ATHABASCA UNIVERSITY

SUPPORTING MATERNAL MENTAL HEALTH: THE EXPERIENCES OF REGISTERED NURSE LACTATION CONSULTANTS

BY

KELLY LYNN DECOSTE

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF NURSING

FACULTY OF HEALTH DISCIPLINES

ATHABASCA, ALBERTA

APRIL, 2024

© KELLY LYNN DECOSTE

Athabasca University
Faculty of Graduate Studies

Approval of Thesis

The undersigned certify that they have read the thesis entitled

SUPPORTING MATERNAL MENTAL HEALTH: THE EXPERIENCES OF REGISTERED NURSE LACTATION CONSULTANTS

Submitted by

Kelly DeCoste

In partial fulfillment of the requirements for the degree of

Master of Nursing

The thesis examination committee certifies that the thesis
and the oral examination is approved

Supervisors:
Dr. Steven Johnson
Athabasca University

Dr. Georgia Dewart
Athabasca University

Committee Members:
Dr. Britney Benoit
St. Francis Xavier University

External Examiner:
Dr. Megan Aston
Dalhousie University

March 1, 2024

1 University Drive, Athabasca, AB, T9S 3A3 Canada
Toll-free (CAN/U.S.) 1.800.788.9041 ex. 6821
fgs@athabascau.ca | fgs.athabascau.ca | athabascau.ca

Dedication

I dedicate this thesis to my children, Neil and Adelyn. Being your mother and watching you grow is an incredible privilege. I am so proud of both of you. Our experiences have motivated me to engage in this research and inspire me to continue advocating for healthcare changes that will benefit future generations. I hope the mountains I climbed to complete this thesis serve as a reminder to always remain true to yourself, to dream big, and to use your voice courageously to stand up for what you know is right.

To my husband, Mike, I could not have done this without you. Thank you for your unwavering support and for standing beside me throughout this journey. You encouraged me through the challenges, celebrated my victories, and ensured I never lost sight of my dreams. I am forever grateful for your love and support.

In memory of Reineke, whose nurturing love and unwavering strength continue to inspire all who were blessed enough to know her. Your memory will forever brighten our lives.

Acknowledgements

I extend my heartfelt gratitude to my thesis co-supervisors, Dr. Steven Johnson, Ph.D., and Dr. Georgia Dewart, Ph.D., RN. Your guidance, support and encouragement have helped me immensely throughout this journey. Thank you for helping me turn ambitious ideas into achievable research and for providing me with opportunities to enhance my research skills. It has been an absolute privilege to work with you both. Your guidance and ongoing support have helped reignite my passion for research.

To Dr. Britney Benoit, Ph.D., RN, thank you for sharing your time and expertise as a member of my thesis committee. Your mentorship and collegiality have shaped my professional journey as a nursing researcher.

Thank you to the Registered Nurse Lactation Consultants who so willingly shared their time, expertise, and experiences; this thesis would not be possible without your contributions. Your commitment to the individuals, families, and communities you care for is admirable and inspiring; your role is invaluable.

I would also like to thank the Canadian Nurses Foundation for financially supporting this project through the Canadian Nurses Foundation Scholarship Program. This project received funding from the Nova Scotia Nurses Award and the Tylenol ® Fund to Advance Diversity in Nursing and Health Equity Research. #CNFScholar.

Abstract

Rates of perinatal mental health disorders (PMHDs) in Nova Scotia are among the highest in the country, while rates of exclusive breastfeeding remain low. Difficulty breastfeeding is a risk factor for PMHDs; however, lactation consultant support has been associated with decreased rates of PMHDs. The purpose of this research was to explore the experiences of Registered Nurse Lactation Consultants (RN LCs) in Nova Scotia related to maternal mental health. Ten RN LCs employed within the publicly funded healthcare system in Nova Scotia, Canada, participated in this study via semi-structured online interviews. Guided by qualitative description, a qualitative content analysis revealed five key themes: Availability of breastfeeding support, Experiences supporting maternal mental health, Providing maternal mental health care, Access to services, and Mothers need support. Findings highlight the importance of LCs in supporting maternal mental health outcomes and the need for more equitable access to LC services.

Keywords: Lactation consultant, maternal mental health, perinatal mental health, breastfeeding, support, qualitative description

Table of Contents

Thesis Overview

International Board Certified Lactation Consultants (IBCLCs) are perinatal care providers with expertise in breastfeeding and lactation care who work collaboratively to promote and support breastfeeding (IBLCE, 2018). While the main role of an IBCLC is to support women in meeting their breastfeeding goals, their scope of practice states that IBCLCs must also acknowledge mental status as it pertains to breastfeeding (IBLCE, 2018). Exclusive breastfeeding has been identified as a protective factor against the development of perinatal mental health disorders (PMHDs) (Chih et al., 2021; Sha et al., 2019); however, breastfeeding challenges are associated with an increased risk of developing PMHDs (Islam et al., 2021; Shen et al., 2023). Although not the direct focus of this thesis, the connection between breastfeeding and maternal mental health will be explored as the mental health support provided by Registered Nurse Lactation Consultants (RN LCs) occurs within the context of providing breastfeeding support.

RN LCs with IBCLC designation are uniquely positioned to indirectly support maternal mental health by promoting breastfeeding and supporting mothers through breastfeeding challenges. They can also directly impact maternal mental health by screening for PMHDs and addressing mental health while providing breastfeeding support (Chih et al., 2021; Sha et al., 2019). RN LCs play a crucial role in supporting breastfeeding and, in turn, maternal mental health. Acknowledging the importance of including RN LCs as partners within integrated perinatal mental healthcare, the goal of this research is to provide an opportunity to explore the experiences of Registered Nurse Lactation Consultants (RN LCs) in Nova Scotia related to supporting maternal mental health.

Chapter 1. Introduction

The introductory chapter of this thesis will begin with preliminary background information on PMHDs and exclusive breastfeeding. This will be followed by a discussion on lactation consultants and access to lactation consultant services in Canada and Nova Scotia. The chapter will conclude with information on the inspiration for and the purpose of this research project, researcher positionality, and the research questions guiding this study.

Background

PMHDs comprise a group of disorders including depression, anxiety, obsessive-compulsive disorder, bipolar disorder, posttraumatic stress disorder, and psychosis (Center for Addiction and Mental Health [CAMH], 2022; Canadian Perinatal Mental Health Collaborative [CPMHC], 2021). PMHDs arise in the perinatal period, extending from conception until the end of the first year postpartum (CAMH, 2022; Hicks et al., 2022). In Canada, approximately 23% of mothers are affected by PMHDs; however, this number has increased since the onset of the COVID-19 pandemic (Davenport et al., 2020; Racine et al., 2021; Statistics Canada, 2019). The increased demand for maternal mental health services has placed additional pressure on a healthcare system without national guidelines for addressing PMHDs (CPMHC, 2021; Davenport et al., 2020; Racine et al., 2021). A recent survey of Canadian perinatal healthcare providers indicated that less than half had received specialized training in perinatal mental health, and 87% worked in environments without mandated screening for PMHDs (Hicks et al., 2022).

PMHDs are a growing public health concern that can negatively impact the health and well-being of mothers, children, and families (Lengua et al., 2022; Registered Nurses' Association of Ontario [RNAO], 2018; Rogers et al., 2020; WHO, 2022b). Effective health promotion for these groups requires a commitment to the early identification and treatment of PMHDs (CPMHC, 2021;

RNAO, 2018; Segre et al., 2023; Sim et al., 2023; Slomian et al., 2019). Unfortunately, there are several gaps in the healthcare system regarding provider education, screening, and treatment of PMHDs in Canada (CPMHC, 2021; Hicks et al., 2022). As a result, many women with PMHDs go undiagnosed and thus untreated (Legere et al., 2017). Perinatal mental health strategies across Canada are insufficient, and more comprehensive and accessible approaches are needed to help address the mental health needs of mothers in the perinatal period (Hicks et al., 2022).

Exclusive breastfeeding has been identified as a protective factor against the development of PMHDs (Chih et al., 2021; Sha et al., 2019). However, difficulty breastfeeding increases the risk of a woman developing PMHDs (Islam et al., 2021; RNAO, 2018; Shen et al., 2023). This is especially true in women who intend to breastfeed and are unable to breastfeed as planned (Borra et al., 2015; Chang et al., 2022; Islam et al., 2021). Mothers have identified the perception of inadequate milk supply and maternal breast and nipple pain as the most common reasons for early breastfeeding cessation (Morrison et al., 2019). Women with difficulty breastfeeding can be supported through these challenges with the assistance of lactation consultants (LCs) (IBLCE, 2018). Research has indicated that women accessing LC services present with increased rates of PMHDs; however, significant decreases in PMHDs were noted one month following LC support (Chrzan-Detkos et al., 2021). When women experience positive perceptions of LC support, they report increased breastfeeding self-efficacy and more successful breastfeeding outcomes (Keim et al., 2021). Therefore, RN LCs can support maternal mental health by promoting breastfeeding, supporting mothers through breastfeeding challenges, addressing maternal mental health concerns, and providing screening for PMHDs during LC appointments.

Access to breastfeeding support through a healthcare provider with breastfeeding expertise, such as RN LCs is a human right (WHO, 2022a). However, there is inequitable access to LC

services across Canada. Provincially, access to LCs and the support offered in Nova Scotia varies from region to region (B. Benoit, personal communication, January 4, 2023). Breastfeeding persons are entitled to breastfeeding support services as a way to support positive health outcomes for them and their infants. Research indicates that LC support, which aims to promote exclusive breastfeeding and help mothers overcome breastfeeding challenges, can indirectly support maternal mental health (Chrzan-Detkos et al., 2021; Keim et al., 2021). RN LCs can also directly impact maternal mental health by addressing maternal mental health concerns and providing screening for PMHDs during LC appointments. As Canada lacks a national strategy for addressing PMHDs, accessible LC support that addresses maternal mental health may serve as an effective means of supporting the mental health of women accessing LC support throughout the perinatal period.

Inspiration for the Research Study

This research study was inspired by a motivation to look for more comprehensive and accessible ways of supporting the mental health of women accessing LC support. Although all women in the perinatal period are at risk of experiencing PMHDs, the focus of this research is on breastfeeding women, as exclusive breastfeeding has been identified as a protective factor against the development of PMHDS, and difficulty breastfeeding is a risk factor for the development of PMHDs (Chih et al., 2021; Islam et al., 2019; Sha et al., 2019; Shen et al., 2023). Nova Scotia has one of the lowest rates of exclusive breastfeeding in Canada and the highest rates of PMHDs (Statistics Canda, 2019; 2022). Therefore, LC support can potentially improve both rates of breastfeeding and PHMDs by working to increase rates of exclusive breastfeeding and also by addressing maternal mental health concerns and screening for PMHDs while providing breastfeeding support. Understanding the experiences of LCs providing care to support maternal mental health will offer insight into whether LCs could be leveraged as a healthcare resource to

promote maternal mental health. Our healthcare system is facing increased demand for perinatal mental health services, a situation compounded by the ongoing COVID-19 pandemic (Vigod et al., 2021). Despite this, there is a lack of access to these services, with 61% of Canadian providers reporting service wait times between one and twelve months (Tarasoff et al., 2021). Lengthy wait times are compounded by the absence of a national strategy to address the need for increased maternal mental health services (CPMHC, 2021; Hicks et al., 2022). As advocates continue to lobby for a national strategy to address perinatal mental health in Canada, it is important to utilize existing resources, such as LCs, to help promote maternal mental health (CPMHC, 2021). Providing comprehensive perinatal mental healthcare requires an integrated, multidisciplinary approach that includes LCs. While there is a growing amount of research addressing PMHDs, there is limited research addressing the experiences of LCs in providing maternal mental health care and an absence of literature from the perspective of LCs.

Researcher Positionality

Interest in breastfeeding support and maternal mental health has emerged from personal and professional experiences that are important to articulate as they relate to my motivations for the proposed study. As an undergraduate student, I was privileged to work on a research project exploring community support for breastfeeding. As I learned more about supporting mothers who wanted to breastfeed, I began advocating for increased breastfeeding support. I worked collaboratively with community partners to create breastfeeding-friendly spaces with the aim of increasing breastfeeding initiation and duration rates across Nova Scotia.

As a mother who breastfed, a significant degree of positionality comes from my own experience and what I have learned from personal connections with women who have openly shared their experiences with motherhood, breastfeeding, and PMHDs. My breastfeeding

experience was challenging at times; however, I had the support of local LCs whose guidance and expertise helped ensure my journey was positive. As a new mother living in rural Nova Scotia, I was overwhelmed by the support I received. However, as I heard stories from mothers I knew on a personal level across the province, it became evident that there was inequitable access to services for supporting breastfeeding and maternal mental health across Nova Scotia. I heard stories of women who intended to breastfeed exclusively but could not do so because they lacked adequate breastfeeding support when challenges arose. Women spoke of being surrounded by messaging that "breast is best," being determined to breastfeed their infants, and not being able to access the healthcare support required to continue breastfeeding. Many women mentioned how this made them feel guilty or like they had let their infants down. These thoughts negatively impacted their mental health and, in some cases, contributed to the development of PMHDs.

Although the healthcare system promotes breastfeeding, there is a lack of direct support for women who want to breastfeed. These stories were impactful and changed my approach as an advocate for breastfeeding. I became acutely aware of my privilege to have received a high level of breastfeeding support in the perinatal period. It is unjust that many women across the province go without adequate healthcare support for breastfeeding and PMHDs. Based on these experiences, I have shifted my focus to include the broader healthcare system to advocate for more equitable access to healthcare services to support the physical and mental health of women who want to breastfeed.

I continue to acknowledge my impact on the phenomena I study and use reflexive research journals to develop the skills and knowledge necessary to adequately recognize my effect on the research process (Orange, 2016). Using a reflexive research journal allowed me to document methodological decisions and procedures related to data collection and analysis while consciously

acknowledging the impact of my values, decisions, and experiences (Lincoln & Guba, 1985; Orange, 2016; Ortlipp, 2008).

Purpose of the Research Study and Research Questions

Acknowledging that LCs should be considered partners in integrated perinatal mental health care, this study aims to explore the experiences of RN LCs in relation to maternal mental health. Exclusive breastfeeding has been identified as a protective factor against the development of perinatal mental health disorders; therefore, LCs can positively impact maternal mental health by providing breastfeeding support and incorporating mental health screening and support into routine LC care (Chrzan-Detkos et al., 2021; Chih et al., 2021; Keim et al., 2021; Sha et al., 2019). This research is based on the assumption that providing appropriate mental health support in the perinatal period requires understanding the experiences of those accessing support and those who are providing support. The overarching questions guiding this research include the following:

- What are the experiences of Registered Nurse Lactation Consultants in Nova Scotia related to maternal mental health?
- How do Registered Nurse Lactation Consultants incorporate mental health services into their care?
- How does access to Registered Nurse Lactation Consultant services impact maternal mental health as perceived by Registered Nurse Lactation Consultants?

Chapter 2. Literature Review

This chapter will begin with a statement on the use of gender-inclusive language. The impact of PMHDs and the relationship between PMHDs and breastfeeding will be addressed. The discussion on PMHDs will focus primarily on postpartum depression and postpartum anxiety, as there is limited research connecting less common PMHDs and breastfeeding. The impact of LC services on maternal mental health from the perspective of mothers accessing these services will also be discussed. There is limited literature addressing the relationship between LC services and PMHDs and an absence of research on the experiences of LCs in supporting maternal mental health.

Gender-Inclusive Language

The Academy of Breastfeeding Medicine recommends using inclusive language when discussing topics related to infant feeding (Bartick et al., 2021). The term breastfeeding has been critiqued for its ambiguity as it has come to mean both feeding an infant at the breast and feeding an infant expressed breastmilk (Dinour, 2019; Rasmussen et al., 2017). Furthermore, breastfeeding is traditionally associated with mothers and women; however, there are individuals who feed their infants human milk and do not identify as women or mothers (Bartick et al., 2021). Gender-inclusive language incorporates the terms chest-feeding and body-feeding in addition to breastfeeding, and the term lactating person is used as opposed to mother (Bartick et al., 2021). This research proposal uses the terms women, mothers, and breastfeeding; however, this does not negate my support for the diversity and complexities surrounding infant feeding. Traditional gendered terms are recommended when documents are prepared for a worldwide audience or the lay public (Bartick et al., 2021). It is for this reason that gendered terms are used within this

document. I will remain committed to promoting the use of gender-inclusive language while working towards disseminating highly accessible research findings.

Perinatal Mental Health Disorders

PMHDs are a significant public health concern that can be detrimental to the health and well-being of mothers, children, and families (Lengua et al., 2022; RNAO, 2018; Rogers et al., 2020; WHO, 2022b). Maternal mental illness can impact mothers at many points in time; however, most research focuses on maternal mental health in the perinatal and postpartum periods (Racine et al., 2021; Rogers et al., 2020; Statistics Canada, 2019; Vigod et al., 2021). The perinatal period extends from conception until the end of the first year postpartum, whereas the postpartum period encompasses the first year following childbirth (CAMH, 2022; Hicks et al., 2022). The impact of PMHDs is widespread, with one in three Canadian women indicating that they felt concerned about their mental health during the postpartum period (Statistics Canada, 2019). PMHDs, which include depression, anxiety, obsessive-compulsive disorder, bipolar disorder, posttraumatic stress disorder, and psychosis, have been identified as the most common complications during the perinatal period (CAMH, 2022; CPMHC, 2021). Although a range of PMHDs exists, research focuses heavily on postpartum depression (Islam et al., 2021; Slomian et al., 2019), with more recent research also acknowledging the significant impact of perinatal anxiety (Field, 2018; Keim et al., 2021; Langille et al., 2023; Racine et al., 2021).

Postpartum Depression & Anxiety

Postpartum depression and anxiety are two of the most prevalent PMHDs, affecting approximately 23% of Canadian mothers (Statistics Canada, 2019). Postpartum depression is classified as a major depressive episode that occurs within the postpartum period and is characterized by several symptoms such as depressed mood, anhedonia, sleep disturbances,

psychomotor agitation or retardation, changes in weight or appetite, fatigue, feelings of guilt or worthlessness, impaired concentration and recurrent thoughts of death or suicide (American Psychiatric Association [APA], 2013). Diagnosing postpartum depression requires that symptoms are present for at least two weeks and negatively impact a mother's baseline level of functioning (APA, 2013).

There is an overlap between the symptoms of postpartum depression and postpartum anxiety; however, postpartum anxiety also encompasses excessive worrying that consumes a significant amount of a mother's time and impairs their daily functional ability (APA, 2013; CAMH, 2022). Postpartum depression and anxiety are not mutually exclusive disorders; it is common for mothers suffering from postpartum depression to also experience symptoms of postpartum anxiety (Gheorghe et al., 2021). Postpartum depression and anxiety can often go undiagnosed because alterations in sleep, body weight, behavior, and energy levels are often regarded as regular occurrences during the postpartum period (CAMH, 2022). This highlights the critical role of mental health screening and the need for competent, comprehensive, and accessible screening provided by primary care providers, LCs, and other healthcare professionals.

Negative Impact of Postpartum Depression & Anxiety

Several social and emotional complexities characterize the perinatal period as women learn to adapt to the physical and psychological changes of motherhood (Finlayson et al., 2020). Women have identified building confidence and competence in their role as mothers, successfully adapting to changing family relationships, an ability to overcome physical and emotional challenges and an overall sense of well-being for themselves and their children as the factors that matter most to them during the postpartum period (Finlayson et al., 2020). Women with PMHDs face additional

psychological challenges that may make it more difficult to experience positive self-growth and adaptation to the roles of motherhood during the postpartum period.

Women experiencing postpartum depression report adverse physical and psychological health outcomes and a decreased quality of life (Slomian et al., 2019). Social and intimate partner relations are often strained, and women report difficulty developing and maintaining relationships. These circumstances are exacerbated by perceptions of low-quality social support and an increase in high-risk behaviors such as substance misuse or suicidal ideation (Slomian et al., 2019). Postpartum depression and anxiety can negatively impact connectedness within the mother-infant dyad. Children of mothers suffering from postpartum depression and postpartum anxiety are at risk for several developmental, emotional, and behavioral challenges (Rogers et al., 2020; Slomian et al., 2019).

Risk Factors for Postpartum Depression & Anxiety

Numerous risk factors exist for postpartum depression, including a history of depression or anxiety, stressful life events, low social support, the perception of low social support, low self-esteem, a history of abuse, substance use, obstetrical complications, and challenges with breastfeeding (Ghaedrahmati et al., 2017; Islam et al., 2021; RNAO, 2018; Xu et al., 2017). Risk factors for postpartum anxiety include a history of depression, poor maternal health, preterm delivery, negative delivery experiences, higher education levels, increased infant crying, low levels of self-efficacy and low levels of support (van der Zee-van den Berg et al., 2021). Risk factors for PMHDs are multi-factorial, and each woman's presenting symptoms are unique. The social determinants of mental health influence the likelihood of an individual developing postpartum depression, so it is crucial to recognize circumstances and situations that may amplify an individual’s risk factors (RNAO, 2018). Identifying and recognizing risk factors encourages

prompt intervention for women at risk for or suffering from PMHDs. Mitigating the negative impacts of postpartum depression and anxiety promotes the health and well-being of women, children, and families (RNAO, 2018; van der Zee-van den Berg et al., 2021; Xu et al., 2017).

Perinatal Depression & Anxiety in Canada

Globally, more than 17% of women experience postpartum depression (Wang et al., 2021), while estimates of the global prevalence of postpartum anxiety range from 13-40% (Field, 2018). The number of Canadian mothers experiencing postpartum depression (17.9%) and postpartum anxiety (13.8%) is comparable to rates at the global level (Gheorghe et al., 2021). Recent surveys indicate that almost one in four (23%) Canadian mothers experience symptoms of either postpartum depression or anxiety; however, variations exist across the country, with increased rates in the Atlantic provinces (Statistics Canada, 2019). In Nova Scotia, rates of postpartum depression and anxiety are greater than the national average, with 31% of mothers reporting symptoms of either postpartum depression or anxiety (Statistics Canada, 2019).

Rates of postpartum depression and anxiety in Canada have soared during the COVID-19 pandemic (Davenport et al., 2020; Racine et al., 2021). In a recent online survey of 900 women, self-reported symptoms of perinatal depression were recorded at 40.7%, and symptoms of perinatal anxiety were reported by 72% of Canadian mothers (Davenport et al., 2020). Similarly, in their longitudinal observational study of 1301 women in Canada from the All Our Families cohort, surveys conducted at the COVID-19 time point revealed significantly higher rates of depression and anxiety in comparison to all other data collection points (Racine et al., 2021).

Additionally, in a repeated cross-sectional study using linked health administrative databases in Ontario, Canada, Vigod et al. (2021) reported increased primary care and psychiatrist visits for mental health-related concerns among mothers in the postpartum period throughout the

first nine months of the pandemic. Women within the first 90 days postpartum accounted for the most significant increase in mental health-related visits. During the early months of the pandemic, there was also an increase in the number of mothers diagnosed with anxiety, depression, and substance use disorders (Vigod et al., 2021).

Barriers to Mental Health Support

In Canada, 33% of mothers report concerns about their mental health during the postpartum period (Statistics Canada, 2019). Of these mothers, the majority (85%) spoke to someone about their mental health concerns, such as a partner or friend; however, less than half of these women discussed their concerns with their primary care provider (Statistics Canada, 2019). Fear and stigma, difficulty self-recognizing changes in mental health, an unwillingness to ask for help and obstacles to accessing healthcare services have been identified as barriers to help-seeking behaviors (Ford et al., 2019). As the demand for maternal mental health services increases, it highlights the importance of creating accessible and appropriate services to support women's mental health throughout the perinatal period (Vigod et al., 2021). The province of Nova Scotia has recently released a Care Pathway for the Management of Perinatal Mental Health an Addictions, which provides guidelines that span from the screening and identification of PMHDs, and also covers recommendations for ongoing treatment and monitoring (Reproductive Care Program of Nova Scotia [RCP], 2023). Increased rates of postpartum depression and anxiety and a greater need for mental health services are increasing strain on a healthcare system without a national strategy for addressing PMHDs (CPMHC, 2021; Davenport et al., 2020; Racine et al., 2021).

In addition to provincial guidelines, there is a need for nationally mandated perinatal mental health services to improve the care provided to women during the perinatal period. A national strategy could help improve provider training, screening resources, and equitable access to timely

and culturally safe healthcare services to support maternal mental health (Hicks et al., 2022). There is a need for increased awareness and support for maternal mental illness in Canada (CPMHC, 2021). The broader healthcare system needs to act proactively by initially focusing on high-risk groups of women, such as those experiencing breastfeeding challenges, and using innovative strategies to increase the healthcare system's capacity for supporting maternal mental health. It is essential to acknowledge and overcome barriers to accessing healthcare services unique to the postpartum period (Vigod et al., 2021). The health of mothers, children, and families requires a commitment to the early identification and treatment of PMHDs as a means of preventing the harmful and potentially fatal consequences associated with these disorders (CPMHC, 2021; RNAO, 2018; Segre et al., 2023; Sim et al., 2023; Slomian et al., 2019).

Breastfeeding

The central role of IBCLCs includes promoting breastfeeding and supporting mothers through breastfeeding challenges (IBLCE, 2018). RN LCs can also support maternal mental health by promoting breastfeeding, supporting mothers through breastfeeding challenges, addressing maternal mental health concerns, and providing screening for PMHDs during LC appointments. In the following sections, breastfeeding and the connection between breastfeeding and maternal mental health will be explored as the mental health support provided by RN LCs occurs within the context of providing breastfeeding support.

Breastfeeding is the preferred method of infant feeding as it provides several physical, developmental, and emotional benefits to both mother and baby (WHO, 2021). Exclusive breastfeeding is promoted as the optimal method of infant feeding for the first six months of life, with complimentary on-demand breastfeeding advised until age two and beyond (Government of Canada, 2022; WHO, 2021). Despite this recommendation, less than half of infants worldwide are

exclusively breastfed (WHO, 2021). Instead, alternative feeding methods are employed, such as formula feeding.

Breastfeeding initiation and duration rates have improved in Canada over the last few decades. Although 91% of Canadian mothers initiate breastfeeding, only 34% breastfeed exclusively for the recommended six-month period (Statistics Canada, 2022). Breastfeeding duration rates are lower than the national average in Nova Scotia, where only 27% of infants are exclusively breastfed for six months (Statistics Canada, 2022). The two most common reasons for low breastfeeding duration rates are perceptions of not producing enough breast milk and difficulties with breastfeeding techniques (Statistics Canada, 2022). Early breastfeeding cessation related to difficulty with positioning and latching is especially prevalent in the first few weeks postpartum (Chrzan-Detkos et al., 2021).

Breastfeeding and the Social Determinants of Health

The social determinants of health are a group of social and economic factors that influence an individual's health status. These factors include income, education, social environments, access to health services, food insecurity, early childhood development, and social inclusion, to name a few (WHO, 2023). Health inequities are closely tied to the social determinants of health, with those in lower socioeconomic positions experiencing poorer health outcomes. The social determinants of health have been found to have a greater impact on health status than either healthcare or lifestyle factors (WHO, 2023).

Disparities in infant feeding practices, such as breastfeeding, have been linked to the social determinants of health. In a secondary analysis of cross-sectional data from the 2017-2018 Canadian Community Health Survey, data from 5392 women revealed that increased rates of breastfeeding are associated with higher levels of educational attainment, specifically a bachelor's

degree or higher (Ricci et al., 2023). Rates of exclusive breastfeeding were also found to increase with increased maternal age, in married women, in women who have immigrated to Canada, and in situations where mothers exclusively co-sleep with infants (Ricci et al., 2023). Rurality also impacts rates of exclusive breastfeeding; it was found that mothers living in rural areas have lower rates of exclusive breastfeeding in comparison to women living in urban centers. Interestingly, it was noted that rates of exclusive breastfeeding increase in individuals with a more positive perception of their mental health status (Ricci et al., 2023). Various socioeconomic factors influence breastfeeding initiation and duration rates, as well as exclusivity. It is essential to understand how the social determinants of health impact infant feeding practices and to incorporate this knowledge when building strategies that aim to increase rates of exclusive breastfeeding.

Breastfeeding and Postpartum Depression

There is a lack of clarity regarding the relationship between postpartum depression and breastfeeding. This relationship is complicated by limited information on causality and the impact of mediating and moderating variables. In a cross-sectional study of 426 new mothers in Bangladesh who were six months postpartum, it was reported that in comparison to mothers who exclusively breastfed, mothers who did not exclusively breastfeed were 7.58 times more likely to experience postpartum depression (95% CI [3.94-14.59]) (Islam et al., 2021). Maternal stress and social support were also identified as mediators of the relationship between exclusive breastfeeding and postpartum depression, with mothers who had early cessation of exclusive breastfeeding in the presence of increased stress and low levels of social support exhibiting a significantly higher likelihood of experiencing postpartum depression (Islam et al., 2021). It was also noted in this study that women who engage in mixed infant feeding methods have a higher incidence of

postpartum depression (58.5%) than women who either exclusively breastfeed (8.6%) or exclusively formula-feed (44.7%) (Islam et al., 2021).

In a secondary analysis of over 14,000 British mothers, Borra et al. (2015) attempted to identify the causal effect between breastfeeding and postpartum depression and concluded that there is insufficient evidence to identify a causal relationship between these variables. Instead, they found that this relationship was moderated by the intent to breastfeed and a mother's mental health status during pregnancy (Borra et al., 2015). More specifically, for women who did not show signs of depression during pregnancy, it was found that those who intended to breastfeed and breastfed as planned had the lowest risk of experiencing postpartum depression. While those who intended to breastfeed and could not breastfeed as planned had the highest risk (Borra et al., 2015). Similar results were found in a cross-sectional online survey of 3253 women from Brazil, South Korea, Taiwan, Thailand, and the UK (Chang et al., 2022). Investigating the associations between intent to breastfeed and post-natal depression during the COVID-19 pandemic, Chang et al. (2022) found that women who intended to breastfeed and breastfed as planned had the lowest rates of postpartum depression.

Using the Edinburgh Postnatal Depression Scale, a validated screening tool commonly used with mothers to detect symptoms of postpartum depression (Cox et al., 1987), multiple researchers have found that women who exclusively breastfeed have fewer depressive symptoms than women who use alternative infant feeding methods (Chih et al., 2021; Sha et al., 2019). In a prospective study of 956 mother-infant dyads using data from a community-based birth cohort in China, Sha et al. (2019) investigated the association between postpartum depression and infant feeding practices. More than 70% of women in their study exclusively breastfed during the first month postpartum; however, when depressive symptoms were present, this rate decreased to 57% (Sha et al., 2019).

Mothers experiencing symptoms of postpartum depression at four weeks postpartum were also more likely to discontinue breastfeeding (Sha et al., 2019). Their results indicated that symptoms of postpartum depression were associated with a shorter duration of exclusive breastfeeding ($p < 0.001$) and a higher likelihood of formula supplementation ($p = 0.016$).

Similar results were found in a secondary analysis of birth cohort data from Australia (Chih et al., 2021). In this study, mothers who were exclusively formula-feeding at the time of hospital discharge were 51% more likely to experience symptoms of postpartum depression (Chih et al., 2021). It is clear from this data that there is a correlation between exclusive breastfeeding and rates of postpartum depression; more specifically, higher rates of exclusive breastfeeding are associated with lower rates of postpartum depression (Chih et al., 2021; Islam et al., 2019; Sha et al., 2021). Therefore, breastfeeding support aimed at improving rates of exclusive breastfeeding can serve as a means of decreasing rates of postpartum depression.

Registered Nurse Lactation Consultants

International Board-Certified Lactation Consultants (IBCLCs) are perinatal care providers with advanced training in breastfeeding and lactation care (IBLCE, 2018). IBCLCs work collaboratively to promote and support breastfeeding while reducing the risks associated with non-exclusive breastfeeding (IBLCE, 2018). LCs work in various contexts, including acute care, community care, or a combination of both areas (B. Benoit, personal communication, January 4, 2023). In Nova Scotia, a small number of RN LCs are employed within the publicly funded healthcare system. Unfortunately, most LCs working in community care are only accessible privately, which introduces a significant gap in access to LC services. Access to LC services varies regionally; therefore, differences in access to LC support are inequitably distributed across the province (B. Benoit, personal communication, January 4, 2023).

The IBCLC Scope of Practice is an international document that outlines the practice activities that IBCLCs are educated in and authorized to perform (IBLCE, 2018). Several of these interventions could be used to guide IBCLCs in supporting maternal mental health. For example, IBCLCs must acknowledge mental status as it pertains to breastfeeding, support and encourage women in meeting their breastfeeding goals, and use effective counselling techniques when engaging with clients (IBLCE, 2018). In addition to their role as IBCLCs providing breastfeeding support, RN LCs in Nova Scotia are also required to meet the Entry-Level Competencies for the Practice of Registered Nurses, which includes providing holistic nursing care that considers the physical, emotional, social, economic, and spiritual needs of clients and incorporating mental health promotion into the provision of nursing care (Nova Scotia College of Nursing [NSCN], 2020). While providing breastfeeding support, RN LCs must also uphold the scope of practice of RNs, and addressing mental health is part of their role.

Many women who wish to breastfeed seek LC support in the postpartum period. Breastfeeding support provided to mothers is felt to be well-received and effective in increasing breastfeeding duration. In an observational, cross-sectional study of 210 women in the United States, Keim et al. (2019) found that 71% of participants reported positive perceptions of LC support. Women reporting negative perceptions of LC support had a less successful breastfeeding experience (95% CI [−27.8, −11.3]) and a shorter total duration of milk production (95% CI [0.18, 0.84]). When it comes to care provided to mothers throughout the perinatal period, it matters how women feel about the care they receive (Keim, 2019).

In an observational quasi-experimental study of women in Poland (n =160), it was found that of those women who received LC support (n = 90), 78.9% demonstrated increases in breastfeeding self-efficacy; initial breastfeeding self-efficacy was found to be a significant

predictor of mental health outcomes (Chrzan-Detkos et al.. 2021). There was also a significant decrease in mental health difficulties among mothers in the intervention group one month after LC appointments ($t = 5.126$, $p < .001$); furthermore, of the 48 mothers who self-reported supplementing with formula, 23 (47.9%) were able to resume exclusive breastfeeding following LC support (Chrzan-Detkos et al., 2021).

Women who report a positive experience with LC support report improved mood, decreased anxiety, increased breastfeeding self-efficacy, and longer breastfeeding duration rates (Chrzan-Detkos et al., 2021; Keim et al., 2021). LC support focused on maternal concerns improves maternal health outcomes. LC appointments are an opportunity to screen for PMHDs using brief validated scales such as the Edinburgh Postnatal Depression Scale (Chrzan-Detkos et al., 2021; Cox et al., 1987). Early identification of breastfeeding mothers with symptoms of PMHDs is needed to reduce the morbidity and mortality associated with PMHDs and to promote increased breastfeeding initiation and duration rates (CPMHC, 2021; RNAO, 2018; Slomian et al., 2019). Breastfeeding support is recommended to extend beyond hospitalization and into the first few months postpartum (Li et al., 2008). LC appointments during this period provide an ideal opportunity for education and screening related to PMHDs.

Rationale for the Research Study

A comprehensive understanding of healthcare services requires information on the experiences of those accessing healthcare services and the experiences of healthcare service providers. A decision was made to explore the experiences of LCs to gain a better understanding of the experiences of RN LC services across Nova Scotia related to supporting maternal mental health. All women in the perinatal period are at risk of experiencing PMHDs; however, difficulty breastfeeding is associated with an increased risk of developing a PMHD (Islam et al., 2021; Shen

et al., 2023). In the postpartum period, it is assumed that LCs are working predominantly with women facing breastfeeding challenges, and as a result, they have an increased risk of experiencing PMHDs (Islam et al., 2021; Shen et al., 2023). Therefore, it is reasonable to acknowledge that LC services could be used to enhance support for maternal mental health in the perinatal period (Chrzan-Detkos et al., 2021).

Women in Nova Scotia have the highest rates of PMHDs in Canada, and rates of exclusive breastfeeding in Nova Scotia are among the lowest in the country (Statistics Canada, 2019; 2022). These statistics are alarming and warrant further exploration. Public health policy and access to healthcare services that promote exclusive breastfeeding and a reduction in PMHDs are crucial to improving the health of women, children, families, and communities in Nova Scotia. RN LCs can help improve rates of breastfeeding and PMHDs by promoting breastfeeding, supporting mothers through breastfeeding challenges, addressing maternal mental health concerns, and providing screening for PMHDs during LC appointments.

Based on the aforementioned information, the following research questions were developed to guide the proposed study:

- What are the experiences of Registered Nurse Lactation Consultants in Nova Scotia related to maternal mental health?
- How do Registered Nurse Lactation Consultants incorporate mental health services into their care?
- How does access to Registered Nurse Lactation Consultant services impact maternal mental health as perceived by Registered Nurse Lactation Consultants?

Chapter 3. Methods

This chapter will begin with a brief overview of qualitative research, followed by a more in-depth discussion of qualitative description (QD), the methodology used in this study. The chapter will also discuss the conceptual model guiding the study and the research methods, including participants and recruitment, as well as data collection, management, and analysis. A discussion of trustworthiness and reflexivity will follow this, and the last section of this chapter will discuss strategies utilized to ensure ethical research conduct.

Qualitative Research

Qualitative research is an approach to inquiry where researchers seek to observe and interpret phenomena in natural settings while incorporating the meanings participants attribute to their experiences (Creswell & Poth, 2018; Denzin & Lincoln, 2011). Selecting an appropriate methodology is considered one of the most fundamental steps in the research process and a precursor to rigorous qualitative research (Doyle et al., 2020; Teherani et al., 2015).

Qualitative Description

QD is a valid methodological approach that has been widely used in the study of nursing-related phenomena (Kim et al., 2017; Polit & Beck, 2014; Sandelowski, 2010). This approach is used when the research aims to describe participants' perceptions or experiences relating to a specific phenomenon (Bradshaw et al., 2017; Neergard et al., 2009). QD is the foundation of all qualitative research and a standalone methodological approach (Doyle et al., 2020; Sandelowski, 2000). The purpose of QD is to present a comprehensive description of research findings that reflect the participants' experiences by remaining close to the surface meanings of collected data (Bradshaw et al., 2017; Kim et al., 2017; Neergaard et al., 2009; Sandelowski, 2000).

Interpretation is present in all qualitative research; however, QD uses a low-inference approach to interpretation that allows researchers to remain close to the research data (Bradshaw et al., 2017; Kim et al., 2017; Sandelowski, 2000). Instead of interpreting the underlying meanings behind what participants say, QD provides an opportunity to share the participants' voices by using their actual words whenever possible. Using low-inference descriptions increases consensus among researchers, making it more likely to achieve agreement on research findings (Kim et al., 2017; Neergaard et al., 2009; Sandelowski, 2000). This is the first study to my knowledge examining the experiences of RN LCs related to maternal mental health, therefore, using a low inference approach is a logical starting point to map a beginning understanding of their experiences (Bradshaw et al., 2017; Kim et al., 2017).

The inductive approach associated with QD encourages researchers to situate findings within the collected data instead of within theories (Kim et al., 2017; Lambert & Lambert, 2012). Researchers are less committed to theories and philosophical frameworks; however, this is beneficial as it promotes flexibility when conducting research (Kim et al., 2017; Sandelowski, 2010). Qualitative researchers need to be able to explicitly state their views when beginning a research study and remain open-minded regarding their theoretical and philosophical assumptions (Sandelowski, 2010). QD studies can start with a theory of the phenomenon under investigation; however, results of QD studies can develop while remaining close to the words of participants because there is no obligation to ensure that findings fit neatly within predetermined theoretical frameworks (Colorafi & Evans, 2016; Kim et al., 2017; Sandelowski, 2010). Flexibility assists researchers in remaining true to research findings by continually incorporating new knowledge produced throughout the research process (Creswell & Poth, 2018; Kim et al., 2017). As previously mentioned, there needs to be more research exploring the experiences of RN LCs related to

maternal mental health. Using QD will provide an opportunity to gain preliminary insights into these experiences (Neergaard et al., 2009). As little is known on the topic, an inductive approach where specific observations are collected, observed for patterns, and potentially used for theory development is appropriate for answering the research questions.

Philosophical Assumptions

Philosophical assumptions guide ontological and epistemological beliefs and assist researchers in identifying what knowledge is required and how it can be collected, interpreted, and utilized (Bradshaw et al., 2017). Relativism is the ontological assumption of qualitative research approaches such as QD. This approach asserts that reality is subjective and multiple interpretations of the same phenomenon can co-exist; therefore, there are many different realities (Bradshaw et al., 2017; Levers, 2013). Subjectivism is the epistemological assumption of qualitative research, acknowledging that reality is based upon the subjective experiences of individuals, including the researcher (Bradshaw et al., 2017). QD is a naturalistic approach to research that strives to understand phenomena by analyzing and interpreting participants' experiences and the meaning they attribute to the phenomenon using an inductive approach (Bradshaw et al., 2017). This research study aims to understand the experiences of RN LCs related to maternal mental health by synthesizing and collating their individual subjective experiences.

Critiques Regarding QD

QD methodological approaches have been criticized for appearing as a more basic form of qualitative research (Doyle et al., 2020; Sandelowski, 2000). On the spectrum of approaches to qualitative research, QD is regarded as the least theoretical (Kim et al., 2017; Neergaard et al., 2009; Sandelowski, 2000). It is important to note that QD is not atheoretical simply because it does not require a priori adherence to a single theoretical perspective (Sandelowski, 2000, 2010). Novice

researchers often feel compelled to label their research as one of the traditional approaches to qualitative research, such as phenomenology or grounded theory, even when their work does not meet the specific requirements of the identified approach (Bradshaw et al., 2017; Lambert & Lambert, 2012; Sandelowski, 2000). An approach that is not constrained by a specific theory, such as that offered by QD, benefits the research questions being investigated in this study. There is a lack of research on the experiences of RN LCs related to maternal mental health, therefore, QD provides an opportunity to offer preliminary insights into these experiences without having to situate the collected data within a theoretical framework.

Another critique of QD is that a lack of methodological guidance and information regarding this approach is a barrier to perceiving QD as an acceptable and rigorous approach to qualitative research (Doyle et al., 2020; Neergaard et al., 2009; Sandelowski, 2000). However, similar to other qualitative research methods, guidelines for QD indicated that researchers must demonstrate consistent and systematic approaches to data analysis such as transcription, the development of initial codes, data coding, arranging similar codes into categories, redefining and revising initial codes, memoing, arranging the data and collating data in a rigorous way that best represents the study findings (Colorafi & Evans, 2016; Doyle, 2020). Researchers are also encouraged to be transparent regarding their methodological decision making so that the trustworthiness of the research study and associated findings can be delineated by readers (Hallberg, 2013), which includes an acknowledgement of the researchers' influence in the research process and the need to engage in reflexive practice (Colorafi & Evans, 2016). I will work to minimize any concerns regarding the rigor or trustworthiness of this research project by upholding the principles of credibility, transferability, dependability, and confirmability and by being transparent about the research process and my influence on the research study.

Rationale for Using QD

A QD approach is applicable when information is collected directly from individuals experiencing a specific phenomenon (Bradshaw et al., 2017). Researchers employ QD when the aim is to provide an accurate and comprehensive description of participants' experiences by remaining close to the surface meanings of collected data (Bradshaw et al., 2017; Kim et al., 2017; Sandelowski, 2000). Widely used in nursing research, QD focuses on who, what, and where questions to gain insight into poorly understood phenomena or to provide new perspectives on previously researched phenomena (Bradshaw et al., 2017; Kim et al., 2017). Based on the aforementioned information, QD is an appropriate methodological approach to explore the proposed research questions:

- What are the experiences of Registered Nurse Lactation Consultants in Nova Scotia related to maternal mental health?
- How do Registered Nurse Lactation Consultants incorporate mental health services into their care?
- How does access to Registered Nurse Lactation Consultant services impact maternal mental health as perceived by Registered Nurse Lactation Consultants?

QD is encouraged in master's level nursing research as an effective way for novice nurse researchers to answer important healthcare questions (Colorafi & Evans, 2016; Doyle et al., 2020). Unlike other methodologies, QD is free from the constraints of theories and frameworks and is an appropriate methodology for small-scale studies looking to gain preliminary insights (Neergaard et al., 2009). Exclusive breastfeeding is correlated with lower rates of PMHDs (Chih et al., 2021; Sha et al., 2019). LC support positively influences maternal mental health; however, there is a need for more accessible mental health care for Canadian mothers (Keim et al., 2021; Vigod et al., 2021).

Research has addressed LC support from the perspective of mothers; however, there is a lack of information regarding the experiences of the LCs who provide this support (Keim et al., 2021). Using a QD approach will provide an opportunity to gain preliminary insights into the experiences of RN LCs related to maternal mental health, how they incorporate mental health services into their care, and how they view their role within the healthcare system (Lambert & Lambert, 2012; Neergaard et al., 2009).

Conceptual Framework

The current research study is guided by the Social Ecological Model (SEM). The SEM conceptualizes health broadly and focuses on a multitude of factors that interact to influence health, recognizing that individuals affect and are affected by multiple influences and interactions (Bronfenbrenner, 1989). The SEM has been recently used in research addressing both perinatal mental health (Jarvis et al., 2021) and breastfeeding (Snyder et al., 2021). Adapted from the SEM, the conceptual model for the proposed study takes into consideration factors at the individual, interpersonal, community and societal levels and how they interact to influence the mental health of women who wish to breastfeed (see Figure 1). At the center of the model is the breastfeeding mother, an individual influenced by their values and beliefs, and in relation to the proposed study, their knowledge and experiences with breastfeeding, mental well-being and PMHDs. Individual risk factors such as life stress, low self-esteem, difficulty breastfeeding and intent to breastfeed can increase the likelihood of a woman who wants to breastfeed developing a PMHD (Borra et al., 2015; Islam et al., 2021; RNAO, 2018).

The second ring of the conceptual model is interpersonal relationships, which includes relationships with a spouse or partner, family, or friends. The interactions within interpersonal relationships influence the likelihood of a woman breastfeeding and/or developing a PMHD. For

example, low levels of social support are a risk factor for both decreased breastfeeding duration and the development of PMHDs (Borra et al., 2015; Islam et al., 2021). Health inequities are more than individual and interpersonal factors, they also include the interplay of larger social and environmental factors, this is exemplified in the third ring, community. Community in this example can include nurses, physicians, lactation consultants and communities of which the individual is a part of, as well as what services the individual has access to within their community.

The outer ring of the conceptual model is society, which encompasses the broader health system and the delivery of healthcare services (such as policies and/or resources to support breastfeeding or screening of PMHDs). Canada lacks a national policy for addressing, screening, and treating PMHDs (CPMHC, 2021) and in Nova Scotia there are inequities in access to LC services across the province (B. Benoit, personal communication, January 4, 2023). The proposed conceptual model acknowledges that breastfeeding behaviors and the likelihood of experiencing a PMHD vary among individuals, but that the interaction of various interpersonal, community, and societal factors influence the likelihood that an individual woman will breastfeed and/or experience a PMHD.

Data Collection

Participants

The sample for this study included ten RN LCs currently working within the publicly funded healthcare system in Nova Scotia. There are two health authorities providing services within Nova Scotia: Nova Scotia Health (NSH) and Izaak Walton Killam (IWK) Health. NSH is divided into four health management zones: Northern, Eastern, Central, and Western and provides perinatal services through its women and children's program to individuals distributed across the province, in predominantly rural settings. IWK Health is located within the central zone and is a

tertiary maternal and pediatric specialty referral center that serves the maritime provinces and is based in an urban environment. To gain a representative sample, participants were recruited from both health authorities and included representation from each of the four health management zones.

Sampling and Sample Size

Sampling and sample sizes are essential considerations for qualitative researchers who strive to implement sampling techniques that reflect the research design and questions (Bradshaw et al., 2017). Purposive sampling is the process most frequently used in QD research studies and includes techniques such as convenience, maximum variation, and snowball sampling (Kim et al., 2017). In purposive sampling, researchers select the participants they feel are most appropriate for answering the research question (Busetto et al., 2020; Palinkas et al., 2015). This allows researchers to select readily available and accessible individuals experiencing the phenomenon under investigation (Bradshaw et al., 2017). Convenience and snowball sampling, standard techniques in QD research were used to access potential participants (Kim et al., 2017).

Small sample sizes are characteristic of qualitative research. Although proposed sample sizes are expressed in research proposals, adequate sample sizes are achieved when researchers can adequately address the research question (Bradshaw et al., 2017). The most frequently reported sample sizes in QD studies range from 8-20 participants (Kim et al., 2017); however, there are a small number of RN LCs working within Nova Scotia. Eight to ten participants were considered feasible for the purposes of this study.

Participant Recruitment

Recruitment of participants began after obtaining ethical approval from the Athabasca University (March 7, 2023; #25193) (see Appendix A), NSH (May 5, 2023; #1029160) (see Appendix B) and IWK Health (May 11, 2023; #1029160) (see Appendix C) Research Ethics

Boards. Initial recruitment strategies leveraged primary investigator and committee member connections, as well as ongoing research relationships with RN LCs in Nova Scotia. Once the professional email addresses of RN LCs were obtained, recruitment emails were individually sent to each potential participant via their professional email address. Potential participants were emailed an invitation to participate (see Appendix D) and asked to contact the primary researcher via email if they were interested in participating in the study. If there was no reply to the initial email, a maximum of two follow-up emails were sent.

Participants who agreed to participate in the study were sent a Letter of Information/ Informed Consent form (see Appendix E). Interested participants were asked to refer other potential participants to the study through snowball sampling. Interviews were scheduled with participants at a time that worked best for their schedule. Prior to the start of the research interview, the informed consent form was reviewed with the participants, and they were given time to ask questions and seek clarification if needed. If the participant agreed to proceed with the research interview, their informed consent was collected verbally through a recorded conversation on Microsoft Teams and recorded in paper format by the primary researcher.

Sample Characteristics

Participants included ten RN LCs working within the publicly funded healthcare system in Nova Scotia. The sample included participants from both NSH (n = 8) and IWK Health (n = 2) from within all four health zones. One participant did not have an active IBCLC designation at the time of the interview, however, had previously held designation and practiced in this role. Participants were working as RN LCs in acute care, primary care, and community settings in both part-time and full-time roles. Participants had been RNs for between 3-38 years with an average of 21 years and had been working as LCs for between 2-20 years, with an average of nine years.

Data Collection

In QD research studies, most data collection occurs using open-ended semi-structured interviews with individuals or in the context of focus groups (Bradshaw et al., 2017; Kim et al., 2017; Sandelowski, 2000). A researcher's observation of phenomena, field notes or memos, as well as documents and artifacts, may also be compiled during data collection (Kim et al., 2017; Sandelowski, 2000). Data collection focuses on answering who, what, or where questions to gain insight into the phenomenon being studied (Sandelowski, 2000).

Data collection occurred using semi-structured interviews and the guidance of a semi-structured interview protocol (see Appendix F). Given the unique contexts in which RN LCs are practicing, semi-structured interviews were an effective method of data collection (Bradshaw et al., 2017; Doyle et al., 2020). As the primary investigator, I conducted all interviews one-on-one with participants. Interviews lasted between 37.5 and 77.5 minutes (mean = 54.5). One interview occurred over two sessions on the same day, all other interviews were conducted in one session. Interviews occurred over Microsoft Teams and all interviews were audio-recorded. Nine of the ten interviews were also video recorded.

Data Preparation

Transcripts were initially prepared using the transcription function on Microsoft Teams. These transcripts were then converted to Word files and checked for accuracy. Transcripts were reviewed while listening to audio files and errors in the Microsoft Teams transcription were corrected by the primary researcher to ensure verbatim transcription prior to data analysis. During transcription, identifying information was redacted and replaced with bracketed comments for example, [name redacted], to protect the confidentiality of research participants. Each transcript was read while reviewing audio recordings and assigned a pseudonym before being uploaded to

NVivo 14 for data management. During the process of informed consent, eight participants agreed to participate in member checking. These participants were emailed a copy of their transcript and asked to verify the accuracy of the transcript and provided with an opportunity to make clarifications if necessary. Six of the eight participants responded to requests for member checking. Two participants provided edits and clarifications associated with their transcript, the remaining four participants communicated approval of their transcripts as sent by the primary investigator.

Data Storage

Transcripts were stored on Athabasca University's OneDrive and the primary researcher's password-protected computer. Audio recordings, video recordings and transcripts were stored as password-protected files; passwords were only available to the primary researcher. Information regarding the pseudonym naming system was stored in a filing cabinet at the primary researcher's office in a paper copy master list. No personal identifying information was stored with audio, video, or paper research files. This information and any printed information used in data analysis are double-locked (in a locked filing cabinet in a locked office that is only accessible to the primary researcher). Following direction from the Athabasca University Research Services Office, all data will be retained for five years after study closure, then irreversibly destroyed, and appropriately disposed of. All paper records and electronic files will be permanently deleted by the primary investigator according to best practices outlined by the Athabasca University Research Ethics Board.

Data Analysis and Representation

Qualitative content analysis and thematic analysis are common approaches to data analysis in QD research studies; however, qualitative content analysis is the preferred method when using a QD approach (Kim et al., 2017; Sandelowski, 2000). The goal of analyzing data derived from a QD

methodology is to provide a clear description of the research data (Kim et al., 2017; Sandelowski, 2000). Qualitative content analysis is derived from the research data, and codes are developed from within the research study to highlight patterns or themes in the data (Creswell & Poth, 2018; Sandelowski, 2000). Pre-determined codes may guide qualitative content analysis; however, the researcher must remain amendable to modifying these codes throughout the research process (Sandelowski, 2000). Qualitative research follows an iterative process wherein data collection and analysis co-occur (Creswell & Poth, 2018).

In line with these findings, data collected for this research study was analyzed using qualitative content analysis. There are no steadfast rules or guidelines to follow when analyzing qualitative data. Still, descriptive qualitative analysis has common characteristics, and researchers must demonstrate consistent and systematic approaches to data analysis such as transcription, the development of initial codes, data coding, arranging similar codes into categories, redefining and revising initial codes, memoing, and arranging and collating data in a rigorous way that best represents the study findings (Colorafi & Evans, 2016). It is important to note that this is an iterative and recursive process as opposed to a list of linear directives (Colorafi & Evans, 2016). NVivo 14 software was used to assist with data management and analysis. Although NVivo assists with analysis by aiding in data management, it is not a replacement for the researcher's active participation in the research process.

The data analysis process began by transcribing and sorting research data, conducting the initial level of coding and then using memos to reflect on the initial procedure (Colorafi & Evans, 2016). The initial coding process began by reading and re-reading transcripts, as well as listening to audio recordings of transcripts. Analytic memos were made on the margins of printed transcripts during the process of reviewing transcripts. This was followed by detailed line-by-line coding,

where whenever possible, codes were derived from the words of participants. Transcripts were coded using NVivo 14 one participant at a time. Once initial codes were formed, multiple codes were re-named to derive a broader meaning prior to thematic grouping. Common codes were synthesized under more prominent themes to represent the data, again using the words of participants when possible. Transcripts were reviewed twice during the process of coding. Once all codes were established, data in each code was reviewed by the primary researcher to ensure accuracy. Thematic grouping occurred once all individual transcripts were coded.

Emerging patterns and themes provide a focus for further data collection and an opportunity to describe consistencies in the research data (Colorafi & Evans, 2016). In QD, researchers expect to remain close to the research data by employing low levels of interpretation; however, it is acceptable for common themes to be described and reported as research findings (Colorafi & Evans, 2016). Coding and the derivation of broader themes is an iterative process that repeatedly occurs until no new codes or themes emerge from within or across transcripts. QD studies aim to describe and summarize research findings using easily understood language that accurately reflects the experience of research participants (Sandelowski, 2000; Neergaard et al., 2017). Following thematic grouping, the study results were collated using multiple participant quotes to provide a descriptive representation of the data collected from RN LCs in Nova Scotia.

Trustworthiness

Rigor is the critical process of building confidence and establishing trust in the quality of qualitative research, including QD (Johnson et al., 2020; Lincoln & Guba, 1985). Data quality is an important consideration to ensure that high-quality research is collected, analyzed, and reported. Researchers demonstrate the trustworthiness of their work by considering the principles of credibility, transferability, dependability, and confirmability (Bradshaw et al., 2017; Lincoln &

Guba, 1985). Credibility confirms the truth in research findings and can be enhanced by establishing rapport, reviewing transcripts, employing member checks, engaging in reflexivity, and using direct quotes in research findings (Johnson et al., 2020; Korstjens & Moser, 2018). To enhance credibility, transcripts were reviewed a minimum of twice during the process of transcription and read multiple times prior to beginning line-by-line coding for the purposes of analysis. Whenever possible, direct participant quotes were used in coding, the creation of themes and during the preparation of research results. Member checks were employed with consenting participants, and I engaged in reflexive practice by maintaining a current and up-to-date reflexive research journal that documented methodological decisions and procedural notes. Personal reflections were completed following each interview and included information on how my values and beliefs may impact the research process.

Transferability reflects the degree to which results can be transferred to similar contexts or individuals and is achieved with detailed descriptions and the use of reflexive journals (Bradshaw et al., 2017; Johnson et al., 2020; Korstjens & Moser, 2018). This study included information on the general participant population of RN LCs in Nova Scotia; however, to protect participant confidentiality detailed information on the participants will not be included. Detailed descriptions of research decisions were tracked in my reflexive research journal. Dependability offers detailed descriptions, and an audit trail that provides the context for replicating the current research study (Bradshaw et al., 2017; Johnson et al., 2020; Korstjens & Moser, 2018), my reflexive research journal and manuscript preparation include sufficient information so that replication would be possible.

Finally, confirmability attempts to demonstrate that results are reflective of the information obtained and not based solely upon the subjective bias of the researcher (Bradshaw et al., 2017;

Johnson et al., 2020; Korstjens & Moser, 2018). I used a reflexive research journal to increase self-awareness regarding how I influence the research study. This reflexive journal included details such as how my personal values and beliefs influence the research process as well as how I felt following each interview and the data that was collected. As Saldana (2018) notes, qualitative researchers must be able to self-analyze prior to being able to successfully analyze someone else. Using appropriate interview techniques and self-reflecting on ways to improve interview techniques as I developed my skills as a novice researcher also contributed to increased confirmability.

Quality QD research requires an ability to demonstrate credibility, transferability, dependability, and confirmability that reflects the research methodology and is aligned with the research question (Bradshaw et al., 2017). QD has been criticized for lacking rigor in terms of credibility; however, by staying close to the data and providing a genuinely emic perspective, QD has been established as both credible and rigorous (Neergaard et al., 2009). Rigor is an essential consideration in the research process. It outlines standards for high-quality qualitative research and helps researchers address biases that would otherwise negatively impact the research findings (Johnson et al., 2020). Rigor in this research study was demonstrated in using a number of methods such as purposive sampling, detailed description, member checking, direct quotes from participants and reflexive journaling.

Reflexivity

As instruments of qualitative research, researchers are uniquely connected to the people and phenomena they study (Creswell & Poth, 2018). Qualitative researchers must be self-aware and reflect on how their values, biases, and experiences influence multiple aspects of the research study (Berger, 2015; Creswell & Poth, 2018; Orange, 2016). This process, known as reflexivity, is

necessary for creating high-quality qualitative research and can be initiated using strategies such as reflexive research journals (Berger, 2015; Ortlipp, 2008). Reflexivity encourages researchers to consider the ethical implications of their work at all stages of the research process (Creswell & Poth, 2018). Reflexivity is difficult for novice researchers; however, researchers engaging in high-quality qualitative research must be able to analyze themselves before successfully analyzing someone else (Berger, 2015; Saldana, 2018). I was able to engage in reflexivity using a reflexive research journal that documented methodological decisions, procedural notes, my reflections following each interview as well as how my personal values and beliefs impacted the research process.

Ethical Considerations

The following section will consider several ethical principles including informed consent, voluntary participation, the right to withdraw, confidentiality, the potential for harm, and the communication of research results. Ethical approval was obtained from the Research Ethics Boards at Athabasca University, NSH and IWK Health. Potential participants who reached out to the primary investigator to participate in the study were provided with a Letter of Information/Informed Consent via email. This letter described the purpose and goals of the research study; what was required of the participant to participate in the research study; the risks and benefits to the participant; the ways in which privacy, confidentiality and anonymity were promoted; data collection and storage; and who will receive the research results. The document concluded with a consent form, which participants were encouraged to review prior to the scheduled interview time. Informed consent was obtained prior to the commencement of the research interview, where the primary investigator reviewed information on the consent form and provided an opportunity for the participant to ask questions or seek clarification. Informed consent

was obtained during a recorded conversation on Microsoft Teams and in a paper copy by the primary researcher. During the process of obtaining informed consent, participants were reminded that their participation was voluntary and that they had the right to withdraw from the research study at any time during the interview and at any time until data analysis began. Participants were told that they could withdraw without providing a reason, and that doing so would not affect them now or in the future. Participants were instructed to contact the primary investigator prior to June 30th, 2023, to withdraw consent after the interview and to have their information removed from the data analysis process. Participants who completed interviews after June 30, 2023, were informed that they could withdraw consent and have data removed from the study up until two weeks following the interview. Participants were reminded of the specific date at the end of the research interview; no participants withdrew consent.

The ethical duty of confidentiality includes safeguarding participants' identities, personal information, and data from unauthorized access, use or disclosure. The primary researcher made it clear that all information collected would be held confidential, except when legislation or a professional code of conduct required that the information provided be reported. Participant privacy and confidentiality was protected by removing names from any data during transcription and by redacting potentially identifiable information. All interviews were conducted one-on-one with the principal investigator as a means of increasing privacy during the process of data collection. Data storage and management, as previously described, followed best practices for ethics as a means of promoting participant confidentiality. Participants were also provided information regarding the risks of participation and the potential for harm. It was disclosed that participating in this research may bring forth heightened emotional responses or distress as difficult nursing experiences related to maternal mental health may be brought forth during the interview

process. If a participant were to become distressed during the interview, they would have been reminded of the ethical principles of voluntary participation and the right to withdraw and provided with support as per the Participant Distress Protocol (see Appendix G). Activation of the Participant Distress Protocol was not required during this research project.

Communication of research results is also an important ethical consideration. Participants were given an option during the process of informed consent to be contacted following their initial interview to engage in member checking. Eight participants consented to member checking. Member checking is an important method of establishing credibility within qualitative research (Lincoln & Guba, 1985). Given the small population from which the participants were recruited from, member checking was used as a method of verifying accuracy and promoting confidentiality by ensuring that participants were comfortable with the dissemination of information disclosed within the interview. Participants who agreed to engage in member checking had the option to review emailed copies of their transcribed interviews. Five of the eight participants who agreed to participate in member checking reviewed interview transcripts. During the process of informed consent, participants were also asked if they would like to receive a copy of the final research report. All participants consented, and this document will be forwarded to participants when complete. In addition to being provided with a copy of the final thesis project, participants will receive copies of any manuscripts prepared for publication.

Chapter 4. Results

This chapter will begin with a summary of the participants who participated in this research study. Following this, the main study findings will be presented according to the following five themes: (1) Availability of Breastfeeding Support, (2) Experiences Supporting Maternal Mental Health, (3) Providing Maternal Mental Health Care, (4) Access to Services, and (5) Mothers Need Support.

Overview

Participants in this study consisted of ten RN LCs working in acute care, primary care, and community settings in both part-time and full-time roles. Participants were working within the publicly funded healthcare system (NSH and IWK Health) in sites across Nova Scotia and had been in their current roles for between 1-20 years (mean = 9.5). RN LCs in this study had been RNs for between 3-38 years (mean = 21.1) and had been working as RN LCs for between 2-20 years (mean = 9.7). Study findings were analyzed as a means of answering the following overarching research question: What are the experiences of Registered Nurse Lactation Consultants in Nova Scotia related to maternal mental health? As well as two sub-questions: (1) How do Registered Nurse Lactation Consultants incorporate mental health services into their care? and (2) How does access to Lactation Consultant services impact maternal mental health as perceived by Lactation Consultants?

Availability of Breastfeeding Support

RN LCs participating in this study indicated that they were working in both part-time (*n*=7) and full-time (*n*=3) roles. Work environments included acute care, primary care, and community settings. RN LCs in urban areas were more likely to have dedicated time within their schedules to provide direct lactation care on a full-time basis. Participant 10 who works in an urban center

indicated that their role "…is a dedicated role as a lactation consultant nurse…the vision is that you would come in and you would be the LC every day," while Participant 7 added that "…unless they're really short staffed…100% of my time is lactation". Conversely, RN LCs working in rural areas described more variability in the amount of direct lactation support they provided. Participant 1 indicated "I have [one] full day…if there are people that want to come, then I can certainly spend the whole day doing that [providing lactation support]." Several RN LCs indicated that providing lactation support was intertwined with other roles but felt that they had flexibility in their ability to schedule patient visits, which allowed them to prioritize breastfeeding support. For example, when asked if they had dedicated time in their schedule to provide lactation care, Participant 8 indicated "Yes, absolutely. It's a priority actually... I would either reschedule my day to fit her in or cancel the prenatal, reschedule her, and get the lactation in, so lactation is always our priority." Participant 6 echoed these comments,

> …we really have quite a lot of control over our schedule and independence in terms of how we support families and how we build our schedules. So, I would say that I have the ability to use my LC training to support families throughout my role...

Participants indicated that patients requiring breastfeeding support were usually able to access RN LC services on the same day, or the next business day. Participant 2 felt that "…unless I received a referral on Friday, like a Friday afternoon at like 330, I'm usually able to follow-up that day or within the next 48 hours at most", and Participant 6 added that "…the majority of dyads would receive follow-up care within 24 hours unless it's over the weekend." Several participants indicated that there was limited RN LC coverage on evenings and weekends in their practice settings. Participant 9 stated that "we have a lot of messages in the morning, at like 2:00 am, 3:00 am, and we just call them back in the morning…" Recognizing the lack of LC coverage outside of

regular business hours, Participant 10 acknowledged that there are "…probably some gaps, in terms of families being able to see LCs. We do the best we can to support the needs, but there is some prioritization..." Others attempted to bridge this gap, for example, Participant 4 reported that in their place of employment "…we've stayed late for patients, and we've come in on the weekend for patients too", while Participant 8 added that "it's not something we ever advertise, but the staff know if someone calls on a Saturday or a Sunday, or Tuesday night at 11:00 pm and someone's struggling with breastfeeding, we come in. If it's Christmas Day [we come in]."

A mother's first interaction with an RN LC in the perinatal period varied by location and practice area. Participant 4 stated: "There's a lot of variables, but it could be anywhere from 12 weeks to 39 weeks [prenatally]. It depends, but ideally, we like to see them earlier on" and Participant 3 indicated that "they can come once they find out they're pregnant…they can certainly book in with us themselves to see us". RN LCs working in acute care settings, especially in more urban areas, reported that they only interacted with mothers in the immediate postpartum period. In the context of perinatal clinics, RN LCs were able to see mothers as early as the first trimester. Participant 1 indicated that earlier visits were more common in individuals without access to a primary healthcare provider:

> If they don't have a primary healthcare [provider], you know they found out they were pregnant, they go through the Maple program or whatever to get a referral and then they get to see us, right. That's usually how the process goes. If there [are] family physicians involved, then a lot of them will keep them, do the primary care until, you know, 30-32 weeks or until they're comfortable…then we'll see them after that.

Access to publicly funded lactation consultant services varied across Nova Scotia. Some participants reported no time limits to the care they provided, indicating that breastfeeding support

could be given prenatally, in the immediate postpartum period while hospitalized, or as an outpatient. While discussing time limits on access to RN LC care, Participant 6 stated "we've never really addressed it. We just support them when they need us…like we've been referred families who, you know, moms want information about tandem nursing a toddler or a mature feeder and a new baby", Participant 9 added "we see them as long as they need to be seen…we help people with weaning...we'll see them for however long". Summarizing these experiences Participant 3 succinctly stated "…we cover whoever needs it, whenever they need it…we accommodate". Others indicated that their support was unavailable once a patient was discharged from the hospital, or within one to two weeks of hospital discharge. Participant 10 stated:

> Accessing from after discharge is more difficult. It really has been shifted to primary care and in the community…if they needed to come through the emergency department, and then emerg deemed [care necessary], and there was an LC on, so you have to have things line up a little bit [to access an RN LC after discharge].

RN LCs working in more rural settings also acknowledged the variability in access to publicly funded breastfeeding support:

> …you know places throughout the province, that's bigger centers for sure that you know you can have one postpartum visit and that's it…if you need lactation support after a week or after your initial visit, you need to go to a private LC and that's not an option for so many people… (Participant 9).

Experiences Supporting Maternal Mental Health

RN LCs in this study openly described their experiences with maternal mental health in their roles. They discussed how they addressed maternal mental health concerns and the prevalence of PMHDs in their practice settings. Positive and negative experiences supporting maternal mental

health as well as how these experiences impacted their practice as RN LCs were also described by participants.

All RN LCs in this study had experience interacting with women who had a history of or presented with current mental health concerns or PMHDs. It was acknowledged that "when you do lactation support, there is a lot of emotion attached to those pieces" (Participant 10), and that as healthcare providers working with families in the perinatal period, there was an increased likelihood of needing to address maternal mental health concerns. As Participant 2 stated:

> …as a lactation consultant, you know, you don't always see the families who are thriving and doing really well, because they're doing really well, so they don't feel like they need that additional support. So as a lactation consultant, you're really seeing the families who are you know, saying, I'm having a hard time, my baby's having a hard time, we need that help. So I think it's, you know, you do see a lot of families who either breastfeeding is causing them stress, or the stress that they're already experiencing, the you know, mental health concerns that they have may be interrupting that breastfeeding process.

Participants also discussed addressing and supporting maternal mental health as a common occurrence within their roles. As Participant 9 stated:

> We see a lot of people who have pre-existing mental health concerns…I'm thinking of a day like going about seeing postpartum patients and I can't remember the last time I had a day where I didn't, you know, support somebody who had these struggles at some point, whether or not they were like in you know, not everybody's in crisis or struggling hugely when we see them. But you know, most people have some history, I would say.

Prevalence. RN LCs indicated that maternal mental health concerns and PMHDs were becoming more prevalent in their practice areas. Participant 4 stated, "I am more surprised that

people don't have it than if they do…", adding to this, Participant 3 noted that "…it is uncommon today to see folks without some type of mental health issues. It's very prevalent in our area…you come to realize people are really struggling…mental health is part parcel, it's like woven into what we do." Postpartum anxiety and depression were noted to be the most common PMHDs encountered by RN LCs in practice. Participants also expressed working with mothers dealing with the "blues", obsessive-compulsive disorder, and less frequently, postpartum psychosis. When asked to identify the most prevalent PMHD in practice, nine of the ten participants in this study indicated the most prevalent PMHD was anxiety. Participant 2 said "Postpartum anxiety has been huge…I feel like we've definitely seen [postpartum anxiety] on the rise and just being able to recognize the signs a little bit more." Identifying that multiple factors may be contributing to the rise in postpartum anxiety, Participant 1 states:

> …I don't know if it's an age thing. I don't know if people, their coping skills just aren't there. I don't know if it's related to COVID, but people are very anxious about the whole experience of having babies and just life in general…It's so surprising how many people are taking medication…that you would never think would be taking medication…

RN LCs identified several individual factors that influence a mother's mental health and experience with breastfeeding, including age, parity, personality characteristics, past medical history, and education. In terms of age, some participants felt that younger mothers in their late teen years tended to be more anxious, while others stated, "I think the older first-time mother, like 35-40-year-olds. First-time mothers don't, well they struggle…I don't know what it is, but their anxiety is up to here. They don't cope well" (Participant 8). Primiparous women were noted to be more anxious by multiple participants who noted that they felt this was normal given the numerous unknowns surrounding new motherhood. Multiple participants identified women who were

considered as high achievers being more likely to struggle with PMHDs and breastfeeding. Speaking to this, Participant 5 states, "If there's history as far as their mother, you know, familial history. Perfectionism is also something that can make it very difficult for mothers", and Participant 4 adds "…it's so dependent on the support and the situation and their past history, and all those variables." In terms of education, Participant 7 states, "Often, moms that are of lower socioeconomic status, actually they seem to formula feed and you would think it should be the opposite because it's free…but then it comes with education…" and as Participant 9 notes, "…when we think about access to education that's you know, that's a social determinant of health."

Other participants felt that due to the increased prevalence of PMHDs, it would be difficult to discuss individual factors that impacted a mother's experiences. As Participant 9 states:

> …at one point I think I may have said like social economic status, but I don't even know I would say that anymore. Like, I feel mental health struggles and disorders are just so incredibly widespread across every demographic that we see now, and again, especially in our community….I think that it's just incredibly common now across every socioeconomic group, Every age bracket, like every, I just think it's everywhere…

The COVID-19 pandemic was also identified as having a significant impact on the provision of care and the prevalence of PMHDs. Public health measures that resulted in the breakdown of social support were frequently mentioned as potential contributors to the increased prevalence of PMHDs. Many participants discussed how restrictions during the pandemic resulted in feelings of loneliness and isolation for patients, which negatively impacted maternal well-being and increased levels of PMHDs. As Participant 1 states:

> …the biggest thing I would say is the increase people have with their anxiety, prenatally,

> and postnatally…I think people not having parents because when COVID was in [its] height, people weren't letting their parents come, or their in-laws or their sisters come to visit, right. And that's so important for a women's mental health. You don't wanna feel isolated once you've had a baby.

Participant 4 adds that many of these factors continue to impact our perinatal populations today:

> …we're still seeing the repercussions of that, they talk about that when I had my first baby, we didn't see any family. We didn't see any friends and I was all isolated and nobody saw my baby…people almost feel a little bit traumatized and let down by it all.

There was also variance in changes to services offered across practice settings. As Participant 7 states "…our access didn't change like they still got everything they needed from us except their support people. And that was huge for a lot of families," while Participant 2 adds, "…we were really stretched thin in terms of like what services and supports we were able to offer. So I feel like that really has contributed to like the overall mental health concerns with our perinatal populations."

Positive experiences. All participants were able to discuss positive experiences supporting maternal mental health in their role as an RN LC. Positive experiences were related to successfully building rapport and connection with patients and their families, patients reporting positive outcomes following timely support, and RN LCs identifying that they were making a positive impact on the mother. In relation to their positive experiences supporting maternal mental health, Participant 9 indicated that:

> …one of the nicest parts is just seeing people thrive, you know, seeing people's confidence develop and seeing those anxieties subside…you develop your relationships with these

> people and these families, and you really start to see them thrive. So that's my favorite, one of my favorite aspects of it for sure.

One participant discussed a situation where a mother presented to them looking for mental health support. The patient was experiencing a postpartum mental health crisis and the RN LC was able to connect them with immediate medical support, Participant 8 stated that this situation "…was scary for [the mother], but it was very rewarding for us to know that we got her the help she needed immediately." Another participant spoke about how they tell every patient that their unit is a safe space where mothers can just show up, bring their baby, and they will keep them safe until arrangements can be made if they are struggling. Participant 1 stated, "…she showed up one day with her baby…and it was the one time I think that I really thought, okay, they listened, and you know she got it…she knew that we were here for her, and she came." This participant felt that creating a space of safety for this patient was a positive experience. Many participants spoke of being able to identify and support a mother with mental health concerns, and then being able to see them return to states of mental wellness as a positive experience. As Participant 4 identified, "that stuff is hugely rewarding because you feel like, hopefully, we've made a little bit of a difference for that woman."

Negative experiences. No participants expressed negative experiences involving patient-provider interactions while supporting maternal mental health. Most experiences classified as negative were expressed as RN LCs having difficulty providing mothers with appropriate and timely access to support. Participant 4 stated "…I think sometimes it's frustrating…because mental health issues are so prevalent, it's trying to get timely access to supports for the moms", while another participant added "it's a system issue, but I think that mental health within our facility

lacks for moms. They're not prompt enough" (Participant 8). Participant 3 shared their feelings of frustration related to long wait times:

> …we had to wait for a while. This was like January, and she didn't have her appointment until March 31st. I remember being just a gasp saying oh my god, like somebody presents mid-January and they're in crisis, but they're not going to be seen until the end of March.

Some RN LCs indicated it was hard when a mother was not ready to receive support, but this was often mitigated by supporting mothers in ways they were ready to accept. Participant 2 summarizes these experiences well:

> I can't really think of any outwardly negative experiences because you always try and meet the family where they're at. You know, I could see a family and very clearly recognize that this mom has postpartum anxiety. She can't sleep. She's constantly watching her baby. She's hypervigilant. She's, you know, having a really difficult time and you want to be able to say, you know, there are supports and services available, but she's you know, either not recognizing it as an issue, or she's not quite there yet…I don't think I could ever say that I've had an outright negative experience, but it's more so you wanting to be able to provide that support and maybe families just aren't quite there yet.

Participants discussed having difficult conversations with mothers but did not feel these resulted in negative interactions or experiences. Participant 3 spoke to their experience with this:

> Sometimes I've had mother's leave here after you've had to tell them the cold hard fact is that, you know, unfortunately, you know, we've tried this and your production is so low. So we have to look at doing formula, and you know, I've had people like, I don't want to hear that right now. You know, it's really hard for them. They might not be happy at that moment, when we have to tell them that…but we try to do it in a compassionate way...

Interestingly, some participants looked retrospectively at conversations regarding maternal mental health early in their careers and classified some of these experiences as negative based on how they approached these conversations at the time. Participant 10 stated "I think earlier on in my career, when I was more task-focused…I reflect, and those conversations did not go as well because I had an agenda. I did not go in listening and to understand."

Impact on RN LCs. Participants discussed how their experiences supporting maternal mental health impacted their practice as RN LCs. All participants stated that prior experiences supporting maternal mental health positively impacted their practice, and for some, shaped their approach to addressing maternal mental health. Many spoke of how these experiences provided insight into the challenges mothers were facing and a greater understanding of maternal mental health. For example, Participant 9 stated "I think that it just opened my eyes…I personally have just come to understand [maternal mental health] so much more and seeing how it affects all different aspects of their life…", while Participant 3 added, "…I'm really aware that women right now are going through a lot…it's almost like it's epidemic..." Other participants spoke of how a deeper understanding of maternal mental health encouraged them to incorporate maternal mental health support into their care. Participant 2 states:

> …it's made me appreciate mental health a lot more…it's definitely made me incorporate that a lot more into my practice because it has such an impact on their overall well-being, their health, and their ability to be a really good parent…

Participants also discussed how changes in the way they were supporting mothers during the COVID-19 pandemic impacted them as RN LCs. One participant noted, "…it put a lot of extra stress on me to really do more for moms because I thought they were really being underserviced compared to some of the other conversations I was having" (Participant 5). Some participants also

felt like mothers were let down with the services being offered. As Participant 5 states: "…during COVID there's just so many people, so many mom's and babies left behind…these gaps occurred and this should have never happened…infant feeding and mental health are huge. They got forgotten and we, we left them."

Providing Maternal Mental Health Care

Participants in this study indicated that there was variation across the province in terms of how mental health services were incorporated into the care provided by RN LCs. Participants discussed screening practices for PMHDs and the benefits of screening by RN LCs. They also addressed how they felt mothers received the mental health support being provided. RN LCs noted several facilitators and barriers related to incorporating mental health services into their care.

Screening. All participants acknowledged that the Edinburg Postnatal Depression Scale (EPDS) was the most used tool to screen for PMHDs throughout the perinatal period. It was also noted that EPDS screening had recently been added to the Nova Scotia Prenatal Record produced by the Reproductive Care Program of Nova Scotia. In addition to the EPDS, one participant mentioned screening using the Generalized Anxiety Disorder Scale, while another used the Perinatal Anxiety Screening Scale (PASS) for screening during the perinatal period. All participants felt that screening using the EPDS was recommended, but not mandated. Participant 2 stated "I don't think there's anything necessarily mandated, but these would be, you know, the scales and the tools that have the most evidence base behind them and they're what's used most commonly…" Practices for PMHD screening by RN LCs varied significantly throughout the province based on individual practices and practice settings. Some participants mentioned that they completed the EPDS with all women in the perinatal period, however, they also noted that this was not being done consistently by all RN LCs in their practice settings. RN LCs working in

community-based settings identified more opportunities to screen for PMHDs. Sharing their experiences with PMHD screening, Participant 6 who has a role in a community-based practice stated:

> …I screen all families that I come in contact with and discuss, openly discuss mental health, maternal mental health, or perinatal mental health, incorporating their partners because there's evidence to say that you know it can affect dads and support people just as much…..the Edinburg is recommended and then I also use PASS [Perinatal Anxiety Screening Scale], and I've been trying to promote that a little bit.

It was acknowledged that screening should be happening for all mothers during the perinatal period, however, this did not always occur in practice. Seeing high volumes of patients and the resulting lack of time was identified as a barrier to screening and providing appropriate follow-up care for PMHDs. Participant 3 speaks to this:

> I was really trying to do the Edinburg in the clinic following, you know, the recommendation through RCP [Reproductive Care Program of Nova Scotia] and I had a mom score, you know, like a 16 or 17…frequent thoughts of self-harm. I had to call the mental health crisis [team]…and then you've got the clinic room tied up and you've got a waiting room full of people. So you really haven't got the time to do it as it should be.

In more urban practice settings, RN LCs reported providing less hands-on mental health screening as they worked collaboratively with members of the interdisciplinary healthcare team such as social workers. Acknowledging this, Participant 10 confirmed, "I know it's within our scope as IBCLCs to screen. I think working in a[n] [urban healthcare center], we refer on a lot of time, so social work would do those pieces." Other participants stated that while they did not use formal screening tools

such as the EPDS, they performed generalized screening for mental well-being, Participant 1 stated, "I don't think there's really any, you know, set forms of anything that we do, but I mean mostly it's just asking how people are doing and I think people are very forthcoming…". Participant 2 added, "…I always ask how's your mood? How would you describe your mood? How are you feeling?" Others mentioned that they "…have discussions about mental health and postpartum anxiety, depression, about baby blues, but we're not using like a screening tool…" (Participant 9).

All participants felt that there was a benefit to screening for PMHDs at appointments with RN LCs. This practice was identified as a proactive approach that could further support maternal health. Participant 8 stated, "…well, for one, I think it's a proactive approach and I think it's trying to get ahead of it before it gets worse because typically later in your pregnancy [and] postpartum it can creep up." Another participant felt that it was an imperative aspect of providing breastfeeding support:

> It's the only thorough way to do a lactation assessment because like I said, like they go so closely together and it could be the root of, the breastfeeding issue could actually be maternal mental health. So it would be a disservice to not be doing both…

Collaboration and referrals. Participants also spoke of collaborative practice and referrals to other healthcare providers as a means of providing care for maternal mental health. Participant 8 spoke about referring to mental health services "We do refer to mental health internally many times. There's a bit of a waitlist for that…", while Participant 6 added "…we do have very good collaborative approaches to care. So like as far as nurse practitioners, family practice nurses and physicians in the community, they're very receptive…and very, very supportive."

Participant 4 spoke of the benefits of multiple practitioners addressing maternal mental health:

> I think anytime somebody is having a discussion with a patient or a mom about mental health, or family, I think it's a good thing. So I think whether it's an LC or whether it's a physician, or whether it's the midwife, if it's on people's radar and they're caring and asking about it, it's good.

Reception of support. Most participants felt that mothers and families were appreciative of the mental health services and support being offered by RN LCs and that initiating these conversations was well received. It was indicated that this provided mothers with an opportunity to feel heard and cared for while a trusted healthcare provider supported and normalized conversations regarding maternal mental health. As Participant 5 stated, it helps mothers understand that "This is normal. This happens, and there's a lot of other mothers in this, feeling the same feelings I'm feeling…" Participant 2 added "…I would say that families feel at the very least validated. You know, families are feeling that again, they're not alone…I feel confident in saying that, you know, families receive the support very well." It was also mentioned that the reception of mental health support could vary among individuals: "I think it just completely depends on the person. Sometimes they're willing to kind of dig, delve into it and talk about, you know, their issues and sometimes they're just, get me out of here (Participant 9). Summarizing the importance of patient perception of care, Participant 10 eloquently states "when you look at maternal or parental mental health, it matters how you feel about the care you received."

Facilitators. Two predominant facilitators to RN LCs providing maternal mental health support emerged during this study: rapport building with mothers and the length of time allotted for LC appointments. Many RN LCs felt that seeing mother's multiple times throughout the perinatal period helped establish a strong rapport and facilitated discussions surrounding maternal mental

health. This held true when interactions occurred at multiple points throughout the perinatal period, or at multiple times in the postpartum period. Participant 9 states:

> …being an LC I tend to work really closely and for longer periods of time with families as opposed to maybe like a staff RN on the floor…when you're an LC and seeing them repeatedly over long periods of time, you're really kind of involved in their journey a little bit more.

Summing up these facilitators, Participant 4 stated:

> I think we've done a lot of training in our clinic on motivational interviewing skills. So I think that really helps. I find it does. I find that kind of a useful tool, so it's sometimes *how* you ask the questions…I guess the other thing would be time. We have like 45 minutes to an hour, when you're going to the doctor sometimes it's in and out. So timing is another thing that matters. We have the time.

Barriers. Barriers impacting the ability of RN LCs to provide support for maternal mental health identified by participants included a lack of time, caring for off-service patients, and gaps in patient and provider education. A lack of time was a barrier in many practice areas seeing high volumes of patients per day. As Participant 6 shares:

> …so if the clinics really busy and there's like a busy day with lots of turnover…it can be challenging to meet that criteria [for patient screening] just because of the speed of the clinic. On a slower day, it's quite easy. So it's sort of, not equitable…

A lack of time also provided a barrier to providing breastfeeding support, which many participants felt could directly impact maternal mental health. As Participant 3 states:

> …if you have three nurses and you have a patient load and you're going into a room and sometimes teaching mom latching and breastfeeding, that can take an hour or more in

that room with that mother. And there's no time for that.

Caring for off-service patients was identified as a barrier to providing both adequate breastfeeding support and supporting maternal mental health. This was related to the barrier of a lack of time, as participants felt that it took away from time usually spent supporting mothers. As Participant 1 stated:

> …a lot of times we get patients that are off-service who are complex. So sometimes probably our lactating moms don't get maybe the attention they need because you're busy with the others, because you're a set number of nurses, and if somebody's quite sick, who's medically, you know, not one of our technical service patients, then it takes a lot of time and you don't get into those rooms…you're going in and doing your checks, but if you know, they're not feeding at that time and you don't see that the baby's not latching well or if they don't voice any concerns because you rush in because you're busy and just say is everything ok, and you're rushing back out.

RN LCs felt that mothers and their families required additional education regarding what services are available to support both breastfeeding and maternal mental health. When asked if they felt patients had adequate information regarding available resources, Participant 2 stated:

> No, they don't. They have no idea. So, I think again, like advertising and making it a part of normal conversation and practices where families get their care. So prenatal appointments, primary healthcare providers, being able to make families more aware of where they can get support and what's available would be huge. Like that would make such a big difference, and I feel like people would access it more knowing exactly where to go and not having to, you know, sift through Internet searches or continuously asking, or maybe not even having the ability to [say], you know, I didn't even realize that was

> something I could get from the [Nova Scotia] health authority. You know, I had no idea any of this existed, and if you don't know, you don't know to ask…

Provider education was also acknowledged as a barrier to providing maternal mental health care. Some RN LCs acknowledged that additional education earlier in their careers would have increased their level of comfort in addressing maternal mental health concerns. As Participant 5 states, "Some of that talk that I think for me personally was missing early on in my career and difficult to talk about because I didn't have the training or the knowledge..." Some participants also felt they did not have enough training to adequately acknowledge and respond to maternal mental health concerns at present and were uncomfortable when the need arose. Acknowledging that comfort screening for and addressing maternal mental health could vary among practitioners, Participant 2 adds:

> I think depending on the comfort level of that nurse. So many of us come from a perinatal background, so we know how important mental health screening is and support is. Some nurses may be, are either brand new out of school, some nurses come from different, you know, working in education backgrounds. So no, I don't think that everyone would feel comfortable administering that, knowing what that means, the follow-up.

While the need for additional education was identified as a barrier for some participants, others felt they already had the necessary tools to support maternal mental health as RN LCs. As Participant 6 states:

> It's like you don't necessarily need to have additional supports and education. You can advocate for clients, you can listen actively. You can screen. You can refer and you can identify crisis, like we all have that ability. I think because there's so much misunderstanding and stigma around mental health [that people feel like they aren't

prepared to provide that care].

Participants also noted that there were many barriers to gaining an IBCLC designation. Varying levels of support to receive this designation were described. Some participants reported no support in terms of funding or time off for education, studying and exams, while others were fully funded to acquire and maintain their IBCLC designation. Those who received funding and support to gain their IBCLC designation stated that managerial support was a huge facilitator in this process, with some participants mentioning that the time and financial barriers associated with achieving an IBCLC designation can be a deterrent to acquiring and maintaining the designation without employer support.

Access to Services

Participants in this study felt there was inequitable access to both RN LCs and maternal mental health services across Nova Scotia. Perceptions regarding equity in access to these services varied based on the model of service provision, for example, in community, in hospital and in primary care. As Participant 6 states, "…access to LC's in the unit is not equitable. Some hospitals are doing so much better than others." Barriers identified by participants were related to how the social determinants of health and the delivery of healthcare services impacted access to healthcare services. These included limited access to more rural communities, financial barriers, and support for childcare. As Participant 8 shares:

> I work here and only here. We are not funded to hit the road to go to, we serve communities, people deliver here from two, two and a half hours away. So, if they want to see an LC, they need to travel here, and a two-hour drive here and two-hour drive back is expensive, time-consuming, childcare, gas, food, everything. So no, I don't think it's equitable. Anyone can call and anyone can come in, but they have to come to me.

Comparing in-patient and out-patient services, Participant 7 states:

> It's hard enough to get a reproductive mental health consult when you're [an] inpatient in crisis. So I can't even imagine not being in hospital, being in community somewhere, and you're having a crisis. I can't even imagine. I don't think access is very easily obtained for mental health or for lactation outside the hospital. Basically, there's public health and then private LCs.

Participant 10, who worked in an area with limited access to publicly funded lactation support after discharge added to this by stating "it's not equitable if you have to have a certain dollar figure to be able to access that support."

Some participants shared that they had local supports to help assist with the identified barriers. For example, Participant 9 states, "I don't think that everybody utilizes it, we are very good if people need like, you know, taxi slips or support getting to appointments…getting access to the more at-risk populations is always a struggle…" Participant 2 added to this:

> …if a family would really benefit from one-to-one counselling, but there's a financial barrier, we have a specialized fund available to be able to support that until we get them to a space where they are, you know, deemed stable that then could be referred to like publicly funded mental health supports as well.

Other participants felt that their local services were equitable in the sense that they were universally offered, but that barriers to accessing services did affect this. For example, Participant 3 stated:

> …I think it's equitable. I mean, we see everybody…we're not fee for service or anything. So it's not like, oh, if you can pay us $150 for the appointment. No, we see everybody, we see everybody who has a need. But I think just probably the ability to get to us might

be a bit of an issue…

Impact on maternal mental health. All participants acknowledged that barriers to accessing support could negatively impact maternal mental health. Wait times for care were cited as one of the most prominent barriers. As Participant 3 states:

> …wait lists are long and the need is so great…you've got a window and the thing is… a mother's healthy mental state very much affects the development of her unborn child as well as once the child is born and the interaction that she's having with that baby is going to have lifelong consequences on their development and mental state. So it'd be really nice if we could just refer and bam, we had, you know, timely intake, but that's not so.

Participant 5 looked at barriers to access from the perspective of mothers: "Imagine how discouraging it is for them when they can't get what they need", while Participant 10 advocates for a reduction in barriers, "They need to have access to the care that's appropriate for them, at the right time. When they need it. Not having to wait for it. I think that's really important."

Technology. The influence of technology on access to RN LC and maternal mental health services was also discussed throughout the study. Participants mentioned that many innovations in technology were incorporated into practice to overcome barriers associated with the COVID-19 pandemic. Participants felt that technology improved access and many were referring patients to online mental health resources. As Participant 8 shared, "…the online thing it's ideal because they can do it from home. It improves their access as well as they don't have to worry about childcare…it really is client-centered and I think that's why that's gonna work well." Over the pandemic some RN LCs also used technology to provide breastfeeding support. Participant 2 noted that technology does not remove all barriers, "So, the online option has been great, but again, you

know not all families have, you know, the ability to either pay for Internet or have minutes on their phone…" While others such as Participant 9 indicated that technology isn't always the best option:

> …in some ways it's more accessible for more people, but in other ways it's just not the same experience…I think that there's a lot that comes from meeting these families and these people in person and starting to develop that relationship and that connection.

Mothers Need Support

The need for support was a predominant theme throughout this study. Participants recognized that a mother's mental health was influenced by several factors and that the interplay of social and environmental factors contributed to health inequities. They also discussed the pressure to breastfeed and how this could impact mothers. RN LCs in this study identified individual relationships, as well as community and societal factors that are needed to support the mental health of women who wish to breastfeed. They also discussed how their personal experiences with breastfeeding and PMHDs motivated them to support mothers throughout the perinatal period.

As RN LCs across Nova Scotia shared their experiences related to maternal mental health, it became clear that they felt support was paramount to the health and well-being of mothers who wished to breastfeed. It was noted that "…breastfeeding can be a promoter of overall mental well-being, but with that, with lack of support comes additional stress (Participant 2). Participants acknowledged that challenges with breastfeeding can negatively impact maternal mental health, but they also felt that LC support could assist with both infant feeding and maternal mental health concerns. As Participant 5 states:

> Breastfeeding's not going well and it's affecting mother's mental health. That's right… I couldn't agree more. How do we get it going well so that it affects mother's mental health the way it should affect mother's mental health, which is a positive role in

mother's mental health.

Pressure to breastfeed. Many participants spoke of the benefits of breastfeeding, while also acknowledging that there is pressure on mothers to breastfeed, which can at times, negatively impact maternal mental health. As Participant 6 states:

> …although the work that is being done by the BFI [Baby Friendly Initiative] and breastfeeding initiative is very, very important and I understand it in terms of like health equity, health promotion and protection and food security and all of the good things, there is a significant amount of pressure that goes on families…there's a huge amount of pressure around infant feeding and I think it comes from like, everywhere, social media, but it also comes from the medical field. So it's sort of this dance that we have to be aware of because unless we address it, we're putting a lot of pressure…and like, if you understand the science of breastfeeding and you know that cortisol which is a stress hormone, parks in all the parking spots of the lactation cascade, which lets your milk down and helps you breastfeed… and you know, if a mom is stressed out and worried about how well she's breastfeeding, that right there is enough to cause breastfeeding challenges, which will exacerbate the mental health piece.

It was also acknowledged that women who wish to breastfeed can put a lot of pressure on themselves. As Participant 7 states, "If a mom really wants to breastfeed and it's not working out for her, I can really tell that it's going to be a struggle with her, with her mental health. When breastfeeding is not going well, women often "…feel like they failed as a mother. Any they're very hard on themselves" (Participant 8). The pressure to breastfeed without adequate resources in place to support women in reaching this goal was also identified as having a negative impact on maternal mental health. According to Participant 6:

> … the healthcare system is putting all this pressure on a family to breastfeed and breastfeeding is the best choice, choose breastfeeding, and then we don't have the resources to help them succeed…but if we don't have the resources to support them and we just tell them like you should do this, and if you don't, it's a shame, then we're setting them up for major maternal mental health issues, right? Because they feel like failures, I see it time and time and time again.

Stigma. Many participants indicated that the stigma surrounding mental health influenced the support mothers received. Participant 6 stated that in practice "there's like words that are used and behaviors towards clients that yeah are just not acceptable. And I think there is a fear of addressing it, because there's a sort of unknown around mental health." Others felt that we need to be having more conversations around maternal mental health to break down the stigma and to avoid patient blaming. As Participant 7 states, "I think that it should be talked about a little bit more…let's ask mom how she's coping with being a new mom." Bringing more attention to maternal mental health specifically was also seen as a way to normalize seeking help for PMHDs. As Participant 8 states:

> …maybe focus more on maternal mental health, because I think it's a real subsection that doesn't get a lot of attention unless you hear a celebrity, or you know, some crazy crime story about a mother…but I think there needs to be more. Not that it's normal, but normalization that it's okay if you're suffering….so I think changing the culture around it.

Universal screening for PMHDs was offered as a strategy to help normalize conversations and help-seeking behaviors. Participants felt that RN LCs screening all women at LC appointments, as opposed to patients identified or self-identifying as high-risk, would be one way

to help normalize discussions surrounding PMHDs, and ultimately result in fewer women suffering in silence.

Personal relationships & community support. The personal support systems that mother's had in place were described as having a significant impact on their mental health and ability to meet their infant feeding goals. Supportive partners and family members were identified as indispensable to mothers. Participants also mentioned how recent changes in paternity leave provided an opportunity for some mothers to have enhanced social support. Conversely, Participant 1 discussed the negative impact of a lack of support from relationships close to the mother:

> …there's still a few moms out there that have outside influences, either from a spouse or from a parent who didn't nurse or doesn't think that babies should nurse. And I think when mom's really want to nurse, and everybody's almost against them saying give that baby a bottle they're starving and all that kind of stuff, I think that certainly affects their mental health.

Community resources were identified as having a positive impact on the mental health of mothers who were able to access these supports. Participants spoke of a number of resources such as Kids' First, La Leche League, and informal peer supports. It was noted that these supports varied inequitably across the province. As Participant 8 stated:

> I think that some of the resources within our community do a great job of supporting women. Not everyone has access to them that live in rural Nova Scotia, but places like that family resource centers…I think they do a fantastic job of bringing people together to support each other…

Personal experiences. Many participants spoke of how their personal experiences with breastfeeding and maternal mental health provided them with the lived experiences to provide more

comprehensive support to mothers in the perinatal period. As Participant 9 shares, "…being in that postpartum haze and experiencing some lactation troubles, and even with like all of the education and all of my experience, I really felt like it was humbling to feel what these patients are feeling a little bit." Participant 8 also shares their personal experience with a PMHD:

> …[my infant] was probably 3-4 months old before it even hit me and I worked in obstetrics and didn't even know what was going on. So I talked about it a lot after that and the more I talked about it, the more people came and said, me too, me too, me too. And I'm like, how come no one told me about this, you know? So I've always been very open about it because I think people struggle silently…So I'm a huge advocate for maternal mental health in the sense that these women need support, and I don't want them to suffer in silence.

Future resources. RN LCs in this study identified several resources that could be used to increase support for maternal mental health moving forward. Increasing accessibility to patients using mobile clinics was frequently mentioned. RN LCs acknowledge that accessibility could be increased by getting creative with resources that are currently in place. When asked about their wish list for resources Participant 6 stated:

> I want a postpartum clinic, that and a bus as well, you can go to all the rural settings…we could send a perinatal mental health nurse and an LC, you know, once a month to a clinic…I think it's time that this system starts to work for the clients as opposed to the clients having to work for the system.

Other participants mentioned the need for increased access to publicly funded LC services offered through MSI. For example, Participant 9 stated "I would love to see that access to free lactation

support for as long as people need it to be more commonplace….whether babies a week old or a year old, that would be fantastic."

Peer support groups were also frequently mentioned as an important resource for mothers. RN LCs in this study mentioned that peer support would support maternal mental health through the sharing of experiences and helping mothers to feel less alone in their struggles. As Participant 10 shared:

> …you're doing a great service to be able to promote engagement around peer-to-peer support. I think that would do a whole lot for mental health and supporting mental health, knowing that somebody else has had this experience, and it's not just you.

Participants also felt it would be beneficial if peer support groups could be overseen by someone with specific mental health training, such as a psychologist. The benefit of virtual peer-support groups to increase accessibility was also discussed. Participants felt this could be achieved through additional online resources, texting, and maternal mental health-specific hotlines.

Participants felt that it was important that specific resources were created to support maternal mental health. As Participant 3 shares, we need to make "…maternal health something separate and on its own. So…they're not just lumped in with every other mental health referral from every family physician for every person." RN LCs also noted that mothers could benefit from increased access to mental health specialists in all facilities, including perinatal mental health nurses, as well as an increased number of LCs throughout Nova Scotia.

Chapter Summary

The data collected following interviews with ten RN LCs in Nova Scotia have now been presented. Detailed descriptions provided by participants were described according to five main themes: (1) Availability of Breastfeeding Support, (2) Experiences Supporting Maternal Mental Health, (3)

Providing Maternal Mental Health Care, (4) Access to Services, and (5) Mothers Need Support. Participant responses have provided extensive information regarding the experiences of RN LCs in Nova Scotia related to maternal mental health. These findings indicate that there are inequities in resource allocation and service delivery across Nova Scotia for both maternal mental health and breastfeeding.

Chapter 5. Discussion

This chapter will discuss the findings of the present study within the broader literature, focusing on the experiences of RN LCs related to supporting maternal mental health within the context of appointments focused on providing breastfeeding support. Information on the prevalence of PMHDs, screening for and addressing PMHDs, and access to healthcare services for both breastfeeding support and maternal mental health will also be presented. This will be followed by a discussion on implications for practice, strengths and limitations of the study, as well as recommendations for future research. Although this study focused on Nova Scotia, many of the findings were reflective of recent Canadian research addressing healthcare provider perspectives related to perinatal mental health care and services (DeRoche et al., 2023; Hicks et al., 2023). It was clear from the accounts of RN LCs in this study that there are inequities in access to healthcare resources and service delivery for breastfeeding and maternal mental health support across Nova Scotia.

Experiences Supporting Maternal Mental Health

All RN LCs in this study discussed experiences supporting maternal mental health and acknowledged that there is a significant emotional component associated with breastfeeding and providing lactation support. More specifically, RN LCs stated that mothers facing difficulty breastfeeding were often surprised by the challenges of breastfeeding and disappointed when their infant feeding goals were not being achieved. The perceived pressure to breastfeed and the resulting stress of trying to meet breastfeeding expectations were also mentioned. Participants identified several ways in which they supported maternal mental health, including informal conversations and screening, the use of formal screening tools, providing information on community resources, and engaging in collaborative practice to make referrals to other healthcare

professionals such as social workers and mental health specialists. It is encouraging to note that all RN LCs identified positive experiences supporting maternal mental health. Participants felt that providing support positively impacted mothers as well as their own professional practice and that the support offered was well received by mothers. RN LCs in this study who discussed negative experiences supporting maternal mental health related this to the frustration that resulted from not being able to provide mothers with appropriate and timely access to mental health support.

Maternal mental health support provided by RN LCs in the current study is reflective of the types of support offered by healthcare providers during the perinatal period across Canada. In a cross-sectional survey of 435 Canadian healthcare providers including midwives, nurses, social workers, interdisciplinary mental health specialists (psychologists, psychiatrists, counsellors), medical doctors from non-mental health specialties (obstetricians, gynecologists, family physicians, pediatricians), naturopathic doctors and allied non-mental health professionals (doulas, physiotherapists, chiropractors), participants reported they engaged in formal and informal screening for PMHDs during the perinatal period (Hicks et al., 2022). Of those participants, 47% engaged in informal screening, which included general questions regarding a patient's well-being, clinical impressions, and asking questions if the patient presented with a clear concern. Several participants also used a range of validated screening tools, with the EPDS being the most used tool (88%) (Hicks et al., 2022). No data was reported regarding the frequency of screening.

Participants in the current study used both formal and informal screening for PMHDs and felt this support was well received by mothers. Similarly, a multi-site cross-sectional survey of 460 pregnant women in Alberta, Canada, Kingston et al. (2015) found that mothers felt the screening process for PMHDs was supportive and positive. Referrals to mental health specific supports were also commonly used by Canadian healthcare professionals. In Hicks et al. (2022), over 60% of

participants referred patients to both private and publicly funded mental health supports, while 35% referred only to publicly funded services (Hicks et al., 2022). Like participants in our study, 80% of participants in Hicks et al. (2022) reported long wait times as the most common barrier to providing care for PMHDs; 67% of providers identified wait times between one and six months to access care when referrals were made. Similarly, in a cross-sectional online survey of 405 Canadian healthcare providers, 61% of providers reported wait times between one and twelve months for perinatal mental health services (Tarasoff et al., 2021).

Prevalence of Perinatal Mental Health Disorders

PMHDs are a growing public health concern that can negatively impact the health and well-being of mothers, children, and families (Lengua et al., 2022; RNAO, 2018; Rogers et al., 2020; WHO, 2022b). In Canada, 23% of mothers experience symptoms of postpartum depression or postpartum anxiety, however, in Nova Scotia, the number of women affected surpasses the national average at 31% (Statistics Canada, 2019). RN LCs in this study acknowledged that PMHDs were prevalent in practice, with many indicating that seeing a woman without a history of mental health concerns was a rarity. Participants identified that depression and anxiety were the most common PMHDs presenting in practice, however, anxiety was identified as the most prevalent.

During the height of the COVID-19 pandemic, self-reported symptoms of postpartum depression increased to 40.7%, and symptoms of postpartum anxiety were reported by 72% of Canadian mothers (Davenport et al., 2020). There was also an increase in the number of mothers diagnosed with anxiety, depression, and substance use disorders during the early months of the pandemic (Vigod et al., 2021). RN LCs in this study noted an increase in PMHDs associated with the COVID-19 pandemic and felt this increase was correlated with pandemic-related restrictions that resulted in lower levels of social support, increased stress, and limitations on the availability of

healthcare services. It was also noted that PMHDs were more common among women with barriers to accessing available healthcare resources, those with perfectionistic personality traits and women with a history of anxiety or depression. This aligns with current research which outlines several risk factors for the development of PMHDs including a history of depression and anxiety, stressful life events, low levels of social support and challenges with breastfeeding (Ghaedrahmati et al., 2017; Islam et al., 2021; RNAO, 2018; van der Zee-van den Berg et al., 2021).

There is an established relationship between difficulty breastfeeding and an increased risk of developing PMHDs (Islam et al., 2021; RNAO 2018; Shen et al., 2023). More specifically, women who intend to breastfeed and face barriers to reaching their infant feeding goals are at an increased risk of experiencing PMHDs (Borra et al., 2015). Breastfeeding is promoted as the optimal form of infant nutrition (WHO, 2021). However, breastfeeding parents report feeling unprepared for the many challenges of breastfeeding, remarking that promotion of 'breast is best' coupled with limited support and resources creates barriers to breastfeeding in the postpartum period (Francis et al., 2020). Participants in the current study discussed the pressure women feel to breastfeed, noting that this perceived pressure comes from various sources including the mother's support network, social media, the healthcare system, and mothers themselves.

Maternal guilt and shame associated with breastfeeding promotion and the perceived pressure to breastfeed have been widely discussed in the literature (Benoit et al., 2015; Jackson et al., 2022). Furthermore, in an online survey of 876 mothers, Jackson et al. (2023) found that maternal guilt and shame and the pressure to breastfeed were positively associated with increased rates of post-natal anxiety and depression. Participants in the current study felt that feelings of guilt associated with not breastfeeding exclusively as planned contributed to maternal mental health challenges. The social pressure to breastfeed without adequate healthcare resources or access to

breastfeeding support is associated with early breastfeeding cessation and an increase in PMHDs (Jackson et al., 2023). Within this study alone, there were numerous examples from participants on the prevalence of PMHDs for their clients as well as the need for additional comprehensive services to support breastfeeding and maternal mental health.

Addressing Perinatal Mental Health Disorders

Despite the increased prevalence of PMHDs noted by participants in this study, all RN LCs stated that screening for PMHDs was recommended in their workplaces but not mandated. Participants identified the Edinburg Postnatal Depression Scale as the most frequently used tool to screen for depression, however, two participants mentioned also using either the Generalized Anxiety Disorder Scale or the Perinatal Anxiety Screening Scale to screen specifically for anxiety. Similarly, Hicks et al. (2022) reported that 13% of participants had mandatory screening for PMHDs in their places of employment and that the EPDS was the most frequently used screening tool (88%), followed by informal screening (47%). There were inconsistencies related to screening for PMHDs across Nova Scotia based on individual practices and practice settings. Specifically, RN LCs in more urban areas of the province reported providing less hands-on screening for PMHDs, as they had strong collaborative relationships with members of the interdisciplinary healthcare team, such as social workers. It was indicated that in rural Nova Scotia, these collaborative supports were less readily available. In these areas, RN LCs were attempting to take on the role of screening and connecting mothers with appropriate resources. Although PMHD screening practices among Canadian healthcare practitioners have been previously reported by Hicks et al. (2022), 94% of their participants were employed in urban centers. This study adds to the literature by differentiating between practices in rural and urban centers among RN LCs.

Although many participants stated that they attempted to screen all women for PMHDs, they acknowledged that this was not being done consistently within their practice settings. A lack of time was the most frequently cited barrier to screening for PMHDs throughout the perinatal period. Participants also spoke about the challenges that ensued in practice when a woman was screened and met the criteria for additional support. Uncertainty regarding how to connect women with appropriate support and the extensive wait times when the need for support was identified were also cited as barriers by RN LCs in this study. In Canada, there are major disparities in access to maternal mental health services, which include long wait times (CPMHC, 2021; DeRoche et al., 2022; Hicks et al.,2022; Tarasoff et al., 2021). Resources such as the Care Pathway for the Management of Perinatal Mental Health and Addictions in Nova Scotia provide guidance on appropriate interventions based on the severity of perinatal mental health concerns (RCP, 2023). However, these guidelines are only effective if there are timely and appropriate resources and healthcare services available to support the recommended pathway for patient care. Results from this study indicate that additional resources are needed in Nova Scotia to support these clinical guidelines.

The variation in screening practices across Nova Scotia highlights the importance of developing policies that guide the screening of PMHDs, while also providing the resources needed to ensure equitable screening practices. Participants in this study indicated that screening using the EPDS is recommended in each trimester of pregnancy and as needed in the postpartum period. Guidelines for Antenatal Screening and Testing in Nova Scotia state that the EPDS should be used each trimester to screen for anxiety and depression (RCP, 2022). Multiple appointments over the perinatal period and the length of time allotted for appointments related to breastfeeding support were identified as facilitators to screening for PMHDs by RN LCs. Difficulty breastfeeding is a

risk factor for the development of PMHDs (Islam et al., 2021; RNAO 2018; Shen et al., 2023); therefore, it is recommended that RN LCs actively screen for PMHDs using a validated tool, such as the EPDS while providing breastfeeding support. However, RN LCs are only part of the solution; enhanced screening practices for PMHDs requires that all healthcare providers working with families in the perinatal period provide this service (MacDonald et al., 2022; WHO, 2022b). Comprehensive primary care requires a broad health assessment which includes mental health assessments (RCP, 2022; WHO, 2022b). It is imperative that members of the interdisciplinary care team (i.e.: nurses, family physicians, nurse practitioners, LCs) collaborate effectively during the perinatal period to ensure that comprehensive assessment and follow-up for PMHDs is occurring equitably throughout the province.

Participants identified universal screening as a way to normalize discussions surrounding maternal mental health with healthcare providers. Fear and stigma, difficulty self-recognizing changes in mental health, an unwillingness to ask for help, and obstacles to accessing healthcare services have been identified as barriers to seeking help for mental health concerns in the literature (Ford et al., 2019). Participants in the current study felt that universal screening for PMHDs by RN LCs and other healthcare providers, as opposed to only screening patients identified as at high-risk would be one way to help normalize discussions surrounding PMHDs, and ultimately result in fewer women suffering in silence. Recent studies have reported successful screening for PMHDs in primary healthcare at well-child visits (Segre et al., 2023; Sim et al., 2023). Coordinating PMHD screening with well-child visits can enhance access to screening for mothers who are not accessing LC services, and to promote continued screening throughout the entirety of the perinatal period. Based on the findings of this study and the aforementioned literature, it is recommended that

universal screening using a validated screening tool occur in each trimester of pregnancy, as well as at regular intervals in the postpartum period that coincide with well-baby appointments.

Individual variations in healthcare providers accessed throughout the perinatal period highlight the need for a shared responsibility for PMHD screening, however, this makes it difficult to ensure that screening is being completed in a timely manner due to barriers in information sharing across healthcare providers. The upcoming release of One Patient One Record (OPOR) in Nova Scotia, a new technology that will allow healthcare providers to share information more efficiently through a consolidated healthcare record (Province of Nova Scotia, 2023), should be leveraged to track PMHD screening among healthcare providers to ensure screening guidelines are being met throughout the perinatal period. In addition to enhanced communication through OPOR, there is a need for integrated care in perinatal mental health (WHO, 2022b). Protecting and promoting mental health in the perinatal period is an important aspect of high-quality maternal child health services. Healthcare providers working within the perinatal period, including LCs, are uniquely positioned to provide support for maternal mental health (WHO, 2022b).

In the current study, approximately half of the participants felt that they had the education required to provide appropriate care for maternal mental health concerns. Two participants mentioned having specific training regarding perinatal mental health, while others mentioned that their scope of practice as Registered Nurses provided them with the knowledge and skills to provide appropriate care when dealing with PMHDs. Interestingly, multiple participants felt they did not have the appropriate training or education required to effectively address mental health concerns as newly practicing Registered Nurses. This aligns with a recent study which indicated that 43% of Canadian healthcare providers had formalized training in PMHDs (Hicks et al., 2022). Interdisciplinary mental health professionals (psychiatrists, psychologists, psychotherapists,

counsellors) reported the highest rates of PMHD training (79%), followed by social work (65%). Nurses, midwives, and medical doctors from non-mental health specialties had significantly less mental health training compared to interdisciplinary mental health professionals and social workers (t = 3.78-8.71, all $p < 0.001$). This highlights the need for targeted PMHD training within certain disciplines so that all healthcare providers caring for mothers in the perinatal period have the skills to provide timely and appropriate care.

Currently, there are no formalized training programs required for PMHD specialists in Canada (Hicks et al., 2022). In Australia, the Centre of Perinatal Excellence (COPE) offers access to a free perinatal mental health training course linked to their 2023 National Perinatal Mental Health Guidelines (Centre of Perinatal Excellence (COPE), 2023). This course provides an overview of mental health disorders in the perinatal period, education on how to assess and screen for PMHDs, as well as information on referral pathways and the treatment and management of PMHDs (COPE, 2023). Although Canada currently lacks a national strategy to address PMHDs (CPMHC, 2021), similar modules could be created for use in Nova Scotia to support the Care Pathway for the Management of Perinatal Mental Health and Addictions (RCP, 2023). The need for standardized perinatal care is becoming increasingly important and gaps in care are becoming more evident; 93.5% of healthcare providers feel that perinatal mental health care services in Canada are only partially meeting existing needs (Hicks et al., 2022).

Adequately preparing healthcare providers with the knowledge and skills to address PMHDs is important moving forward considering recent increases in the prevalence of PMHDs in Canada. Learning modules that provide standardized perinatal mental health training, such as those offered by the COPE (2023) provide healthcare providers with the most up-to-date evidence-based guidelines for the care and treatment of PMHDs. As only two participants in this study referred to

care pathways related to providing care for maternal mental health, it is recommended that training for healthcare providers include information on care pathways as well as local services that are available and the processes for connecting mothers with these supports when necessary.

Access to Healthcare Services

RN LCs in this study felt there was inequitable access to both breastfeeding support and maternal mental health services across Nova Scotia. Furthermore, participants acknowledged that the negative impacts of the social determinants of health created additional barriers to accessing healthcare services. Barriers identified by participants included limited access to healthcare services related to rurality, financial barriers including difficulty accessing transportation, the incurred costs during travel to appointments (gas, food, time off work), and lack of support for childcare. Several barriers related to the COVID-19 pandemic and for persons from diverse backgrounds were identified by perinatal healthcare providers in a study conducted by DeRoche et al. (2023). Barriers to receiving care for PMHDs in their study included racism and ethnocentrism experienced by marginalized populations, a lack of knowledge on the part of healthcare providers regarding PMHDs, and structural barriers such as areas with limited access to resources, the cost of accessing services and a lack of options for childcare (DeRoche et al., 2023). In addition to a lack of access to healthcare services, participants in the current study also discussed the need for more comprehensive healthcare services to support the mental health of women who wish to breastfeed.

Access to equitably distributed, timely, and appropriate healthcare services to support breastfeeding and perinatal mental health is a human right (WHO, 2022a). However, as participants in this study indicated, there is inequitable access to these services across Nova Scotia. Services provided by LCs can support overall health by increasing exclusive breastfeeding rates while also working to prevent PMHDs related to difficulty breastfeeding or the early cessation of exclusive

breastfeeding (Chrzan-Detkos et al., 2021; Keim et al., 2021). Accessible LC support that addresses PMHDs can be part of the collaborative care model required to successfully support the mental health of women who wish to breastfeed. When providing care throughout the perinatal period, it is essential to include LCs and doulas into integrated healthcare services (DeRoche et al., 2023).

RN LCs in this study identified several needed resources to minimize inequities in access to breastfeeding support and maternal mental health services. Many participants spoke of the additional barriers present in rural areas of the province, which presented challenges to providing breastfeeding support, as well as screening and treatment for PMHDs. Participants in our study suggested the use of technology, when appropriate, to reduce barriers associated with transportation. They also suggested the use of mobile clinics where perinatal mental health specialist and LCs could visit remote communities to improve access to these services. RN LCs in this study indicated that more comprehensive publicly funded breastfeeding supports were required. Based on this, it is recommended that the provincial government funds breastfeeding support services for at least the first six months postpartum. Similarly, participants in DeRoche et al. (2023) suggested facilitating programs within rural communities and expanding publicly funded services to support PMHDs as a way to improve access to perinatal mental health services.

Implications for Practice

The findings from this study have several important implications for healthcare practice and policy. There are gaps in the provision of perinatal mental health care across Canada which highlight the need for more accessible and comprehensive services and resources to support women during the perinatal period (CPMHC, 2021; DeRoche et al., 2023; Hicks et al., 2023). RN LCs in this study indicated that they encountered PMHDs frequently in practice, with many stating that

they felt it was appropriate within their roles to screen for PMHDs. As a member of the collaborative team of practitioners during the perinatal period, it is promising to see a willingness to screen and provide support for PMHDs by RN LCs, however this needs to be common practice among all practitioners working with mothers in the perinatal period. Gaps in the provision of mental healthcare services in Nova Scotia highlight the need for collaborative and integrative approaches to care.

The Care Pathway for the Management of Perinatal Mental Health and Addictions in Nova Scotia provides a stepped approach to care that follows an ask, advise, assess, assist, and arrange framework (RCP, 2023). In each step it states to communicate with the primary care provider, however, more than 148,000 Nova Scotian's are without a primary care provider (Nova Scotia Health, 2023), which presents a barrier to following the recommended care pathway for some women. In these cases, there is a lack of clarity regarding who is responsible for providing follow-up care. The benefits of creating perinatal mental health specific services have recently been addressed in the literature (CPMHC, 2021; DeRoche et al., 2023; Hicks et al., 2022). Integrated services that specifically address maternal mental health in the perinatal period could remove patient and provider barriers to providing follow-up care for PMHDs. There are opportunities for collaboration and for a variety of perinatal healthcare providers, including LCs, to be providing mental health screening throughout the perinatal period. OPOR is a tool that could help to ensure that screening and follow-up care are being provided as needed across Nova Scotia.

The findings of this study highlight gaps in mental health services and screening in Nova Scotia and a lack of integrated care within the perinatal period. The WHO Guide for integration of perinatal mental health in maternal and child health services (2022b) discusses screening, coordination of care, the use of care pathways, and roles of providers within perinatal mental health

care pathways. Healthcare providers trained to identify and intervene when mental health concerns present during routine care in the perinatal period can help address gaps in perinatal mental health care (WHO, 2022b). Furthermore, it is noted that integrating care for perinatal mental health into maternal and child health services and discussing mental health at every contact within the healthcare system normalizes mental health and reduces stigma (WHO, 2022b). Unfortunately, LCs are completely missing from this guide, an oversight that will need to be addressed to provide comprehensive integrated perinatal mental health care in Canada. Interdisciplinary approaches to screening and support for breastfeeding and perinatal mental health is a critical component to collaborative care within the perinatal period (Webber & Benedict, 2019).

Reminiscent of findings by Hicks et al. (2022), participants in this study indicated that screening for PMHDs in practice was recommended, but not mandated. Guidelines that indicate mandatory screening for PMHDs, and resources to make this possible in practice may increase the percentage of women being screened and treated for PMHDs. A lack of mental health specialists results in many women missing out on opportunities for the diagnosis and treatment of PMHDS (WHO, 2022b). It is also important to evaluate the tools that are being suggested for PMHD screening. At present the EPDS is most used, however, given the recent increase in rates of anxiety throughout the perinatal period (Davenport et al., 2020; Field, 2018; Langille et al., 2023; Vigod et al., 2021), it is important to also consider the use of a screening tool more sensitive to identifying anxiety throughout the perinatal period. The Care Pathway for the Management of Perinatal Mental Health and Addictions recommends using the GAD-7 to screen for anxiety and the PASS to screen for perinatal specific anxiety (RCP, 2023).

Evidence from this study suggests there are gaps in the provision of perinatal mental health care across Nova Scotia, however, it is important to note that this is a systemic issue that spans the

Canadian healthcare system (CPMHC, 2021; DeRoche et al., 2023; Hicks et al., 2022). There is a need for nationally mandated perinatal mental health services in Canada to improve the care provided to women during the perinatal period. A national strategy to address PMHDs could help improve provider training, screening resources, and equitable access to timely and culturally safe healthcare services to support maternal mental health (Hicks et al., 2022). National strategies implemented in other countries such as Australia have included the training, tools, and guidelines to support healthcare practitioners in providing comprehensive perinatal mental health care (DeRoche et al., 2023). The development of these guidelines should include strategies to address inequities in access to healthcare services as well as the inequitable distribution of healthcare resources. Implementing the use of technology and mobile services to improve access in rural sites could help to improve access to healthcare services as a means of promoting the health of women, children, and families in the perinatal period and beyond.

Strengths & Limitations

The results of this study provide important information on the experiences of RN LCs in Nova Scotia related to maternal mental health. This is the first study to our knowledge investigating experiences related to maternal mental health from the perspective of RN LCs. A strength of this study is that it drew on the methodological strengths of qualitative description by providing preliminary information on a novel area of study using a low-inference approach that remains close to the words of participants. Another strength of the study is that it encompasses the perspectives of RN LCs working within the publicly funded healthcare system from across Nova Scotia in a variety of practice settings including community care, primary care, and acute care. Additional strengths of this study are related to strategies used to promote trustworthiness. I engaged in member checking to enhance credibility prior to data analysis, and I used an iterative

process during analysis to ensure that data obtained from participants was representative of study findings. I also used a reflexive research journal to acknowledge and minimize my influence on the research process.

Although this study brings forth new knowledge related to the experiences of RN LCs and highlights the context in Nova Scotia, there are also some limitations with the current research. Firstly, as this research was part of master's thesis, there were barriers in terms of time constraints and resources. As a result, the primary researcher was the only individual involved in the coding of research data. Although this is common in master's level research, the data was reviewed multiple times by the primary researcher and reviewed with the supervisory committee to address this limitation. Secondly, this research only captured the experiences of RN LCs working within the publicly funded healthcare system, therefore, the perspectives of private LCs and parents accessing LC services was not represented in this study. A final limitation to address is that the study participants consisted of a homogenous group of primarily White, educated healthcare providers which limits the perspectives presented within this study.

Recommendations for Future Research

This study provided information on the experiences of publicly funded RN LCs related to maternal mental health in Nova Scotia. Many of the study findings aligned with results from recent research that explored the perspectives of Canadian healthcare providers related to maternal mental health (DeRoche et al., 2023; Hicks et al., 2022). There is a need for future research to implement and evaluate interventions that promote equitable access to healthcare services to support breastfeeding and maternal mental health across Nova Scotia. For example, participants in this study identified the need for mobile LC and maternal mental health services to access underserved areas of the province, and the feasibility of these suggestions should be evaluated. It is important

for future research to address the perspectives of mothers to gain an understanding of their experiences surrounding mental health, breastfeeding, and LC support. There is also a need for future research to specifically investigate the unique experiences of equity-deserving populations such as Black, Indigenous, People of Color (BIPOC) and members of the 2SLGBTQIA+ community.

Opportunities for Dissemination

This research will be listed in an abstract posted online at the Athabasca University Library's Digital Thesis and Project Room and the final research paper will be publicly available. Participants will receive access to this link once available. Preliminary research findings were presented at the IWK Health Breastfeeding Grand Rounds and at the Athabasca University Graduate Student Research Conference in October 2023. Completed research was presented at the 2024 Athabasca University Research Forum in April 2024, and will presented at the Athabasca University 3 Minute Thesis Competion in April 2024. A poster will also be presented at the Canadian National Perinatal Research Meeting in June 2024. Research articles based on these findings will be submitted for publication in peer-reviewed articles and additional abstracts will be submitted to relevant conferences for oral and poster presentations.

Research findings will also be disseminated within the provincial healthcare system in Nova Scotia. Potential avenues of dissemination include presenting the final research results to the Minister of Health and Wellness, Michelle Thompson, and the Executive Teams at NSH and IWK Health. Additional means of dissemination are also possible and will be guided by research results and initial responses when attempting to disseminate research findings to key players within the community, healthcare system, and provincial government.

Chapter 6. Conclusion

Perinatal mental health disorders are a growing public health concern that can negatively impact the health and well-being of mothers, children, and families (Lengua et al., 2022; RNAO, 2018; Rogers et al., 2020; WHO, 2022b). Appropriate support for families in the perinatal period requires a commitment to the early identification and treatment of PMHDs (CPMHC, 2021; RNAO 2018; Segre et al., 2023; Sim et al., 2023; Slomian et al., 2019). Exclusive breastfeeding has been identified as a protective factor against the development of PMHDs (Chih et al., 2021; Sha et al., 2019). However, difficulty breastfeeding increases the risk of a woman developing PMHDs (Islam et al., 2021; RNAO, 2018; Shen et al., 2023). This is especially true in women who intend to breastfeed and are unable to breastfeed as planned (Borra et al., 2015; Chang et al., 2022; Islam et al., 2021). Women having difficulty breastfeeding can be supported through these challenges with the assistance of LCs (IBLCE, 2018). Although women accessing LC services present with increased rates of PMHDs, significant reductions in PMHDs are noted following LC support (Chrzan-Detkos et al., 2021). RN LCs can support maternal mental health by promoting breastfeeding, supporting mothers through breastfeeding challenges, addressing maternal mental health concerns, and providing screening for PMHDs during LC appointments.

This study employed a qualitative descriptive approach to answer the following research question: What are the experiences of Registered Nurse Lactation Consultants in Nova Scotia related to maternal mental health? As well as two sub-questions: (1) How do Registered Nurse Lactation Consultants incorporate mental health services into their care? and (2) How does access to Lactation Consultant services impact maternal mental health as perceived by Lactation Consultants? Ten RN LCs employed within the publicly funded healthcare system in Nova Scotia engaged in semi-structured interviews with the primary investigator to provide information on this

topic. Based on this information, five overarching themes emerged: (1) Availability of Breastfeeding Support, (2) Experiences Supporting Maternal Mental Health, (3) Providing Maternal Mental Health Care, (4) Access to Services, and (5) Mothers Need Support.

It was clear from the accounts of participants in this study that there are inequities in access to healthcare resources and service delivery for breastfeeding and maternal mental health support across Nova Scotia. RN LCs are working with women at an increased risk of experiencing PMHDs; therefore, they play an important role in screening for PMHDs, and providing maternal mental health support (Chrzan-Detkos et al., 2021; DeRoche et al., 2023). Furthermore, as participants in this study indicated, the length of time allotted for LC appointments provides an opportune time to provide screening for PMHDs. Accessible services that meet the needs of patients and families are essential to supporting an increase in rates of exclusive breastfeeding and a decrease in the number of women suffering for PMHDs. Comprehensive, accessible, and equitable LC support that addresses PMHDs can be leveraged to help support the perinatal mental health of women who wish to breastfeed. Enhancing support for maternal mental health requires collaborative approaches to care and a commitment to ensure healthcare providers working with families in the perinatal period have the education and resources required to provide timely and appropriate support. Moving forward, LCs must be involved in integrated perinatal mental health care and the development of national strategies to support maternal mental health in Canada and beyond.

References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

Bartick, M., Stehel, E.K., Calhoun, S.L., Feldman-Winter, L., Zimmerman, D., Noble, L., Rosen-Carole, C., Kair, L.R., & The Academy of Breastfeeding Medicine. (2021). Academy of Breastfeeding Medicine position statement and guideline: Infant feeding and lactation-related language and gender. *Breastfeeding Medicine, 16*(8), 587-590. https://doi.org/10.1089/bfm.2021.29188.abm

Benoit, B., Goldberg, L., Campbell-Yeo, M. (2015). Infant feeding and maternal guilt: The Application of a feminist phenomenological framework to guide clinical practices in breastfeeding promotion. *Midwifery, 34*, 58-65. https://doi.org/10.1016/j.midw.2015.10.011

Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research, 15*(2), 219-234. https://doi.org/10.1177/146879411246847

Borra, C., Iacovou, M., &Sevilla, A. (2015). New evidence on breastfeeding and postpartum depression: The importance of understanding women's intentions. *Maternal and Child Health Journal, 19*(4), 897-907. https://doi.org/10.1007/s10995-014-1591-z

Bradshaw, C., Atkinson, S., & Doody, O. (2017). Employing a qualitative description approach in health care research. *Global Qualitative Nursing Research, 4*, 1-8. https://doi.org/10.1177/2333393617742282

Bronfenbrenner, U. (1989). Ecological systems theory. In. V.R., *Annals of Child Development Volume 6* (pp. 187-249). Jessica Kingsley Publishers.

Busetto, L., Wick, W., & Gumbinger, C. (2020). How to use and assess qualitative research

methods. *Neurological Research and Practice, 2*(14), 1-10. https://doi.org/10.1186/s42466-020-00059-z

Canadian Perinatal Mental Health Collaborative [CPMHC]. (2021). Time for action: Why Canada needs a national perinatal mental health strategy now more than ever. National Report. https://cpmhc.ca/report/https://doi.org/10.1177/1468794112468475

Centre for Addiction and Mental Health [CAMH]. (2022). Postpartum Depression. https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/postpartum-depression

Centre of Perinatal Excellence [COPE]. (2023). Menthal health care in the perinatal period: Australian Clinical Practice Guideline. 2023 Revision. https://www.cope.org.au/wp-content/uploads/2023/06/COPE_2023_Perinatal_Mental_Health_Practice_Guideline.pdf

Chang, Y-S., Li, K.M.C., Chien, L-Y., Lee, E.Y., Hong, S.A., & Coca, K.P. (2022). Associations Between breastfeeding intention, breastfeeding practices and post-natal depression during the COVID-19 pandemic: A ulti-country cross-sectional study. *Maternal & Child Nutrition, 19,* 1-13. https://doi.org/10.1111/mcn.13450

Chih, H., Betts, K., Scott, J., & Alati, R. (2021). Maternal depressive symptoms and infant feeding practice at hospital discharge: Findings from the born in Queensland study. *Maternal and Child Health Journal, 25,* 385-391. https://doi.org/10.1007/s10995-020-03061-8

Chrzan-Detkos, M., Walczak-Kozlowska, T., Pietkiewicz, A., & Zolnowska, J. (2021). Improvement of the breastfeeding self-efficacy and postpartum mental health after lactation consultations-Observational study. *Midwifery, 94,* 102905. https://doi.org/10.1016/j.midw.2020.102905

Colorafi, K. J., & Evans, B. (2016). Qualitative descriptive method in health science research. *Health Environments Research & Design Journal, 9*(4), 16-25. https://doi.org/10.1177/1937586715614171

Cox, J.L., Holden, J.M. and Sagovsky, R. (1987). Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry, 150*(6), 782-786. https://doi.org/10.1192.bjp.150.6.782

Creswell, J., & Poth, C. (2018). *Qualitative inquiry & research design: Choosing among five approaches.* (4th ed.). Sage Publication.

Davenport, M.H., Meyer, S., Meah, V.L., Strynadka, M.C., & Khurana, R. (2020). Moms are not OK: COVID-19 and maternal mental health. *Frontiers in Global Women's Health, 1,* 1-6. https://doi.org/10.3389/fgwh.2020.00001%20

Denzin, N.K., & Lincoln, Y.S. (2011). *The SAGE handbook of qualitative research.* (4th ed). Sage.

DeRoche, C., Hooykaas, A., Ou, C., Charlebois, J., & King, K. (2023). Examining the gaps in Perinatal mental health care: A qualitative study of the perceptions of perinatal service providers in Canada. *Frontiers in Global Women's Health, 4*, 1-10. https://doi.org/10.3389/fgwh.2023.1027409

Dinour, L.M. (2019). Speaking out on "breastfeeding" terminology: Recommendations for gender-inclusive language in research and reporting. *Breastfeeding Medicine, 14*(8), 523-532. https://doi.org/10.1089/bfm.2019.0110

Doyle, L., McCabe, C., Keogh, B., Brady, A., & McCann, M. (2020). An overview of the qualitative descriptive design within nursing research. *Journal of Research in Nursing 25*(5), 443–455. https://doi.org/10.1177/1744987119880234

Field, T. (2018). Postnatal anxiety prevalence, predictors and effects on development: A narrative review. *Infant behavior & development, 51*, 24–32. https://doi.org/10.1016/j.infbeh.2018.02.005

Finlayson, K., Crossland, N., Bonet, M., & Downe, S. (2020). What matters to women in the postnatal period: A meta-synthesis of qualitative studies. *PloS One, 15*(4), 1-23. 5. https://doi.org/10.1371/journal.pone.0231415

Ford, E., Roomi, H., Hugh, H., & Van Marwijk, H. (2019). Understanding barriers to women seeking and receiving help for perinatal mental health problems in UK general practice: Development of a questionnaire. *Primary Health Care Research & Development, 20*, E156. https://doi.org/10.1017/S1463423619000902

Francis, J., Mildon, A., Stewart, S., Underhill, B., Tarasuk, V., Di Ruggiero, E., Sellen, D., & O'Connor, D.L. (2019). Vulnerable mothers' experiences breastfeeding with an enhanced Community lactation support program. *Maternal & Child Nutrition, 16*, 1-11. https://doi.org.10.1111/mcn.12957

Ghaedrahmati, M., Kazemi, A., Kheirabadi, G., Ebrahimi, A., & Bahrami, M. (2017). Postpartum depression risk factors: A narrative review. *Journal of Education and Health Promotion, 6* (60), 1-7. https://doi.org/10.4103/jehp.jehp_9_16

Gheorghe, M., Varin, M., Wong, S.L., Baker, M., Grywacheski, V., & Orpana, H. (2021). Symptoms of postpartum anxiety and depression among women in Canada: Findings from a national cross-sectional survey. *Canadian Journal of Public Health, 112*(2), 244-252. https://doi.org/0.17269/s41997-020-00420-4

Government of Canada. (2022, November 9). Breastfeeding your baby. https://www.canada.ca/en/public-health/services/health-promotion/childhood-

adolescence/stages-childhood/infancy-birth-two-years/breastfeeding-infant-nutrition.html

Hallberg L. (2013). Quality criteria and generalization of results from qualitative studies. *International Journal of Qualitative Studies on Health and Well-Being*, *8*, 1. https://doi.org/10.3402/qhw.v8i0.20647

Hicks, L.M., Ou, C., Charlebois, J., Tarasoff, L., Pawluski, J., Roos, L.E., Hooykaas, A., Fairbrother, N., Carter, M., & Tomfohr-Madsen, L. (2022). Assessment of Canadian perinatal mental health services from the provider perspective: Where can we improve? *Frontiers in Psychiatry, 13,* 1-10. https:///doi.org/.10.3389/fpsyt.2022.929496

International Board of Lactation Consultant Examiners [IBLCE]. (2018). Scope of practice for International Board-Certified Lactation Consultant (IBCLC) Certificants. https://iblce.org/wp-content/uploads/2018/12/scope-of-practice-2018.pdf

Islam, J.M., Broidy, L., Baird, K., Rahman, M., & Zobair, K.M. (2021). Early exclusive breastfeeding cessation and postpartum depression: Assessing the mediating and moderating role of maternal stress and social support. *PLOS ONE*, *16*(5), 1-19. https://doi.org/10.1371/journal.pone.0251419

Jackson, L., Fallon, V., Harrold, J., & De Pascalis, L. (2022). Maternal guilt and shame in the infant postpartum feeding context: A concept analysis. *Midwifery*, 1-11. https://doi.org/10.1016.midw.2021.103205

Jackson, L., Fallon, V., Harrold, J.A., & De Pascalis, L. (2023). Psychosocial predictors of post-natal anxiety and depression: Using structural equation modelling to investigate the relationship between pressure to breastfeed, health care professional support, post-natal guilt and shame, and post-natal anxiety and depression within an infant feeding context. *Maternal & Child Nutrition,* 1-17. https://doi.org/10.1111/mcn.13558

Jarvis, L., Long, M., Theodorou, P., Barclay Hoffman, S., Soghier, L., & Beers, L. (2021). Perinatal mental health task force: Integrating care across a pediatric hospital setting. *Pediatrics, 148*(6), e2021050300. https://doi.org/10.1542/peds.2021-050300

Johnson, J.L., Adkins, D., & Chauvin, S. (2020). A review of the quality indicators of rigor in qualitative research. *American Journal of Pharmaceutical Education, 84*(1), 1-9. https://doi.org/10.5688/ajpe7120

Keim, S.A., Jackson, J.L., Litteral, J.L., Schofield, K.A., & Crerand, C.E. (2021). Perceptions about lactation consultant support, breastfeeding experiences and postpartum psychosocial outcomes. *Maternal Child Health Journal, 25*(3), 497-506. https://doi.org/10.1007/s10995-020-03056-5

Kim, H., Sefcik, J.S., & Bradway, C. (2017). Characteristics of qualitative descriptive studies: A systematic review. *Research in Nursing and Health, 40*(1), 23-42. https://doi.org/10.1002/nur.21768

Kingston, D., Austin, M. P., Heaman, M., McDonald, S., Lasiuk, G., Sword, W., Giallo, R., Hegadoren, K., Vermeyden, L., van Zanten, S. V., Kingston, J., Jarema, K., & Biringer, A. (2015). Barriers and facilitators of mental health screening in pregnancy. *Journal of Affective Disorders*, *186*, 350–357. https://doi.org/10.1016/j.jad.2015.06.029

Korstjens, I., & Moser, A. (2018). Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *European Journal of General Practice, 24*(1), 120-124. https://doi.org.10.1080/13814788.2017.1375092

Lambert, V.A., & Lambert, C.E. (2012). Qualitative descriptive research: An acceptable design. *Pacific Rim International Journal of Nursing Research, 16*(4), 255–256. https://he02.tci-thaijo.org/index.php/PRIJNR/article/view/5805/5064

Langille, C., Andreou, P., & Piccinini-Vallis, H. (2023). The Prevalence of Pregnancy-Specific Perinatal Anxiety in Nova Scotia. *Maternal and child health journal*, *27*(7), 1127–1132. https://doi.org/10.1007/s10995-023-03639-y

Legere, L.E., Wallace, K., Bowen, A., McQueen, K., Montgomery, P., & Evans, M. (2017). Approaches to health-care provider education and professional development in perinatal depression: A systematic review. *BMC Pregnancy and Childbirth*, *17*(239), 1-13. https://doi.org/10.1186/s12884-017-1431-4

Lengua, L.J., Thompson, S.F., Kim, S.G., Rosen, M.L., Rodman, A., Kasparek, S., Mayes, M., Zalewski, M., Meltzoff, A., & McLaughlin, K.A. (2022). Maternal mental health mediates the effects of pandemic-related stressors on adolescent psychopathology during COVID-19. *The Journal of Child Psychology and Psychiatry*,1-9. https://doi.org/10.1111/jcpp.13610

Levers, M-J. D. (2013). Philosophical paradigms, grounded theory, and perspectives on emergence. *SAGE Open*, 1-6. https://doi.org/10.1177/2158244013517243

Li, R., Fein, S.B., Chen. J., Grummer-Strawn, L.M. (2008). Why mothers stop breastfeedng: Mothers' self-reported reasons for stopping during the first year. *Pediatrics, 122*(2), 69-76. https://doi.org/10.1542/peds.2008-1315i

Lincoln, Y.S., & Guba, E.G. (1985). Naturalistic inquiry. Sage Publications.

MacDonald, J., Bussey, L., & Williams, A. (2022). Primary Care Perinatal Mental Health Toolkit. https://rcp.nshealth.ca/sites/default/files/Primary%20Care%20Perinatal%20Mental%20Health%20Toolkit_2022_0.pdf

Morrison, A., Gentry, R., & Anderson, J. (2019). Mothers' reasons for early breastfeeding cessation. *The American Journal of Maternal/Child Nursing*, *44*(6), 325-330.

https://doi.org/ 10.1097/NMC.0000000000000566

Neergaard, M.A., Olesen, F., Andersen, R.S., & Sondergaard, J. (2009). Qualitative description-the poor cousin of health research? *BMC Medical Research Methodology*, *9*(52), 1-5. https://doi.org/10.1186/1471-2288-9-52

Nova Scotia College of Nursing [NSCN]. (2020). Entry-level competencies for the practice of Registered Nurses. https://www.nscn.ca/sites/default/files/documents/resources/EntryLevelCompetenciesRN.pdf

Nova Scotia Health. (2023). Action for Health-Public Reporting. Nova Scotians on the Need a Family Practice Registry-December 2023. https://public.tableau.com/app/profile/nova.scotia.health/viz/ActionforHealth-PublicReporting/Overview

Orange, A. (2016). Encouraging reflective practices in doctoral students through research journals. *The Qualitative Report*, *21*(12), 2176-2190. https://doi.org/10.46743/2160-3715/2016.2450

Ortlipp, M. (2008). Keeping and using reflective journals in the qualitative research process. *The Qualitative Report, 13*(4), 695-705. https://doi.org/10.46743/2160-3715/2008.1579

Palinkas, L.A., Horwitz, S.M., Green, C.A., Wisdom, J.P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health, 42*(5), 533-544. https://doi.org/10.1007/s10488-013-0528-y

Polit, D.F., & Beck, C.T. (2014). *Essentials of nursing research: Appraising evidence for nursing practice.* (8th ed.). Wolters Kluwer.

Province of Nova Scotia (2023, February 1). News release. New technology to improve patient care. https://novascotia.ca/news/release/?id=20230201001

Racine, N., Hetherington, E., McArthur, B.A., McDonald, S., Edwards, S., Tough, S., & Madigan, S. (2021). Maternal depressive and anxiety symptoms before and during the COVID-19 pandemic in Canada: A longitudinal analysis. *The Lancet Psychiatry, 8*(5), 405-415. https://doi.org/10.1016/ S2215-0366(21)00074-2

Rasmussen K.M., Felice, J.P., O'Sullivan, E.J., Garner, C.D., & Geraghty, S.R. (2017). The meaning of ''breastfeeding'' is changing and so must our language about it. *Breastfeeding Medicine, 12*(9), 510–514. https://doi.org/10.1089/bfm.2017.0073

Registered Nurses' Association of Ontario [RNAO]. (2018). Assessment and interventions for perinatal depression. (2 ed.). Best Practice Guidelines. https://rnao.ca/sites/rnao-ca/files/bpg/Perinatal_Depression_FINAL_web_0.pdf

Reproductive Care Program of Nova Scotia [RCP]. (2022, April). Guidelines for Antenatal Screening & Testing. https://rcp.nshealth.ca/sites/default/files/clinical-practice-guidelines/Final%20Guidelines%20Antenatal%20Screening%20and%20Testing%2011X17%20April%202022.pdf

Reproductive Care Program of Nova Scotia [RCP]. (2023). Care Pathway for the Management of Perinatal Mental Health an Addictions. https://iwkhealth.ca/sites/default/files/2023-09/Provider%20Care%20Pathway%20for%20MH%20and%20Addictions%20-%20Copy%202_0.pdf

Ricci, C., Otterman, V., Bennett, T-L., Metcalfe, S., Darling, E., Semenic, S., & Dzakpasu, S. (2023). Rates of and factors associated with exclusive and any breastfeeding at six months in Canada: An analysis of population-based cross-sectional data. *BMC Pregnancy and Childbirth, 23*(56), 1-11. https://doi.org/10.1186/s12884-023-05382-2

Rogers, A., Obst, S., & Teague, S.J. (2020). Association between maternal perinatal depression

and anxiety and child and adolescent development: A meta-analysis. *JAMA Pediatrics, 174*(11), 1082-1092. https://doi.org/10.1001/jamapediatrics.2020.2910

Saldana, J. (2018). Researcher, analyze thyself. *The Qualitative Report, 23*(9), 2036-2046. https://doi.org/10.46743/2160-3715/2018.3685

Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing and Health, 23*(4), 334-340. https://doi.org/10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0.CO;2-G

Sandelowski, M. (2010). What's in a name? Qualitative description revisited. *Research in Nursing & Health, 33,* 77-84. https://doi.org/10.1002/nur.20362

Segre, G., Clavenna, A., Cartabia, M., & Bonati, M. (2023). Postpartum depression screening in mothers and fathers at well-child visits: a feasibility study within the NASCITA cohort. *BMJ Open, 13,* 1-11. https://doi.org/10.1136/bmjopen-2022-069797

Sha, T., Gao, X., Chen, C., Li, L., Cheng, G., Wu, X., Tian, Q., Yang, F., He, Q., Yan, Y. (2019). A prospective study of maternal postnatal depressive symptoms with infant-feeding practice in a Chinese birth cohort. *BMC Pregnancy and Childbirth, 19*(388), 1-9. https://doi.org/10.1186/s12884-019-2559-1

Shen, F., Zhou, X., Guo, F., Fan, K., Zhou, Y., Xu, Z., & Liu, Z. (2023). Increased risk of postpartum depression in women with lactational mastitis: A cross-sectional study. *Frontiers in Psychiatry, 14,* 1-8. https://doi.org/10.3389/fpsyt.2023.1229678

Sim, C.S.M., Chen, H., Chong, S-L., Xia, O.J., Chew, E., Guo, X., Ng, L.P., Ch'ng, Y.C., Ong, J.L.H., Tan, J., Ng, D.C.C. Tan, N.C., & Chan, Y.H. (2023). Primary health level screening for postpartum depression during well-child visits: Prevalencce, associated risk factors, and breastfeeding. *Asian Journal of Psychiatry, 87,* 1-5.

https://doi.org/10.1016/j.ajp.2023.103701

Slomian, J., Honvo, G., Emonts, P., Reginster, J-Y., & Bruyere, O. (2019). Consequences of maternal postpartum depression: A systematic review of maternal and infant outcomes. *Women's Health, 15,* 1-55. https://doi.org/10.1177/1745506519844044

Snyder, K., Hulse, E., Dingman, H., Cantrell, A., Hanson, C., & Dinkel, D. (2021). Examining supports and barriers to breastfeeding through a socio-ecological lens: A qualitative study. *International Breastfeeding Journal, 16*(52), 1-8. https://doi.org/10.1186/s13006-021-00401-4

Statistics Canada. (2019, June 24). Maternal Mental Health in Canada, 2018/2019. https://www150.statcan.gc.ca/n1/daily-quotidien/190624/dq190624b-eng.htm

Statistics Canada. (2022, August 4). Stats Can Plus. Overwhelming majority of Canadian women start breastfeeding soon after giving birth, and more than half stop within six months. https://www.statcan.gc.ca/o1/en/plus/1422-overwhelming-majority-canadian-women-start-breastfeeding-soon-after-giving-birth-and-more

Tarasoff, L., Ou, C., Hooykaas, A., Charlebois, J., Tomfohr-Madsen, L., Tomasi, P. (2021). Surveying providers to identify gaps in perinatal mental health services during the COVID-19 pandemic. *Journal of Obstetrics and Gynaecology Canada, 43*(5), 661-662. https://doi.org/10.1016/j.jogc.2021.02.044

Teherani, A., Martimianakis, T., Stenfors-Hayes, T., Wadhwa, A., & Varpio, L. (2015). Choosing a qualitative research approach. *Journal of Graduate Medical Education, 7*(4), 669-670. https://doi.org/10.4300/JGME-D-15-00414.1

van der Zee-van den Berg, A. I., Boere-Boonekamp, M. M., Groothuis-Oudshoorn, C. G. M., & Reijneveld, S. A. (2021). Postpartum depression and anxiety: A community-based study

on risk factors before, during and after pregnancy. *Journal of Affective Disorders*, *286*, 158–165. https://doi.org/10.1016/j.jad.2021.02.062

Vigod, S.N., Brown, H.K., Huang, A., Fung, K., Barker, L.C., Hussain-Shamsy, N., Wright, E., Dennis, C-L., Grigoriadis, S., Gozdyra, P., Corsi, D., Walker, M., & Moineddin, R. (2021). Postpartum mental illness during the COVID-19 pandemic: a population-based, repeated cross-sectional study. *Canadian Medical Association Journal, 193*(23), 835-843. https://doi.org/10.1503/cmaj.210151

Wang, Z., Liu, J., Shuai, H., Cai, Z., Fu, X., Liu, Y., Xiao, X., Zhang, W., Krabbendam, E., Liu, S., Liu, Z., Li, Z., & Yang, B.X. (2021). Mapping global prevalence of depression among postpartum women. *Translational* Psychiatry 11 (543), 1-24. https://doi.org/10.1038/s41398-021-01663-6

Webber, E., & Benedict, J. (2019). Postpartum depression: A multi-disciplinary approach to screening, management and breastfeeding support. *Archives of Psychiatric Nursing*, *33*(3), 284-289. https://doi.org/10.1016/j.apnu.2019.01.008

World Health Organization [WHO]. (2021). Infant and young child feeding. https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding

World Health Organization [WHO]. (2022a, December 10). Human rights. https://www.who.int/news-room/fact-sheets/detail/human-rights-and-health

World Health Organization [WHO]. (2022b). Guide for integration of perinatal mental health in maternal and child health services. https://www.who.int/publications/i/item/9789240057142

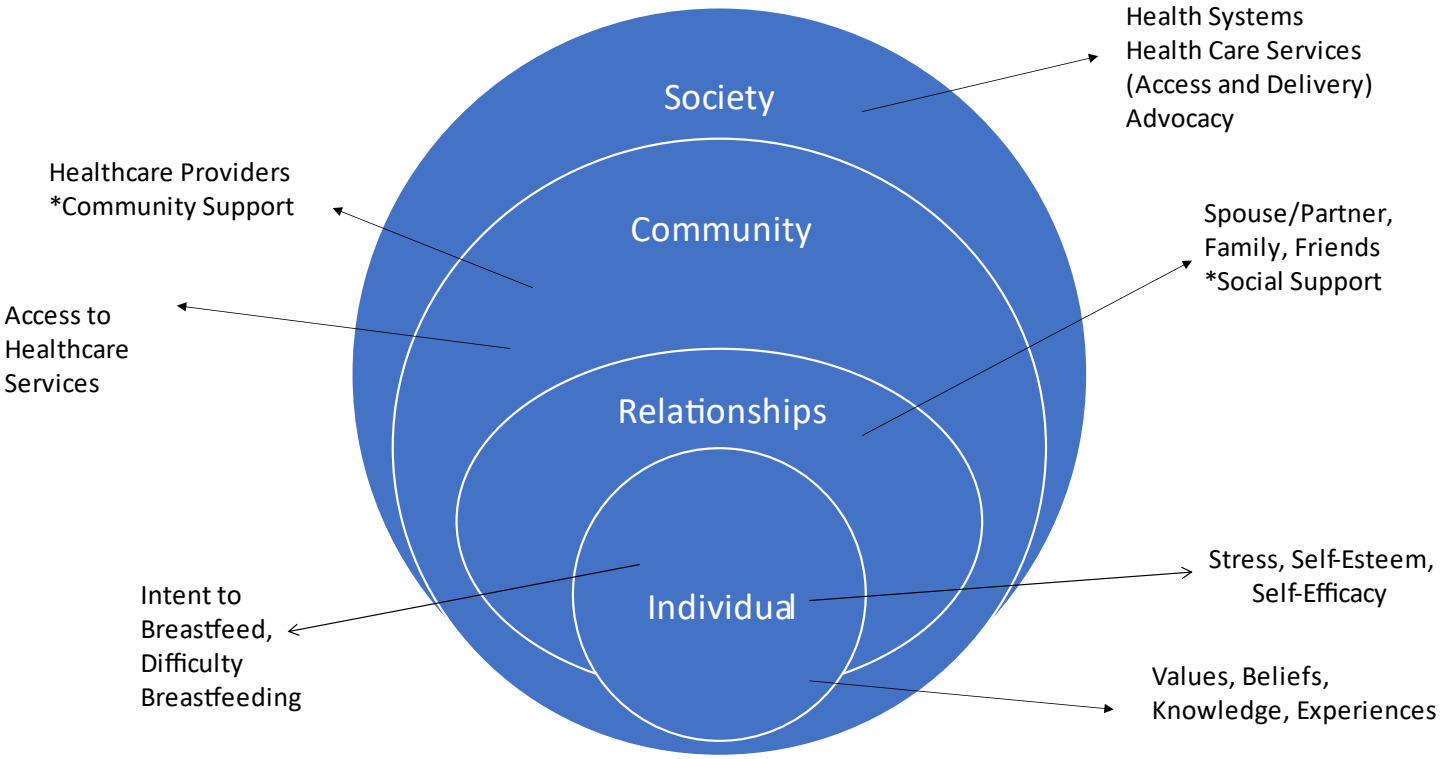
World Health Organization [WHO]. (2023). Social determinants of health. https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1

Xu, H., Ding, Y., Ma, Y., Xin, X., & Zhang, D. (2017). Cesarean section and risk of postpartum

depression: A meta-analysis. *Journal of Psychosomatic Research, 97,* 118-126. http://dx.doi.org/10.1016/j.jpsychores.2017.04.016

Figure 1

Conceptual Model: An Adaptation of the Social Ecological Model of Health



Note: A conceptualization of the factors influencing breastfeeding and maternal mental health.

Appendix A: Athabasca University Ethical Approval

Athabasca University
RESEARCH CENTRE

CERTIFICATION OF ETHICAL APPROVAL

The Athabasca University Research Ethics Board (REB) has reviewed and approved the research project noted below. The REB is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2) and Athabasca University Policy and Procedures.

Ethics File No.: 25193

Principal Investigator:
Mrs. Kelly DeCoste, Graduate Student
Faculty of Health Disciplines\Master of Nursing

Supervisor/Project Team:
Dr. Steven (Dr.) Johnson (Co-Supervisor)
Dr. Georgia Dewart (Co-Supervisor)

Project Title:
Supporting Maternal Mental Health in Nova Scotia: The Experiences of Registered Nurse Lactation Consultants.

Effective Date: March 07, 2023 **Expiry Date:** March 6, 2024

Restrictions:

Any modification/amendment to the approved research must be submitted to the AUREB for approval prior to proceeding.

Any adverse event or incidental findings must be reported to the AUREB as soon as possible, for review.

Ethical approval is valid *for a period of one year*. An annual request for renewal must be submitted and approved by the above expiry date if a project is ongoing beyond one year.

An Ethics Final Report must be submitted when the research is complete *(i.e. all participant contact and data collection is concluded, no follow-up with participants is anticipated and findings have been made available/provided to participants (if applicable))* or the research is terminated.

Approved by: **Date: March 07, 2023**

Barbara Wilson-Keates, Chair
Faculty of Health Disciplines Departmental Ethics Review Committee

---

Athabasca University Research Ethics Board
University Research Services Office
1 University Drive, Athabasca AB Canada T9S 3A3
E-mail rebsec@athabascau.ca
Telephone: 780.213.2033

Appendix B: Nova Scotia Health Ethical Approval

Nova Scotia Health Research Ethics Board
Centre for Clinical Research, Room 121
5790 University Avenue
Halifax, Nova Scotia, Canada B3H 1V7
josie.leclair@nshealth.ca

May 05, 2023

Mrs. Kelly Decoste
Health\Nursing
295 Williams Point Road
Antigonish, NS
B2G 0B4

Delegated Review
Full Approval Letter
(May 05, 2023 to May 05, 2024)

Dear Mrs. Decoste:

RE: Supporting Maternal Mental Health in Nova Scotia: The Experiences of Registered Nurse Lactation Consultants.

REB File #: 1029160

Thank you for your response regarding your proposed study.

If there are any further changes to the Waiver of Consent by the Privacy Office, please submit the final version to the Research Ethics Office as an amendment to this file.

Document Name	Comments	Version Date
Consent Form - paper version	Amended Consent Form Version2	2023/05/04
Supporting Materials	Request for Recruitment Assistance V2	2023/05/04
Supporting Materials	Invitation to Participate Revised V2	2023/05/04
Supporting Materials	Semi-Structured Interview Protocol Revised V2	2023/05/04
Supporting Materials	Participant Distress Protocol Revised V2	2023/05/04
Research Protocol	Research Protocol V2	2023/05/04
Certificate of Completion TCPS 2: CORE	SI TCPS Certificate	2013/10/15
Investigator Response/Revisions	Revision/Clarification Letter	2023/05/04

I have reviewed these documents on behalf of the Nova Scotia Health Research Ethics Board and note that all requested changes have been incorporated.

I am now pleased to confirm the Board's full approval for this research study, effective today. This includes approval / favorable opinion for the following study documents:

Document Name	Comments	Version Date
Letter of Support	PI Department-Letter of Support	2023/03/30
Letter of Support	SI Letter of Support	2023/03/28
Consent Form - paper version	Amended Consent Form_Version2	2023/05/04
Other	Thesis Proposal Exam Confirmation-PASS	2023/03/30
Other	Reference List	2023/03/26
Other	Athabasca University REB Approval	2023/03/07
Supporting Materials	Request for Recruitment Assistance V2	2023/05/04
Supporting Materials	Invitation to Participate Revised V2	2023/05/04
Supporting Materials	Semi-Structured Interview Protocol Revised V2	2023/05/04
Supporting Materials	Participant Distress Protocol Revised V2	2023/05/04
Research Protocol	Research Protocol V2	2023/05/04
Certificate of Completion TCPS 2: CORE	SI TCPS Certificate	2013/10/15
Curriculum Vitae (CV)	SI CV	2023/03/30
Certificate of Completion TCPS 2: CORE	PI TCPS	2022/03/05
Curriculum Vitae (CV)	PI CV	2023/03/27
Investigator Response/Revisions	Revision/Clarification Letter	2023/05/04

Continuing Review

1. The Board's approval for this study will expire one year from the date of this letter **May 05, 2024.** To ensure continuing approval, submit a Request for Annual Approval to the Board 2-4 weeks prior to this date. If approval is not renewed prior to the anniversary date, the Board will close your file and you must cease all study activities immediately. To reactivate a study, you must submit a new Initial Submission (together with the usual fee) to the REB and await notice of re-approval.

2. Please be sure to notify the Board of any:
   - Proposed changes to the initial submission (i.e., new or amended study documents or supporting materials),
   - Additional information to be provided to study participants,

- Material designed for advertisement or publication with a view to attracting participants,
- Serious unexpected adverse reactions experienced by local participants,
- Unanticipated problems involving risks to participants or others,
- Sponsor-provided safety information,
- Additional compensation available to participants,
- Upcoming audits /inspections by a sponsor or regulatory authority,
- Premature termination / closure of the study (within 90 days of the event).

3. Approved studies may be subject to internal audit. Should your research be selected for audit, the Board will advise you and indicate any other requests at that time.

Important Instructions and Reminders

1. Submit all correspondence to **Ethics Coordinator, Josie LeClair** at the address listed at the top of this letter (do not send your response to the REB Chair or Co-Chair).
2. Login to the Research Portal; click Applications (Post Review), browse through files to locate the study in which you wish to make revisions to; click the Events Button and choose the type of revision you wish to make from the table provided; complete the electronic form and attach document under the attachments tab if required and Click on the Submit button.
3. Be sure to reference the Board's assigned file number, 1029160, on all communications.
4. Highlight all changes on revised documents and remember to update version numbers and/or dates.

Best wishes for a successful study.

Sincerely,

Dylana Arsenault, BScBio, BScPharm, ACPR, PharmD
Co-Chair, Nova Scotia Health Research Ethics Board

This statement is in lieu of Health Canada's Research Ethics Board Attestation:
The Research Ethics Board for Nova Scotia Health operates in accordance with:

- Part C Division 5 of the *Food and Drug Regulations* or with the definition in the *Interim Order Respecting Clinical Trials for Medical Devices and Drugs Relating to COVID-19*
- *Natural Health Products Regulations, Part 4 "Clinical Trials Involving Human Subjects"*
- *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2)*
- *ICH Good Clinical Practice: Consolidated Guideline (ICH-E6)*

cc: Research & Innovation

Appendix C: IWK Health Ethical Approval

Research & Innovation Advancement
IWK Health
5850/5980 University Avenue
PO Box 9700, Halifax
Nova Scotia | B3K 6R8
Canada

Confirmation of Administrative Review
May 11, 2023

Principal Investigator: Kelly Decoste
Title: Supporting Maternal Mental Health in Nova Scotia: The Experiences of Registered Nurse Lactation Consultants.
Project #: 1029160

On behalf of the IWK Research Ethics Board (IWK-REB), I am acknowledging the above-named Project has received administrative review. Should there be any amendments to the protocol which would impact the service being provided by the IWK, it is the responsibility of the Principal Investigator to forward documentation of approval to the IWK REB.

To align with the REB of Record's approval, this administrative review is effective to May 05, 2024. To extend the date of this approval, the IWK REB must receive a copy of the REB of Record's annual renewal.

Best wishes for a successful study.

Yours truly,

Megan Thomas
Co-Chair, Research Ethics Board

This acknowledgment includes the following:

Document Name	Version Date
NSHA REB Approval	2023/05/05

Appendix D: Invitation to Participate

INVITATION TO PARTICIPATE

Supporting Maternal Mental Health in Nova Scotia:

The Experiences of Registered Nurse Lactation Consultants

May 4, 2023

Principal Investigator (Researcher): **Supervisors:**

Kelly DeCoste, BScN, RN kmackeigan2@learn.athabascau.ca
Dr. Steven Johnson, Ph.D. sjohnson@athabascau.ca
Dr. Georgia Dewart, Ph.D., RN gdewart@athabascau.ca

My name is Kelly DeCoste, and I am a Master of Nursing student at Athabasca University. As a requirement to complete my degree, I am conducting a research project about the experiences of Registered Nurse Lactation Consultants related to maternal mental health in Nova Scotia. I am conducting this project under the supervision of Dr. Steven Johnson and Dr. Georgia Dewart.

I invite you to participate in this project because you are a Registered Nurse Lactation Consultant currently working in Nova Scotia with Nova Scotia Health or Izaak Walton Killam Health.

The aims of this research project are to understand the experiences of Registered Nurse Lactation Consultants in Nova Scotia related to maternal mental health by learning about how Registered Nurse Lactation Consultants incorporate mental health services into their care and how they believe access to Lactation Consultant services impacts maternal mental health.

Your participation in this project would involve partaking in a one-on-one online interview with the principal investigator using Microsoft Teams. The interview will take approximately 30 to 60 minutes to complete. Audio will be recorded, and you will be given the option of whether you wish to have the interview video recorded. The interview will be arranged at a time that is convenient for your schedule. If you choose to participate in this study, you will be able to withdraw at any point before data analysis which is anticipated to begin by June 30, 2023. You must contact the principal investigator with your intent to withdraw from the study on or before June 30, 2023.

In addition to the initial interview, you will be given the option of reviewing your interview transcripts to clarify comments and to ensure that data analysis accurately reflect your responses. Documents for review will be sent to you via email, and you will have the option of providing feedback via email correspondence or on Microsoft Teams with audio and/or video recording.

All information you provide during the study will be anonymized and coded to protect your identity and maintain confidentiality. Data will be stored on the computer of the principal investigator. This device is password protected, and individual files will be encrypted and

password protected to prevent unauthorized access. Passwords will only be available to the primary investigator, and results will be shared with supervisors. Paper copies of data will be stored in a filing cabinet in the office of the primary researcher and double-locked.

Participation in this research may bring forth heightened emotional responses or distress as difficult nursing experiences related to maternal mental health may be brought forth throughout the interview process. Information on access to mental health support will be provided to you at any point during the interview if needed.

The research will support the development of knowledge related to the experiences of Registered Nurse Lactation Consultants regarding maternal mental health. This research may also contribute to policy changes aimed at increasing support for the mental health of women who wish to breastfeed.

Thank you for considering this invitation. If you have any questions or would like more information, please contact me (the principal investigator) by e-mail at kmackeigan2@learn.athabascau.ca or my supervisors by email at sjohnson@athabascau.ca or gdewart@athabascau.ca

Thank you.

Kelly DeCoste

This project has been reviewed by the Athabasca University Research Ethics Board and the Nova Scotia Health Research Ethics Board. Should you have any comments or concerns about your treatment as a participant, the research, or ethical review processes, please contact the Research Ethics Officer at Athabasca University by e-mail at rebsec@athabascau.ca or by telephone at 780.213.2033, and/or the Nova Scotia Health Research Ethics Board Office by email at ResearchEthics@nshealth.ca or by phone at 902-222-9263.

Appendix E: Letter of Information/Informed Consent Form

LETTER OF INFORMATION / INFORMED CONSENT FORM

Supporting Maternal Mental Health in Nova Scotia:

The Experiences of Registered Nurse Lactation Consultants

May 4, 2023

Principal Investigator (Researcher): **Supervisors:**

Kelly DeCoste, BScN, RN kmackeigan2@learn.athabascau.ca
Dr. Steven Johnson, Ph.D. sjohnson@athabascau.ca
Dr. Georgia Dewart, Ph.D., RN gdewart@athabascau.ca

You are invited to participate in a research project entitled: Supporting Maternal Mental Health in Nova Scotia: The Experiences of Registered Nurse Lactation Consultants.

This form is part of the process of informed consent. The information presented should give you a basic idea of what this research is about and what your participation will involve, should you choose to participate. It also describes your right to withdraw from the project. To decide whether you wish to participate in this research project, you should understand enough about its risks, benefits and what it requires of you to make an informed decision. This is the informed consent process. Please take time to read this carefully, as it is essential that you understand the information given to you. Contact the principal investigator, Kelly DeCoste, at kmackeigan2@learn.athabascau.ca if you have any questions about the project or would like more information before you consent to participate.

It is entirely up to you whether or not you participate in this research. If you choose not to take part or if you decide to withdraw from the study once it has started, there will be no negative consequences for you now or in the future.

Introduction

My name is Kelly DeCoste, and I am a Master of Nursing student at Athabasca University. As a requirement to complete my degree, I am conducting a research project about the experiences of Registered Nurse Lactation Consultants related to maternal mental health in Nova Scotia. I am conducting this project under the supervision of Dr. Steven Johnson and Dr. Georgia Dewart.

Why are you being asked to take part in this research project?

You are being invited to participate in this project because you are a Registered Nurse Lactation Consultant currently working in Nova Scotia with Nova Scotia Health or Izaak Walton Killam Health.

How many people will take part in this study?

It is anticipated that about eight to ten Registered Nurse Lactation Consultants will participate in this study throughout the province of Nova Scotia, Canada. All eight to ten participants will be recruited locally from Nova Scotia Health and Izaak Walton Killam Health.

What is the purpose of this research project?
The purpose of this research project is to understand the experiences of Registered Nurse Lactation Consultants in Nova Scotia related to maternal mental health. Another aim of this research is to learn about how Registered Nurse Lactation Consultants incorporate mental health services into their care and how they believe access to Lactation Consultant services impacts maternal mental health.

What will you be asked to do?
Your participation in this project would involve partaking in a one-on-one interview with the principal investigator using Microsoft Teams. The interview will take approximately 30 to 60 minutes to complete. Audio will be recorded, and you will be given the option of whether you wish to have the interview video recorded. The interview will be arranged at a time that is convenient for your schedule.

In addition to the initial interview, you will be given the option of reviewing your interview transcripts to clarify comments and to ensure that data analysis and manuscript preparation accurately reflect your responses. Documents for review will be sent to you via email, and you will have the option of providing feedback via email correspondence or on Microsoft Teams with audio and/or video recording.

What are the risks and benefits?
Participation in this research may bring forth heightened emotional responses or distress as difficult nursing experiences related to maternal mental health may be brought forth throughout the interview process. Information on access to mental health support will be provided to you at any point during the interview process if needed.

This research will support the development of knowledge related to the experiences of Registered Nurse Lactation Consultants regarding maternal mental health. This research may also contribute to policy changes aimed at increasing support for the mental health of women who wish to breastfeed. Participation in this research project does not provide direct benefits to participants.

Compensation
You will not be reimbursed for your participation in this study. Participation in this study is not anticipated to result in added costs to you.

Research Related Injury
If you become injured (privacy breach) as a direct result of allowing access to your information, the following will apply. Your signature on this form indicates that you have understood to your satisfaction the information regarding your participation in this research study. In no way does this waive your legal rights nor release the principal investigator, the research team, the study sponsor or involved institutions from their legal and professional responsibilities.

Do you have to take part in this project?

No, involvement in this project is entirely voluntary. You may end your participation in this project at any point during the interview process by verbalizing your wishes to the primary researcher. Upon request, the interview will be immediately terminated. Any data collected before a participant's decision to withdraw consent will not be included in the study findings. Paper documentation will be shredded, and audio and/or video recordings will be permanently deleted. If consent is withdrawn following completion of the interview, intent to withdraw must be received prior to data analysis which is anticipated to begin by June 30, 2023. You must notify the primary investigator on or before June 30, 2023 of your intent to withdraw from the study to ensure that your data is not included in data analysis and manuscript preparation.

How will your privacy and confidentiality be protected?
The ethical duty of confidentiality includes safeguarding participants' identities, personal information, and data from unauthorized access, use or disclosure. Your privacy and confidentiality will be protected by removing your name from any data during transcription. All interviews will be conducted one-on-one with the principal investigator as a means of increasing privacy during the process of data collection.
Please note: all information will be held confidential, except when legislation or a professional code of conduct requires that it be reported.

How will my anonymity be protected?
Anonymity refers to protecting participants' identifying characteristics, such as name or description of physical appearance.

Every reasonable effort will be made to ensure your anonymity; you will not be identified using your name in publications. Your name will be replaced with a pseudonym during transcription, and your name will not be directly associated with your interview data. Your name, audio and/or video recordings will not appear in any published reports of this research.

How will the data collected be stored?

- Audio and/or video data will be collected using Microsoft Teams. Data will remain with Microsoft until it is transferred to the primary investigator's computer on the day of data collection. Data will then be stored on Athabasca University's OneDrive and on the primary investigator's password-protected computer.
- Data will be shared between the primary investigator (Kelly DeCoste) and research supervisors Dr. Steven Johnson and Dr. Georgia Dewart.
- Your data will be protected using a pseudonym naming system. Information connecting your information and the pseudonym naming system as well as paper copies of research data will be stored in a filing cabinet in the primary researcher's office; this information will be double-locked.
- Data will be kept for five years, then irreversibly destroyed. Paper copies will be shredded and burned. Digital files will be irreversibly deleted.
- No anticipated secondary use of the data is anticipated at this time. Further REB approval would be sought if a later project is designed.

This study will use the Microsoft Teams platform to collect data; this is an externally hosted cloud-based service. When information is transmitted over the internet, privacy cannot be guaranteed. There is always a risk that a third party may intercept your responses (e.g., government agencies, hackers). Further, while Athabasca University researchers will not collect or use IP address or other information which could link your participant to your computer or electronic devices without informing you, there is a small risk with any platform such as this of

data that is collected on external servers falling outside the control of the research team. If you are concerned about this, we would be happy to make alternative arrangements (where possible) for you to participate, perhaps via telephone or in person. Please contact the principal investigator, Kelly DeCoste, at kmackeigan2@learn.athabascau.ca for further information.

Recordings (audio/video) will be saved in a password-protected file to the primary investigator's local computer, not the cloud-based service.

Please note that it is the expectation that participants agree not to make any unauthorized recordings of the content of a meeting/data collection session.

Who will receive the results of the research project?
Select direct quotes will be reported in the final research report; however, they will not be associated with any personally identifying information to maintain confidentiality. The audio and video recordings will not be used to disseminate the study findings.

The existence of the research will be listed in an abstract posted online at the Athabasca University Library's Digital Thesis and Project Room and the final research paper will be publicly available. A link to access the repository will be provided to participants once the project is complete and the final report is available. Participants can choose whether to receive a copy of these documents during the process of informed consent. Additionally, if accepted for publication, the results of this research may be published in academic journals.

Declaration of Financial Interest
This study is unfunded. The Primary Investigator has no vested financial interest in conducting the study.

What are my rights?
You have the right to all information to help you decide whether or not to participate in this study. You also have the right to ask questions about this study and to have them answered to your satisfaction before you make any decision. You also have the right to ask questions and to receive answers throughout this study. You have the right to withdraw your consent at any time.

If you have questions about your rights as a research participant and/or concerns or complaints about this research study, you can contact the Athabasca University Research Ethics Board by e-mail at rebsec@athabascau.ca or by telephone at 780.213.2033 and/or the Nova Scotia Health Research Ethics Board Office by email at ResearchEthics@nshealth.ca or by phone at 902-222-9263.

Who can you contact for more information or to indicate your interest in participating in the research project?
Thank you for considering this invitation. If you have any questions or would like more information, please contact Kelly DeCoste, (the principal investigator) by e-mail at kmackeigan2@learn.athabascau.ca or my supervisors, Dr. Steven Johnson (sjohnson@athabascau.ca) and Dr. Georgia Dewart (gdewart@athabascau.ca). If you are ready to participate in this project, please complete and sign the attached Consent Form and return it by e-mail to Kelly DeCoste, at kmackeigan2@learn.athabascau.ca by May 31, 2023.

Kelly DeCoste

This project has been reviewed by the Athabasca University Research Ethics Board and the Nova Scotia Health Research Ethics Board. Should you have any comments or concerns about your treatment as a participant, the research, or ethical review processes, please contact the Research Ethics Officer at Athabasca University by e-mail at rebsec@athabascau.ca or by telephone at 780.213.2033, and/or the Nova Scotia Health Research Ethics Board Office by email at ResearchEthics@nshealth.ca or by phone at 902-222-9263.

Supporting Maternal Mental Health in Nova Scotia:
The Experiences of Registered Nurse Lactation Consultants

May 5, 2023

Principal Investigator (Researcher): **Supervisors:**

Kelly DeCoste, BScN, RN kmackeigan2@learn.athabascau.ca
Dr. Steven Johnson, Ph.D. sjohnson@athabascau.ca
Dr. Georgia Dewart, Ph.D., RN gdewart@athabascau.ca

Informed Consent:

Please review the information below before your scheduled interview time. This information will be reviewed with you before commencing the interview, and you will be provided with ample time to ask questions or seek clarification if needed. If you wish to proceed with participating in the study, your informed consent will be collected verbally and recorded on Microsoft Teams before beginning the interview.

Your signature on this form means that:

- You have read the information about the research project.
- You have been able to ask questions about this project.
- You are satisfied with the answers to any questions you may have had.
- You understand what the research project is about and what you will be asked to do.
- You understand that you are free to withdraw your participation in the research project without having to give a reason and that doing so will not affect you now or in the future.
- You understand that if you choose to end your participation **during** data collection, any data collected will be destroyed and not included as part of the research study.
- You understand that if you choose to withdraw **after** data collection has ended, your data can be removed from the project at your request up to June 30, 2023.

	YES	NO
I agree to be audio-recorded.	◯	◯
I agree to be video-recorded.	◯	◯
I agree to the use of direct quotations.	◯	◯
I am willing to be contacted following the interview to verify that my comments are accurately reflected in the transcript and manuscript preparation.	◯	◯
Upon completion, I would like the primary researcher to e-mail me a copy of the final research report.	◯	◯

Your signature confirms:

- You have read what this research project is about and understood the risks and benefits. You have had time to think about participating in the project and had the opportunity to ask questions and have those questions answered to your satisfaction.
- You understand that participating in the project is entirely voluntary and that you may end your participation at any time without any penalty or negative consequences.
- You have been given a copy of this Informed Consent form for your records; and
- You agree to participate in this research project.

_____ _____

Signature of Participant Date

I have explained this project to the best of my ability. I invited questions and responded to any that were asked. I believe that the participant fully understands what is involved in participating in the research project and any potential risks and that they have freely chosen to participate.

_____ _____

Signature of Principal Investigator Date

Appendix F: Semi-Structured Interview Guide

Semi-Structured Interview Guide

Throughout the interview, I will reference the term perinatal mental health disorders. When I use this term, I am referring to a group of disorders including depression, anxiety, obsessive-compulsive disorder, bipolar disorder, post-traumatic stress disorder, and psychosis. In the interview, you are welcome to use the term PMHDs or the label describing the specific PMHD or PMHDs you are discussing.

General Information: I would like to start by asking a few specific demographic questions before beginning the research interview. These questions will elicit potentially identifiable information, so the Microsoft Teams recording will be paused. This will help protect your confidentiality and ensure that your interview data is not associated with any personally identifiable information. I will let you know when the recording will be stopped and when it will be resumed.

1. How long have you been practicing as a Registered Nurse?
2. How long have you had IBCLC designation?
3. What is your current role?
4. How long have you been in your current role?

Interview start:

1. Can you tell me about your path to becoming an RN-IBCLC?
2. What does a typical workday look like for you?
3. What services do IBCLCs provide in your current place of employment?

    Prompts:

    - How many LCs are working in your practice setting? Full-time or part-time?
    - Do you have dedicated time in your schedule to provide lactation care? Are you expected to fulfil roles outside your LC services during this time?
    - What specific care do you offer?
    - Is there a waitlist for your care? If so, how long?
    - At what point in the perinatal period can women first access your care?
    - Is there a time limit to the care that is offered? If so, please explain.

4. Can you tell me about your experiences related to maternal mental health in your role as a Registered Nurse Lactation Consultant?

    Prompts:

    - Can you tell me about a positive experience you had while supporting maternal mental health?
    - Can you tell me about a negative experience you had while supporting maternal mental health?
    - How did these experiences impact you as a Register Nurse LC?

5. Can you tell me how you incorporate mental health services into your care as a Registered Nurse Lactation Consultant?

    Prompts:

    - Is there mandated screening for PMHDs in your place of employment? If so, what is used and when? If not, when is screening initiated?
    - What PMHDs are you seeing most commonly in practice?
    - How do you feel mental health care/support is received from mothers?
    - How do mothers benefit from PMHD screening at LC appointments?

6. How do you feel access to LC services impacts maternal mental health?

    Prompts:

    - What individual factors impact a mother's experience with breastfeeding? PMHDs?
        - How do the social determinants of health influence an individual's access to LC services?
    - What relational/relationship factors impact mothers' experience with breastfeeding and PMHDs?
    - Do you feel there is equitable access to LC and maternal mental health services in your area? If no, why? If yes, why?
    - What resources are needed to support the mental health of women who wish to breastfeed?
        - **Prompt on:** Health system level, community level
        - **Prompt on:** Locally, provincially, nationally

7. How do you feel the COVID-19 pandemic has impacted the care you provide as an RN LC?

8. Are there any final things that you feel are important to mention about LC services and maternal mental health that we didn't touch on today?

Appendix G: Participant Distress Protocol

Participant Distress Protocol

Voluntary Consent/Right to Withdraw

In accordance with the ethical principles of voluntary consent and the right to withdraw, participants may choose to end the interview at any point. When interviews are terminated, collected data will not be used as part of the research study. The participant will be given the option to reschedule the interview.

Intervention by the Primary Investigator

If the participant displays heightened emotional responses or distress during the interview, they will be offered a break with termination of audio recording or to conclude the interview. If a participant chooses to terminate an interview audio recording will end, and the primary investigator will offer the participant the following supports:

- The primary investigator will ask the participant if they would like a support person contacted on their behalf and offer to remain with the participant until the support person arrives.
- The primary investigator will ask the participant if they would like to be provided with access to mental health resources. Resources will include the Employee and Family Assistance Program for NSH employees and the Nova Scotia 24-hour Provincial Mental Health Crisis Line.
- The primary investigator will ask the participant if they would like a follow-up email or phone call to check in the following day.
- The primary investigator will ask the participant if there is anything else they could do to support them at this time.

Reporting

The primary investigator will immediately report any cases of distress to the supervisory team, provide an overview of the support provided to the participant and discuss whether any further intervention is required.