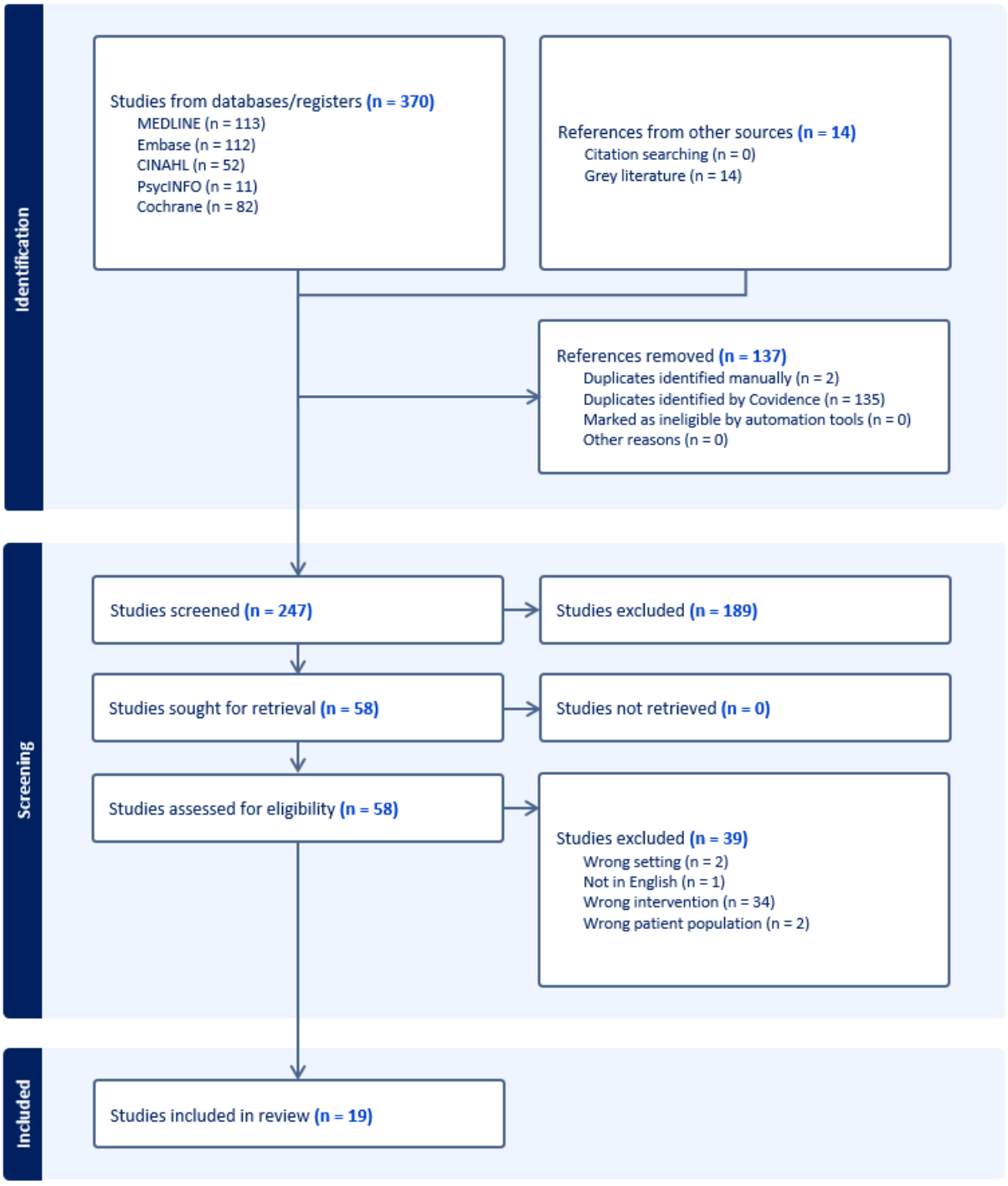
Appendix C

Table 1. Exclusion Rationale Table

Lead Author and Year	Rationale
McIsaac 2017	Excluded - Wrong Intervention (No identifiable role of nurse)
Romano 2019	Excluded - Wrong Intervention (No identifiable role of nurse)
Yonemoto 2021	Excluded - Wrong patient population
Schaefer 1986	Excluded - Wrong Intervention (No identifiable role of nurse)
Bao 2019	Excluded - Wrong Intervention (No identifiable role of nurse)
Paynter 2019	Excluded - Wrong Intervention (No identifiable role of nurse)
McQueen 2013	Excluded - Wrong Intervention (No identifiable role of nurse)
Clarke 1986	Excluded - Wrong Intervention (No identifiable role of nurse)
McIsaac 2015	Excluded - Wrong Intervention (No identifiable role of nurse)
Palmer 2020	Excluded - Wrong Setting
Schroeder 2019	Excluded - Wrong Intervention (No identifiable role of nurse)
Bowd 2005	Excluded - Wrong Intervention (No identifiable role of nurse)
Centre 2017	Excluded - Wrong Intervention (No identifiable role of nurse)
Ye 2012	Excluded - Wrong Intervention (No identifiable role of nurse)
Public Health Agency of Canada, 2014	Excluded - Wrong Intervention (No identifiable role of nurse)
McIsaac, 2014	Excluded - Wrong Intervention (No identifiable role of nurse)
O'Driscoll, 2011	Excluded - Wrong Intervention (No identifiable role of nurse)
Martens, 2016	Excluded - Wrong Intervention (No identifiable role of nurse)
Willows, 2012	Excluded - Wrong Intervention (No identifiable role of nurse)
McIsaac, 2015	Excluded - Wrong Intervention (No identifiable role of nurse)
Lebrun, 1993	Excluded - Wrong Intervention (No identifiable role of nurse)
McIsaac, 2013	Excluded - Wrong Intervention (No identifiable role of nurse)
Muirhead, 2017	Excluded - Wrong Intervention (No identifiable role of nurse)
Muhajarine, 2012	Excluded - Wrong Intervention (No identifiable role of nurse)
Jenkins, 2004	Excluded - Wrong Intervention (No identifiable role of nurse)
Cidro, 2015	Excluded - Wrong Intervention (No identifiable role of nurse)
Langner, 1991	Excluded - Wrong Intervention (No identifiable role of nurse)
McQueen, 2015	Excluded - Wrong Intervention (No identifiable role of nurse)
Young, 2002	Excluded - Wrong Intervention (No identifiable role of nurse)
Anderson, 2015	Excluded - Wrong patient population
Sauve, 1987	Excluded - Wrong Setting
Black, 2008	Excluded - Wrong Intervention (No identifiable role of nurse)
Kuperberg, 2006	Excluded - Wrong Intervention (No identifiable role of nurse)
Monteith, 2021	Excluded - Wrong Intervention (No identifiable role of nurse)
Koehoorn, 2008	Excluded - Wrong Intervention (No identifiable role of nurse)
Dufour, 1984	Excluded - Not in English
RNAO, 2018	Excluded - Wrong Intervention (No identifiable role of nurse)
Wilson, 2000	Excluded - Wrong Intervention (No identifiable role of nurse)
McIssac, 2011	Excluded - Wrong Intervention (No identifiable role of nurse)

Appendix D

Prisma Flowchart



Appendix E

Table 2. Characteristics Chart

Article ID	Lead Author, Year of Publication, Origin	Purpose of Study	Study Population and Sample	Study Design, Methods, and Measurement	Study Outcomes
1	Abbass-Dick et al. 2017 Ontario, Canada	In partnership with Indigenous communities, an eHealth breastfeeding resource was developed with Indigenous cultural relevance in mind. This study aimed to understand the effectiveness of this free resource for both families and health care providers.	- Indigenous mothers with breastfeeding experience or plans to breastfeed Phase 1 (*n*=9) Phase 3 (*n*=10) - Committee members included health care providers involved in breastfeeding support services for Indigenous peoples (*n*=9)	- Mixed-Methods - Participatory Study - Three phases: 1. Indigenous mothers provide insight on culturally relevant resource development 2. Committee members review and work with mothers to create eHealth resource 3. Resource is evaluated by Indigenous mothers	Nurses collaborated with members of the interdisciplinary team and Indigenous mothers in developing an educational breastfeeding support eHealth resource. Nurses identified the need for culturally relevant material. A culturally relevant resource was designed and well-liked by Indigenous mothers/ families on evaluation. The utilization of a participatory design in the development of interventions, services and programs in Indigenous communities allowed for restoration and promotion of cultural identity and belief systems. The identified needs of Indigenous peoples were met.
2	Banks 2003 Quebec, Canada	Due to the trend of low breastfeeding rates in the community of Kanesatake, a breastfeeding promotion initiative was introduced in the community in	- Data on breastfeeding rates in the entire Mohawk community of Kanesatake, (Average of 15 – 17 births per year)	- Mixed-Methods - Pre- and post-intervention breastfeeding rates assessed - Interviews conducted to gain understanding of the factors influencing infant	Rates of breastfeeding at birth in 1995 were 32%, dropping to 19% by four months. In 2001, rates increased to 75% breastfed during the first week of life and 42% maintaining breastfeeding by four months of life. In 1993, the community hired it's first nurse. The nurse noted low breastfeeding rates, and recognized

		efforts to re-establish breastfeeding and raise community awareness on the benefits of breastfeeding.		feeding decisions	intervention for breastfeeding support required. A nurse initiated this program and recognized the need for culturally based interventions. Interventions for breastfeeding promotion included: - Education on breastfeeding provided to mothers as well as extended family. - Breastfeeding education shared in the context of psychosocial and spiritual wellbeing. - Cultural considerations, including teaching through traditional languages and interactive teaching methods opposed to westernized interventions (lectures, clinic visits written material). - Interventions were rooted in creating a community-based support network (educating aunties/ peer counsellors, incorporating Elders and developing a core group of breastfeeding women to establish peer support and make breastfeeding evident within community).
3	Cormier 2014 Nova Scotia, Canada	This thesis aimed to understand the infant feeding experiences of Mi'kmaw women. Mi'kmaw mothers have a considerably lower breastfeeding rate than the rest of the population in Nova Scotia. There was a need to assess for potential gaps in health care provision to	- Purposeful sampling of First Nations mothers (*N*=22)	- Qualitative Feminist Phenomenological methodology - Data obtained through conversational interviews and talking circles	Women in the study reported feeling pressure to breastfeed and disrespected by nurses if they did not choose to breastfeed. Study participants reported feeling the nurses were rushed. When 1:1 support was available, women preferred learning by practicing breastfeeding (having a nurse watch and give advice). Women felt the nurses would take over, pushing baby at the breast. Women were often provided with pamphlets and literature supporting breastfeeding when they were unavailable to help. Due to a lack of

		ensure culturally care is being provided to Mi'kmaw women and infants. There was a need to address culturally safe institutional, provincial, and federal policies.			time/ staffing, pamphlets were a "shortcut" to hands on or 1:1 support. Women would not have a proper assessment before interventions such as breast pumps and nipple shields were introduced by nurses. All participants stated more home visits postpartum would have been beneficial to support breastfeeding; many felt there was limited support for infant feeding post discharge in their home communities. Women reported being discharged with feeding issues/ unidentified barriers, such as a poor latch or tongue-tied infant. Most participants felt more Indigenous nurses could make a difference to address the challenges of language barriers and provide more culturally safe care.
4	Crosschild 2014 Alberta, Canada	This study explored urban Indigenous mothers' perceptions of nursing care in the postnatal period. This study aimed to describe postnatal nursing care, collect data that may improve health programs for Indigenous mothers and families, and uncover culturally safe methods to inform postnatal	- Purposive sampling - Indigenous mothers interviewed until saturation met (*N*=7)	- Qualitative Indigenous Research Methodology - Gatherings were held followed by individual interviews. - Data was collected through transcription	Urban Blackfoot mothers describe nurses as "colonial agents". Many women describe negative experiences in the hospitals with nurses through the policies and procedures. Women felt like they were being examined and experienced emotions rooted in fear (mainly, fear of child apprehension). Mothers express negative experiences when a colonial narrative was being pushed on them through the various nursing policies and procedures. Being closely watched, "like being in prison". Hospital policies often enforced by nurses maintain strict visitor policies

		nursing care.			that disallow multiple visitors. This inhibited visits from grandmothers, elders, aunties etc. These individuals traditionally play a crucial role in supporting women throughout and after delivery, with a variety of care, including breastfeeding. Nurses did not demonstrate adequate knowledge of breastmilk supply, often indicating formula supplementation was indicated early on due to low supply. Nurses would use threatening language and would not listen to women, rather, make judgements purely based on objective data. This study identified several areas where nursing and health care must develop to establish culturally safe care to Indigenous women in the postpartum period. There is a need to recognize the disadvantages associated with utilizing traditional Western approaches to health care and research when working with Indigenous populations. It is critical Indigenous research methodologies are presented and taught to students carrying out nursing research. It is imperative Canadians critically think about the objectives associated with colonialism and how current practice and policy continues to disadvantage Indigenous peoples. There is an identifiable need for more Indigenous nurses. Nursing education must evolve to incorporate teaching on gender

					violence born out of colonial legacy to provide compassionate care. Nurses should be critically reflecting on the attitudes and beliefs held that are deeply embedded within individuals and society at large.
5	Eni et al. 2014 British Columbia, Ontario and Manitoba, Canada	The purpose of this study was to explore how First Nations women experience breastfeeding. This study aimed to better understand the challenges and strengths of breastfeeding among this population.	- Purposive sampling - Women in seven First Nations communities (*N*=65)	- Indigenous Feminist Qualitative Methodology - Focus groups and semi-structured interviews taking place in three Canadian provinces (BC, Manitoba, Ontario) over the year of 2010	Breastfeeding education from nurses impacted a mother's perception of the challenges associated with breastfeeding and helped with patience and understanding of the process. Women felt pressured to breastfeed, described nurses as not having patience to work with them to support the process. Women state if infants did not latch immediately, formula supplementation would be threatened, or nurses would take infants and provide formula. The nursing role in birth evacuation was discussed; women felt "controlled" by medical staff. There is little empathy for the challenges associated with the process that influence breastfeeding, including stress, lack of privacy, worry about other children at home, uncomfortable environments. Women described what they were lacking from nursing and particularly note the need for trauma-informed breastfeeding support and traditional teachings to compliment breastfeeding support. Barriers to breastfeeding include history of residential school attendance, history of physical, sexual, or psychological trauma, birth evacuation, and teen

					pregnancy. Most women reported feeling unprepared and unsupported for the challenges associated with breastfeeding. Partners had very strong influence on breastfeeding due to lack of community support. When a history of physical and/ or sexual trauma is present women tend to dissociate from self and their body, negatively influencing breastfeeding. Many women were taught their bodies are dirty, the female body is not something that should be thought about, shown or used, as there is a heavy association with shame. Participants describe the need for women to relearn how to bond with their children due to the implications of intergenerational trauma. SDoH must be addressed; poverty is at the root of many issues in First Nations communities.
6	Gauld 2009 Ontario, Canada	This thesis aimed to understand the perspective of urban Indigenous women's experiences with infant feeding. This research aimed to understand the implications of the universal Baby Friendly Initiative and how this policy impacts a marginalized	- Indigenous mothers (*n*=7) and key informants (*n*=7) including nurses, social workers, community support workers.	- Qualitative Feminist methodology - Individual in-depth interviews took place with all seven mothers and all seven key-informants.	Nurses were described as having both positive and negative influences on infant feeding choices. Some nurses were often unavailable to assist with feeding while some nurses supported breastfeeding in the hospital setting through education and hands-on assistance. Most women felt pressured to appease nursing staff and breastfeed. Mothers and nurses note there is a lack of support for Indigenous mothers.

		population.			Nurses and mothers note bottle feeding is a “dirty word” and is associated with shame. Nurses noted there was a need for improved education and awareness on the impact of trauma and breastfeeding and harm reduction strategies on breastfeeding. Nurses are restricted in offering information on bottle feeding. Nurses and mothers interviewed felt this negatively impacts outcomes for women who are not breastfeeding for any reason. Study participants associate breastfeeding with “good mothering”. Key informants felt current breastfeeding policy did not address the structural and societal barriers that may be present when one makes infant feeding decisions. This contributes to mothers feeling poorly if they use formula, there is a “moral imperative” to breastfeed.
7	Hui et al. 2021 Manitoba, Canada	This study assessed the feasibility and effectiveness of a prenatal education program in rural and remote Indigenous communities. The program utilized a variety of mediums including social media, website, and local radio/	- Pregnant women from three participating communities: Sagkeeng and Sandy Bay (two rural Ojibwe communities, 120 – 180 km from Winnipeg) and Garden Hill, (remote fly in Ashininew First Nations community 600 km from Winnipeg).	- Mixed-Methods - Quantitative data included comparing breastfeeding rates in all three communities pre- and post-educational interventions - Qualitative data collected through surveys where open-ended questions regarding program	Participants felt well connected and supported through the online program. Group story telling took place within the chat setting; this traditional education method allowed for enhanced cultural identity and feelings of belonging to occur. Prenatal and postnatal nurses provided care to pregnant and postpartum women in the three communities. Nurses collaborated with CPNP

		TV broadcast to promote pregnancy health and breastfeeding.	- Mother-infant dyads (N=231) assessed for breastfeeding outcomes after intervention implemented.	satisfaction and feasibility were explored.	(Canada Prenatal Nutrition Program) workers and peer counsellors who taught prenatal classes. Nurses also collaborated with Elders and peer counsellors to facilitate and create educational resources. "Question and Answer" with nurse online through the website took place. This was well received, women felt well supported by this feature. Many women in more remote areas appreciated expanded support opportunity as often factors such as road conditions, lack of transportation, distance to prenatal education site, and lack of childcare at home are common barriers to not attending prenatal classes or appointments. Nurses and peer counsellors complete home visits and documented breastfeeding duration. Participants felt well connected and supported through the online program. Group story telling took place within the chat setting; this traditional education method allowed for enhanced cultural identity and feelings of belonging to occur. Breastfeeding rates pre and post intervention: - Sagkeeng: 23% pre intervention, 67% post intervention. - Garden Hill: 43% pre-intervention, 57% post. - Sandy Bay: 34% pre-intervention, 35% post intervention.
8	Macaulay et al.	This research aimed to uncover	- Mothers in the community	- Mixed-Methods	CHN completed a home visit within the first three days of infant life.

	1989 Quebec, Canada	breastfeeding rates and understand the factors that influence infant feeding decisions to better support and promote breastfeeding in the community.	registered under the Kahnawake Mohawk Law (*N*=77) who had an infant born between July 1, 1985, and June 30, 1986	- Data collected in person or over telephone through questionnaire	Prenatal CHN provided oral teaching in stages of pregnancy and provided literature and pamphlets to reinforce teaching. Breastfeeding rates increased to 64% by 1986 from 45% in 1978. Duration of breastfeeding also improved. Breastfeeding is associated with birthweight, supportive father, and previous breastfeeding experience. In this community, women do not perceive professional medical advice as an important contributor to breastfeeding decision making, breastfeeding decisions occur in a socio-cultural context. More than half of all study participants reported they did not receive advice on infant feeding from friends, family, or health professionals. All breastfeeding mothers reported choosing to do so based on the health benefits for the baby.
9	MacQuarrie 1984 Ontario, Canada	This study aimed to explore health and nutrition among Ojibway infants and children of Ojibway in north-western Ontario. This study determined the factors that support breastfeeding as well as explore the microenvironment (role of mother,	- Phase 1 (*N*=40) Group A (*n*=20) consisted of children under 2.5 years old from Kenora with history of hospital admission due to infectious disease and Group B (*n*=20) consisted of children under 2.5 years old from Kenora with no history of infectious disease or hospital admission - Phase 2 (*N*=100)	- Mixed-Methods Ecological Framework - Clinical data collection (biomarkers, dietary intake record, health record analysis) on two groups (Groups A and B) - Ethnographic research (interviews with parents and observation of environments) and cross-sectional survey (structured interviews)	72% of women initiated breastfeeding while in the hospital; all newborns were given glucose water. 9.4% were supplemented further with formula. By the time mothers were home with infants, 55% exclusively breastfed. In the hospital setting, free formula samples were distributed. All hospital staff were white; evidence of stereotyping contributing to poorer breastfeeding support for Indigenous mothers.

		household) and macroenvironmental (social, cultural) influences on breastfeeding.	mothers with infants/ children less than two years of age. Must live on the seven Reserves in the Kenora (excludes parents of children studied in phase 1).		Indigenous women were unprepared for labour and childbirth and felt uncomfortable in the hospital environment. There is a lack of care in the community upon discharge for ongoing breastfeeding support. Environments are not supportive to breastfeeding; physical and social environments are overcrowded and lack privacy. Bottle feeding is more commonly seen in social settings, resulting in a lack of peer support; breastfeeding is not seen as the norm. Interrupted family dynamic and roles due to colonial history have created a cycle that lacks teaching for breastfeeding and child rearing intergenerationally. There are high rates of single adolescent mothers, alcoholism, and child apprehension among the population, all which negatively influence breastfeeding. Culturally, women consider breasts as "sexual", exposure of breast, even for infant feeding is considered embarrassing. Traditional values breastfeeding held in culture no longer exist Formula/ breastmilk substitutes are easily accessible.
10	Martens 1994 Manitoba, Canada	This thesis aimed to understand and record breastfeeding initiation and duration rates of women in four Indigenous communities in Manitoba.	- Women delivering infants between December 1993 and June 1994 - Indigenous women living in Hollow Water, Little Black River, Long Plain and Sagkeeng First Nations (*N*=36)	- Mixed-Methods design - Semi-structured qualitative interviews - Prospective survey from third trimester to 12 weeks postpartum and a retrospective survey	CHN was active in each community. The nurse provided oral teaching in a one-on-one session in the prenatal period and provided booklets and pamphlets to reinforce teaching. Hospital nurses were identified as being helpful and informative by some participants. Some participants reported inconsistent advice from hospital nurses.

					Supplementation with formula by nurses was common and occurred without parental consent. The best predictors of breastfeeding choice included prenatal intent to breastfeed and breastfeeding confidence. The best predictors of breastfeeding duration were satisfaction with breastfeeding at 2 weeks and referent scores. Referent refers to individuals and groups impacting decisions such as family, social circle. Reasons for breastfeeding cessation included pain and perceived insufficient milk supply; community level intervention targeting breastfeeding confidence, referent support, and breastfeeding beliefs by health care providers could decrease early weaning.
11	Martens 1997 Manitoba, Canada	A breastfeeding decision-making model was used to understand infant feeding decisions and the impact of referents on decisions related to breastfeeding.	- Women delivering infants between December 1993 and June 1994 on Hollow Water, Little Black River, Long Plain and Sagkeeng First Nations (*n*=36) - Key informants (*n*=14) including mothers, grandmothers, fathers, school & health personnel, hospital maternity nurses	- Mixed-Methods - Prospective cohort study: semi-structured qualitative interviews - A quantitative survey measuring referent score (assessing breastfeeding support and maternal compliance) - Qualitative semi-structured key informant interviews	42% of women report having received breastfeeding instruction from the hospital nurse while 100% of the nurse's report delivering instruction. Methods of instruction included individual oral and hands-on teaching, pamphlets, videos. The CHN provided prenatal education in the form of individual teaching. Postnatal support from the CHN included telephone calls and scheduled home visits which included postpartum assessments. Breastfeeding support offered including assessment of latch. Postnatal CHN follow up was associated with increased

					breastfeeding outcomes. Hospital nurses ask about feeding methods, but only taught about breastfeeding. Hospital nurses recognized being supportive of a mother's decision to breastfeed but note they cannot help women make the decision to breastfeed as it is too late. Women choose infant feeding methods within social contexts rather based on knowledge. Infant feeding decisions are often made in early pregnancy, sometimes prior to pregnancy. Prenatal education offered by a nurse is valuable in breastfeeding promotion.
12	Martens 2001 Manitoba, Canada	Due to the average age of primigravida in Sagkeeng being 17 years of age, this study aimed to assess the impact of an educational seminar on adolescent attitudes and knowledge of breastfeeding.	- Male and female students - Grades seven and eight in Canadian Ojibwa community of Sagkeeng - Pretest-post-test (*n*= 45) - For pretest - post-test and retention test (*n*=34)	- Quantitative Methodology - Pretest and post-test control group design - Retention test occurred ten days later assessing retained knowledge	The breastfeeding educational session resulted in an increase in breastfeeding beliefs. This intervention could be associated with an increase in breastfeeding initiation in Sagkeeng community overtime. Learning in the following areas occurred: health, convenience, cost, and decreased embarrassment. CHN is involved in the development of educational content to promote knowledge, attitudes, and beliefs.
13	Martens 2002 Manitoba, Canada	This study reviewed the effectiveness of a community-based program aimed at promoting breastfeeding in	- CHN chart audit (*N*= 271) - Peer counsellor chart audit (*N*=115) - Semi-structured	- Mixed-Methods - Chart audit conducted to review CHN program and peer counsellor program	Prenatal breastfeeding teaching by a CHN took place through verbal education, booklets, and video resources. Initiation rates increased from 38% in 1995 to 60% in 1997, this

		southern Manitoba. This research focused firstly on the strategies utilized by the CHN in impacting community initiation of breastfeeding from 1992 – 1997. Secondly, this study conducted a formal evaluation of a peer counsellor program initiated to support breastfeeding.	interviews (*N* =33)	- Semi-structured interviews with mothers (both peer counsellor clients and non-peer counsellor clients).	increase is associated with CHN prenatal education intervention. Breastfeeding duration rates do not seem to be impacted by the CHN intervention alone. Duration rates remained similar from 1992 to 1996. Duration increased in 1997 when the pilot peer counsellor intervention was established; the peer counsellor program decreased early breastfeeding cessation. Patients reported fewer problems with breastfeeding, were satisfied with access to information and support.
14	Martens & Young 1997 Manitoba, Canada	This research was conducted to determine infant feeding decisions, including choice, duration, patterns and influencing factors among Canadian Ojibwa women.	- Women delivering infants between December 1993 and June 1994 on Hollow Water, Little Black River, Long Plain and Sagkeeng First Nations (*N*=36)	- Mixed-Methods - Prospective cohort study - Semi-structured qualitative interviews took place in the prenatal period with mothers as well as interviews with key informants - Retrospective chart data collected	CHN was present in all four First Nations communities. The nurse played a role in supporting the program, acting as a key informant, and "expert" consulting with researcher. The strongest indicators of breastfeeding were prenatal intent and breastfeeding confidence. The best indicators of duration were satisfaction with breastfeeding at two weeks and postpartum referent scores. Reasons for breastfeeding cessation include insufficient supply and discomfort. Community interventions that focus on breastfeeding beliefs, confidence, and referent support could support breastfeeding outcomes. Enhancing screening for the preventable problems (pain and low supply) that contribute to early weaning could support breastfeeding outcomes.

15	McKim et al. 1998 Newfoundland, Canada	A prospective longitudinal study was conducted in aims to understand the infant feeding practices in Newfoundland and Labrador including feeding choice and influencing factors.	Innu and Inuit sub-sample (*n*=45)	- Mixed-Methods - Prospective longitudinal study - Questionnaires collecting demographic data and biomarkers - Open-ended interviews collecting data on feeding choice, duration, influencing factors	The midwife was the most influential individual in breastfeeding decision making with the husband, PHN (public health nurse), doctor and mother all equally tied as second most influential. Most breastfeeding teaching from nurses is one-on-one with patients. Nurses do not create an environment where traditional practices are promoted, rather conformation to the euro-western cultural norm is expected. There is a need for health care providers to provide culturally relevant care to Indigenous women. Data obtained from birth to six months of life. 54% of mothers initiated breastfeeding post-delivery. Breastfeeding declined to 44.8% at one month of life, then to 21.5% at six months of life. Less than 5% of the Indigenous mothers in the study attended prenatal classes. Very few women discussed infant feeding prior to delivery. Reasons for not breastfeeding included embarrassment, method of delivery (caesarean section), perceived low milk supply, and fear of illness related of breastfeeding.
16	Moffitt 2018 Northwest Territories, Canada	This study explored breastfeeding from the perspectives of mothers and grandmothers in the Northwest	- Purposive and snowball sampling techniques were utilized - First Nations mothers and grandmothers	- Mixed-Methods - Sharing circles were held with five groups of grandmothers - Semi-structured interviews conducted	Home visits from nurses occurred within the first week of infant life. Some mothers noted a lack of understanding and compassion from nurses in recognizing the challenges and complications of breastfeeding with several children, living in

		Territories. The intended outcome of this research was to describe infant feeding methods in this region, understand traditional breastfeeding knowledge and how it aligns with current breastfeeding evidence.	(*N*=73) - Retrospective chart audit (*N*=597)	with mothers (n=24). - Retrospective chart audit of the health records of babies born in 2016 reviewed as well as infant feeding methods reported to PHNs and CHNs during postpartum assessments	households with more pressing challenges. Some mothers recognized nurses took time to teach and show and assist with obtaining a proper latch. Some women recognized inadequate supports within the health care system, such as a lack of support for breastfeeding, nurses not being present for support when requested in hospital. Elders noted less people, particularly younger individuals, have adequate knowledge on the value and practice of breastfeeding today. Elders identify breastfeeding as a cheaper and healthier method of infant feeding. Elders note the importance of breastfeeding education from nurses and how it seems to be lacking in the present day. The importance of traditional teaching methods were recognized by mothers and Elders.
17	Moffitt & Dickinson 2016 Northwest Territories, Canada	This study aimed to uncover determinants of exclusive breastfeeding and rates of exclusive breastfeeding in the remote community in the Northwest Territories. This study aimed to create knowledge	- Tłı̨chǫ̨ women, (*N*=198) who gave birth during the period of January 1, 2010 to December 31, 2012	- Mixed-Methods The study included three steps: - Retrospective chart audits from hospital birth records to identify breastfeeding - Second chart audit from follow-up on exclusive	60.1% initiated any breastfeeding. 26.8% breastfed exclusively (in the hospital). 33.3% supplemented breastfeeding with formula. Nurses in the hospital often “topped up” breastfed babies with formula. This is the intervention of supplementing breastfed infants with 15-30 mL of formula after the baby is breastfed without clear rationale.

		translation tools to promote and increase breastfeeding rates in this community.		breastfeeding duration (Charts from a local Community Health Centre) - Semi-structured interviews with a purposive sample of Tłı̨chǫ mothers and 1 community Elder (*n*=8)	Women identified there was a lack of breastfeeding support. Peer counsellor support for breastfeeding established in the community. Prenatal outreach by a local nurse has been initiated in the community in combination with the knowledge translation tools (photobook and video) to better support women. Knowledge translation tools developed in collaboration with community Elder and community health representatives. Resources included a photobook and a video that strengthened cultural identity. These tools are to be utilized at prenatal classes and by nurses at the community health center. Results from semi-structured interviews captured, "the pull to formula" (lifestyle preference, need to go back to work/ school and breastfeeding is demanding and time consuming, drug and alcohol use, supplementing BF with formula to expedite discharge from hospital/ ensure baby is full, formula advertising, lack of breastfeeding support) and "the pull to breastfeed" (traditional practice, economical, increased bonding with infant, healthy practice).
18	Smylie et al. 2016 Canada	This realist review aimed to identify Indigenous prenatal and infant-toddler health promotion programs in Canada that have	- Articles from databases and non-indexed reports (*N*=20)	- Mixed-Methods - Literature search followed by customized quality appraisal scoring process to determine eligible articles	The PHN has a role in supporting infant nutrition through parent counselling on breastfeeding. When CHNs work collaboratively with nurse researchers and invest in programs that are culturally relevant, their outcomes are

		demonstrated positive impacts on the health and well-bring of Indigenous women, infants and toddlers. This review aims to understand how these programs work (including why they work and in what context).		- Multiple reviewers involved, program descriptions; study outcomes and results uncovered	improved, and programs are more widely accepted. A mid-range theory was developed through evidence appraisal. This theory encompasses Indigenous community investment-ownership-activation as a means to understand how and why certain health promotion programs succeed. Programs with local community investment and programs that are perceived by the community as intrinsic have better outcomes.
19	Wagner 2007 Saskatchewan, Canada	This study aimed to uncover factors that influence infant feeding decisions among Indigenous women in Saskatoon.	- Indigenous women recruited from the Food for Thought Program in Saskatoon (*N*=8)	- Qualitative - Semi-structured prenatal interview followed by two unstructured in-depth interviews at one month postpartum - Participant observation in Food for Thought sessions	Nurses were supplementing feeds with formula without adequate rationale. Many women reported supply concerns and the feared the baby was not getting enough from the breast; all but one participant who voiced supply concerns were directed to supplement with formula. Nurses displayed a lack of knowledge on adequate milk supply. All nurses at Royal University Hospital in Saskatoon have received mandatory training on the Baby-Friendly Initiative. Registered Nurse was the facilitator of "Food for Thought" program. This program was designed for pregnant women struggling with issues such as poverty, isolation, substance use, or violence. "Food for Thought" offered free meetings run by an RN and a dietician. These meetings aimed to support and educate women on nutrition, pre-post-natal teaching, and information on seeking medical care. Discussion and experience sharing took place. Participants describe varied care

					from nurses in the hospital setting. Hospital nurses were identified as having a supportive role in breastfeeding, primarily they were a source for specific lactation problems (latch issues and supply concerns). Participants reported that when nurses were helpful and kind, it was much more encouraging to continue breastfeeding efforts. Some participants reported nurses were rude and non-supportive in the hospital environment (this was discouraging to breastfeeding continuation), comments like “you should already know this, I already showed you. These resulted in poor outcomes, often, latching problems continued after discharge (for half of the study participants). The CHN was identified as part of the support network contributing to positive breastfeeding outcomes. CHN completed home visits and had a stronger influence on breastfeeding than hospital nurses. The CHN influenced infant feeding decisions.

Curriculum Vitae

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