

EXPERIENCES OF MOTHERS OF NEONATES ADMITTED IN THE NEONATAL
INTENSIVE CARE UNIT (NICU) AT NYANGABGWE HOSPITAL, FRANCISTOWN,
BOTSWANA.

BY

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A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN
NEONATAL NURSING

THE UNIVERSITY OF ZAMBIA,

LUSAKA

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DECLARATION

I **Mose Phillime**, declare that this work being submitted in partial fulfilment of the requirement for the award of Master of Science in Neonatal Nursing at the University of Zambia is entirely a result of my effort. The various sources I am indebted to are clearly indicated in the text and references. I further declare that this work has neither fully nor in part been submitted for any other degree, examination nor to this or any other University or Institution.

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ACKNOWLEDGEMENTS

First and foremost, I extend my heartfelt gratitude to Almighty God for providing me with the strength, hope, and wisdom to persevere during my studies, especially during moments of weakness.

I owe a debt of appreciation to my dedicated supervisors, Prof. Catherine Ngoma and Ms Namayipo Nankamba, for their precious guidance, endless patience, and firm support throughout this academic journey and equipping me with the necessary research skills

I would like to acknowledge funding from Botswana government under Ministry of Health, training office. The content is solely the responsibility of the authors and does not necessarily represent the official views of any institution.

I am deeply grateful to the management of Nyangabgwe Hospital under Research committee for permitting me to conduct this study at their esteemed facility. Their cooperation was invaluable to the success of this research.

To my niece (Thatoyaone Tshoganetso Phillime) and my children (Tapiwa and Bushe), I extend my profound appreciation for your firm understanding, support, prayers, and constant words of encouragement. Their love and support have been my pillars throughout this journey.

DEDICATION

I dedicate this study to my beloved late parents, my niece and my children (Tapiwa and Bushe) who have been a constant source of motivation and encouragement throughout my academic journey. Their unmeasurable faith in my abilities and unending love have been a major driving force behind my pursuit of knowledge and the successful completion of this study.

Thank you for your prayers and countless words of encouragement that have propelled me forward during both challenging and rewarding moments of my education. This achievement is a testament to your support and firm belief in me.

ABSTRACT

Neonatal Intensive Care Units (NICUs) provide life-saving care for critically ill neonates. However, mothers of NICU-admitted neonates experience significant emotional, psychological, and logistical challenges. This study explores the experiences of mothers with neonates admitted in the NICU at Nyangabgwe Hospital, Francistown, Botswana, focusing on their challenges, coping mechanisms, and the influence of cultural and healthcare system factors. A descriptive phenomenological qualitative design was employed. Purposive sampling was used to recruit 11 mothers whose neonates had been admitted to the NICU for at least one week. Data were collected through semi-structured in-depth interviews and analysed using thematic analysis with NVivo software. Trustworthiness was ensured through credibility, dependability, confirmability, and transferability strategies. Three major themes emerged: Emotional and Psychological Impact – mothers experienced stress, anxiety, loneliness, guilt, and emotional resilience while developing coping mechanisms. Healthcare System Challenges – mothers faced resource constraints, inconsistent communication with healthcare providers, delayed responses, and a lack of counselling services. Cultural and Social Dynamics – cultural beliefs, family restrictions, and taboos influenced maternal perceptions and experiences in the NICU. The findings highlight the need for a more inclusive and family-centred approach in NICU care. Improving communication, psychological support, and culturally sensitive interventions can enhance maternal well-being and ultimately improve neonatal outcomes. Addressing the systemic gaps in healthcare delivery is crucial for ensuring a supportive environment for mothers in NICUs.

Keywords: Neonatal Intensive Care Unit, maternal experiences, emotional distress, coping mechanisms, healthcare challenges, cultural influence, Botswana.

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LIST OF ABBREVIATIONS

HRDC: Health Research and Development Committee

NICU: Neonatal Intensive Care Unit

NMR: Neonatal Mortality Rate

PTSD: Post Traumatic Stress Disorder

SCBU: Special Care Baby Unit

SDG: Sustainable Development Goal

UNICEF: United Nations International Children's Emergency Fund

UNZABREC: University of Zambia Biomedical Research Ethics Committee

USA: United States of America

UTH: University Teaching Hospitals

WHO: World Health Organisation

CHAPTER ONE

1.0 Introduction

The Neonatal Intensive Care Unit (NICU) plays a critical role in providing life-saving care to critically ill or premature neonates, yet the experiences of mothers in this setting are often overlooked. Mothers of NICU-admitted neonates face significant emotional, psychological, and logistical challenges as they navigate the difficulties of neonatal care. This study explored the lived experiences of mothers at Nyangabgwe Hospital in Francistown, Botswana, shedding light on their challenges, coping mechanisms, and the influence of cultural and healthcare system factors on their NICU journey.

This chapter introduces the study by providing an overview of the research topic, outlining the background and context, stating the problem, and the significance of the study. It also presents the research objectives, questions, and key terms, setting the stage for the subsequent chapters.

1.2 Background

The first month of life, known as the neonatal period, is a critical phase for newborns, particularly for those born prematurely or with medical complications. Globally, neonatal mortality remains a significant public health concern, with an estimated 2.3 million neonatal deaths occurring in 2022, accounting for approximately 47% of all under-five deaths (WHO, 2024). Sub-Saharan Africa bears the highest burden, with a neonatal mortality rate of 27 deaths per 1,000 live births in 2021, compared to the global average of 17 deaths per 1,000 live births (UNICEF, 2024). In Botswana, the neonatal mortality rate was reported at 18 deaths per 1,000 live births in 2021, reflecting progress but also highlighting the need for continued efforts to reduce preventable deaths (UNICEF, 2024).

Neonatal Intensive Care Units (NICUs) are essential for providing specialized care to critically ill or premature neonates. However, the NICU environment can be overwhelming for mothers, who often experience emotional distress, anxiety, and feelings of helplessness as they navigate the complexities of neonatal care. Studies have shown that mothers of NICU-admitted neonates face unique challenges, including prolonged separation from their infants, uncertainty about their neonates' prognosis, and difficulties in establishing early bonding (Wang et al., 2021; Al Maghaireh et al., 2021). These challenges are compounded by resource constraints, communication gaps, and cultural beliefs that influence maternal experiences in the NICU (Ncube et al., 2016; Chokwe & Wright, 2021).

In Botswana, the NICU at Nyangabgwe Hospital serves as a referral center for high-risk deliveries and critically ill neonates in the northern region. Despite its advanced medical technology and skilled healthcare professionals, the hospital faces challenges such as resource shortages, inconsistent communication, and limited support services for mothers (Nyangabgwe Hospital Annual Report, 2023). These systemic issues can exacerbate the emotional and psychological burden on mothers, who are already coping with the stress of having a critically ill newborn. For instance, a study by Ncube et al. (2016) conducted at Princess Marina Hospital in Botswana found that mothers of preterm infants often felt intimidated by the NICU environment, which delayed their ability to form emotional connections with their infants.

Cultural beliefs and practices further shape maternal experiences in the NICU. In Botswana, traditional expectations often place the mother as the primary caregiver, which can conflict with the clinical nature of NICU care. For example, restrictions on family visitation and the involvement of extended family members in neonatal care can lead to feelings of isolation and inadequacy among mothers (Chokwe & Wright, 2021). These cultural dynamics highlight the need for healthcare providers to adopt culturally sensitive approaches that respect and integrate traditional practices into neonatal care.

The emotional and psychological impact of NICU admission on mothers has been well-documented in recent studies. For example, a study by Al Maghaireh et al. (2021) found that mothers of NICU-admitted neonates experienced high levels of stress, anxiety, and symptoms of post-traumatic stress disorder (PTSD). Similarly, Wang et al. (2021) reported that mothers often struggled with feelings of guilt and inadequacy, particularly when they were unable to meet societal expectations of caregiving. These findings underscore the importance of providing emotional and psychological support to mothers in the NICU, as their well-being is closely linked to the outcomes of their neonates.

The NICU experience is a challenging journey for mothers, shaped by emotional, systemic, and cultural factors. While significant progress has been made in reducing neonatal mortality, there is a need to address the unique challenges faced by mothers in NICUs in low-resource settings like Botswana. By exploring the experiences of mothers at Nyangabgwe Hospital, this study aimed to contribute to a deeper understanding of their needs and inform interventions that enhance maternal and neonatal outcomes.

1.3 Statement of problem

The NICU at Nyangabgwe Hospital play a critical role in providing life-saving care to critically ill and premature neonates. However, the high neonatal mortality rates at the facility, which stood at 21.1% in 2022 and 15.9% in 2023, remain significantly above the WHO target of 12% (Nyangabgwe Hospital NICU Reports, 2022-2023). These statistics highlight the urgent need to address factors contributing to poor neonatal outcomes, including the experiences and challenges faced by mothers of NICU-admitted neonates. Mothers in the NICU face significant emotional, psychological, and logistical challenges, including prolonged separation from their infants, limited access to information about their neonates' care plans, and restricted visitation policies. These challenges are exacerbated by inadequate support from healthcare workers and family members, often due to staffing shortages, strict standard operating procedures, and cultural influences (Ncube et al., 2016; Chokwe & Wright, 2021). For example, in the Setswana culture, mothers are traditionally viewed as the primary caregivers, yet they are often excluded from active participation in their neonates' care in the NICU, leading to feelings of isolation and inadequacy (Ncube et al., 2016).

Furthermore, the logistical demands of NICU visits, such as traveling long distances and managing childcare for other siblings, add to the stress experienced by mothers (Lindberg et al., 2019). These challenges not only affect maternal mental health and well-being but also hinder the development of maternal-infant bonding, which is critical for neonatal outcomes (Wang et al., 2021). Despite the growing body of research on maternal experiences in NICUs globally, there was limited evidence from Botswana, particularly in the context of Nyangabgwe Hospital. This study addressed this gap by exploring the experiences of mothers whose neonates were admitted to the NICU at Nyangabgwe Hospital. By understanding their challenges, coping mechanisms, and the influence of cultural and healthcare system factors, the study aimed to inform targeted interventions that could improve maternal well-being and neonatal outcomes. Addressing these issues was essential for reducing neonatal mortality rates and ensuring that mothers received the support they needed during this critical period.

1.4 Justification

Despite the critical role of NICUs in saving the lives of critically ill and premature neonates, the emotional, psychological, and logistical challenges faced by mothers in this setting were often overlooked. Therefore, this study was necessary because maternal well-being is closely linked to neonatal outcomes, and addressing the challenges faced by mothers could contribute to reducing the high neonatal mortality rates at Nyangabgwe Hospital, which stood at 21.1%

in 2022 and 15.9% in 2023, well above the WHO target of 12% (Nyangabgwe Hospital NICU Reports, 2022-2023).

The study was particularly relevant in the context of Botswana, where cultural beliefs and practices significantly influence maternal experiences in the NICU. For example, in the Setswana culture, mothers are traditionally viewed as the primary caregivers, yet they often faced restrictions in accessing and participating in their neonates' care in the NICU (Ncube et al., 2016). This cultural dynamic, combined with systemic challenges such as resource constraints and inconsistent communication from healthcare providers, created additional stress for mothers, further compromising their ability to cope and bond with their infants (Chokwe & Wright, 2021).

By exploring the lived experiences of mothers in the NICU, the study provided valuable insights into their unique challenges, coping mechanisms, and the influence of cultural and healthcare system factors. These findings were essential for informing targeted interventions, such as improved communication protocols, structured counselling services, and culturally sensitive care practices, which could enhance maternal well-being and neonatal outcomes. Furthermore, the study contributed to the limited body of research on maternal experiences in NICUs in low-resource settings like Botswana, providing a foundation for future studies and policy development.

1.5 Objectives of the study

1.5.1 General Objective

To explore the experiences of mothers whose neonates are admitted in the NICU at Nyangabgwe Hospital in Francistown, Botswana.

5.1.2 Specific Objectives

1. To identify challenges faced by mothers of NICU admitted neonates.
2. To explore mothers' views on support provided in NICU.
3. To explore mother's views on cultural influence in the NICU.
- 4.

1.5 Research Questions

1. What are the challenges mothers face while admitted with their sick neonates in the NICU?
2. What support is provided to mothers of sick neonates in the NICU?
3. How does culture contribute to NICU care/ NICU environment?

1.6 Definition of Key Terms

Term	Conceptual Definition	Operational Definition
NICU	A specialized medical facility that provides intensive care for critically ill or premature newborns (Vance et al.,2021)	In this study, NICU refers to the Neonatal Intensive Care Unit at Nyangabgwe Hospital, Francistown, Botswana.
Neonate	A newborn infant within the first 28 days of life, often requiring specialized care due to medical conditions (Vance et al.,2021)	In this study, a neonate refers to a baby admitted to the NICU at Nyangabgwe Hospital for at least one week.
Mothers	Female parents of neonates, primarily responsible for caregiving and nurturing their infants (Fortney et al.,2020)	In this study, mothers refer to women whose neonates were admitted to the NICU at Nyangabgwe Hospital.
Experiences	The personal encounters, perceptions, and emotions individuals undergo in specific situations (Caporali et al., 2020)	In this study, experiences refer to the emotional, psychological, and logistical challenges faced by mothers in the NICU.
Emotional Distress	A state of emotional suffering characterized by feelings of anxiety, stress, and helplessness (Sih et al., 2019)	In this study, emotional distress refers to the anxiety, guilt, and loneliness reported by mothers during their NICU stay.
Coping Mechanisms	Strategies or behaviors individuals use to manage stress and adapt to	In this study, coping mechanisms refer to the methods mothers used to

	challenging situations (Sih et al., 2019)	manage stress, such as seeking support or relying on faith.
Cultural Influence	The impact of shared beliefs, values, and practices on individuals' behaviors and perceptions (Chokwe & Wright, 2021)	In this study, cultural influence refers to how Setswana traditions and beliefs shaped mothers' experiences in the NICU.
Support Systems	Resources, individuals, or groups that provide assistance, encouragement, or guidance to individuals (Negarandeh et al., 2021)	In this study, support systems refer to family members, healthcare providers, or peer groups that helped mothers cope in the NICU.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents a review of the literature on the experiences of mothers of neonates admitted to the Neonatal Intensive Care Unit (NICU), with a focus on the Botswana context. The review synthesizes existing knowledge from international and local studies, drawing on publications sourced from databases such as Google Scholar, HINARI, and PubMed. By examining the emotional, psychological, and cultural dimensions of maternal experiences in NICUs, this chapter aims to identify key themes and gaps in the literature, providing a foundation for understanding the challenges faced by mothers at Nyangabgwe Hospital.

2.1 NICU Experiences Globally

Exploring the international landscape of NICU experiences is essential to contextualize the challenges faced by mothers worldwide. Studies across various countries have consistently highlighted common themes such as stress, anxiety, and the need for effective communication between healthcare professionals and parents. For instance, Caporali et al. (2020) conducted a multi-country meta-analytic study titled “A Global Perspective on Parental Stress in the Neonatal Intensive Care Unit,” which analyzed data from 53 studies. The study found that parental stress related to NICU admission is a global health issue, with mothers and fathers experiencing high levels of emotional distress due to the uncertainty of their infants’ conditions and the intimidating NICU environment. The authors emphasized the need for immediate and tailored support for parents to reduce stress and promote emotional well-being. However, a notable gap in the study was the lack of exploration into how cultural and socioeconomic factors influence parental stress, which could vary significantly across different countries and contexts.

In the United States, Vance et al. (2021) conducted a descriptive qualitative study which explored the impact of COVID-19 on NICU experiences. The study collected free-text responses from parents and used a reflexive thematic approach to analyze the data. Findings revealed that pandemic-related policy changes, such as restricted parental presence in the NICU, exacerbated feelings of isolation and emotional distress among parents. The study also highlighted the critical role of NICU providers in either alleviating or intensifying parental stress through their communication and support. While this study provided valuable insights into the pandemic’s impact on NICU experiences, it focused on both mothers and fathers, leaving a gap in understanding the unique experiences of mothers individually.

This gap underscores the need for research that specifically examines maternal experiences, as mothers often bear the primary emotional and caregiving burden in many cultural contexts.

Similarly, in Ireland, Leahy-Warren et al. (2020) explored the experiences of mothers with preterm infants within the first year post-discharge from the NICU. Using a correlational cross-sectional design, the study collected data through a four-part online survey. The findings revealed that mothers who had a prior history of depression, poor infant attachment, or inadequate emotional and social support were more likely to experience higher levels of depressive symptoms. While this study provided important insights into the long-term psychological impact of NICU admission on mothers, it was limited to mothers of preterm infants, excluding those with term or post-term neonates. This limitation highlights the need for broader research that includes all mothers in the NICU, regardless of their infants' gestational age, to gain a more comprehensive understanding of maternal experiences.

These studies demonstrate that maternal stress and emotional distress are universal challenges in NICUs worldwide, influenced by factors such as communication with healthcare providers, social support, and policy restrictions. However, gaps remain in understanding how cultural and socioeconomic factors shape these experiences, as well as the need for more focused research on mothers individually. By addressing these gaps, future studies can provide a more nuanced understanding of maternal experiences in NICUs and inform targeted interventions to support mothers globally.

2.2 Regional Variances in NICU Experiences

As the focus narrows to the experiences of mothers with NICU-admitted neonates in specific regions, including Botswana, unique challenges and strengths emerge. Limited research exists on the Botswana context, necessitating an examination of regional variances and their impact on maternal perceptions. For instance, in Uganda, Namusoke et al. (2021) conducted a qualitative study titled "What Are You Carrying? Experiences of Mothers with Preterm Babies in a Low-Resource Setting Neonatal Intensive Care Unit." The study involved 16 in-depth interviews and 35 focus group discussions with mothers caring for preterm babies at Mulago National Referral Hospital. The findings revealed constant worry and uncertainty about infant survival, challenges with feeding, concerns about discharge, communication gaps between mothers and nurses, and financial difficulties. However, the study was limited to mothers of preterm infants, leaving a gap in understanding the experiences of mothers with term or post-term neonates.

Similarly, in Ghana, Lomotey et al. (2020) explored the experiences of mothers with preterm babies in a tertiary hospital's Mother and Baby Unit. Using a descriptive phenomenological design, the study conducted in-depth interviews with 10 mothers. The findings highlighted maternal anxiety about premature delivery and fear of infant mortality, while also noting the positive impact of kangaroo mother care and breastfeeding on maternal-infant bonding. However, mothers expressed concerns about inadequate accommodation, high costs of care, and limited mother-baby interactions. Like the Ugandan study, this research focused exclusively on mothers of preterm infants, leaving room for further exploration of mothers with other neonatal conditions.

In Zambia, Masumo (2021) investigated maternal stress in the NICU through a mixed-methods study. The study found that 93.6% of mothers reported high stress levels due to factors such as infant appearance, behavior, and the maternal-infant relationship. Breastfeeding was associated with a 52% reduction in maternal stress, while prolonged NICU stays increased stress regardless of the infant's gestational age. The qualitative component identified key stressors, including the NICU environment, standard operating procedures, staff behavior, and communication. However, the study was conducted in Lusaka, a densely populated area where resource demand often exceeds supply, limiting the generalizability of the findings to other settings.

In Botswana, Ncube et al. (2016) conducted a qualitative study which revealed that mothers were often shocked by the sudden birth of a preterm infant and found the NICU environment intimidating, which increased their fear and anxiety and delayed the development of a maternal-infant bond. However, this study was conducted at Princess Marina Hospital in southern Botswana, leaving a gap in understanding the experiences of mothers in other regions, such as northern Botswana, where cultural influences may differ. Additionally, the study focused solely on mothers of preterm infants, highlighting the need for research that includes mothers of term and post-term neonates.

In summary, these regional studies highlight the unique challenges faced by mothers in NICUs across different contexts, including financial constraints, communication gaps, and cultural influences. However, gaps remain in understanding the experiences of mothers with term and post-term neonates, as well as the impact of regional and cultural variations on maternal perceptions. Addressing these gaps is essential for developing context-specific interventions that support mothers in NICUs across diverse settings.

2.3 Psychological Impact on Mothers

The psychological toll on mothers with NICU-admitted neonates is a recurrent theme in the literature. Studies consistently report elevated stress levels, anxiety, and symptoms of post-traumatic stress disorder (PTSD) among mothers in NICU settings. This section delves into the emotional roller-coaster experienced by mothers, examining the long-term effects on their mental health and the potential influence on the parent-child bond.

In the United States, Fortney et al. (2020) conducted a qualitative study and revealed that parents formed their perceptions of infant suffering based on signs exhibited by their infants and information provided by the healthcare team. These perceptions influenced the decisions parents made regarding their infants' care. However, the study focused on bereaved parents, leaving a gap in understanding the psychological impact on mothers whose infants survive NICU admission.

In contrast, Ouedraogo et al. (2019) investigated the psychological impact on parents in Burkina Faso, involving 60 participants. The study found that parents exhibited symptoms of PTSD, emphasizing the need for personalized psychological support. While this study provided valuable insights into the psychological challenges faced by parents, it did not specifically focus on mothers, leaving room for further research on maternal experiences.

In Colombia, Messa et al. (2021) conducted a cross-sectional study titled "*Psychological Stress in Mothers of Neonates Admitted to an Intensive Care Unit.*" The study involved 47 mothers whose infants had been admitted to the NICU within the last 72 hours. Using bivariate correlations and multivariate linear models, the study found that maternal stress was associated with feelings of loneliness and the presence of at least one psychiatric diagnosis, such as depressive episodes, generalized anxiety disorder, or acute stress disorder. A notable limitation of this study was its focus on mothers whose infants were recently admitted, leaving a gap in understanding the long-term psychological impact on mothers with longer NICU stays.

These studies highlight the significant psychological burden faced by mothers in NICUs, including stress, anxiety, and PTSD. However, gaps remain in understanding the long-term effects of NICU admission on maternal mental health and the specific experiences of mothers whose infants survive. Addressing these gaps is essential for developing targeted interventions to support maternal well-being in NICUs.

2.4 Communication and Support Mechanisms

Effective communication between healthcare providers and mothers is paramount in the NICU setting. Studies have explored the impact of communication styles on maternal stress levels and the overall NICU experience. Additionally, the review examines existing support mechanisms, such as peer support groups and counselling services, shedding light on their effectiveness in mitigating the psychological burden on mothers during this challenging period. Negarandeh et al. (2021) in Iran ran a study “Health care staff support for mothers in NICU: a focused ethnography study” utilizing focused ethnography to reveal “insufficient provision of the mothers’ support needs” (sub-themes: inadequate accompany of the mothers in care, assigning monitoring and care to the mothers, inadequate sharing of medical the information) and “supporting the mothers in certain circumstances” (sub-themes: reassuring the mothers, supporting the mothers with reduced functional capacity, providing information), reflecting a half done half not done kind of picture, in a nutshell he mothers experienced a gap between expected and actual support provided by health care staff. Contrary to the above study, Kynoe et al. (2020) employed a qualitative study design to illuminate that interpreters were present during the consultations with the physicians, but rarely during the daily nurse-mother interactions, the mothers learned through demonstrations and hands-on guidance. Also, language barriers made it difficult to assess the mothers' understanding, but the mothers expressed that they felt adequately included in the care of their infant and well informed and guided. Even so, both mothers and nurses expressed desire to use interpreters more regularly. However, the pictorial communication boards available lacked important vocabulary needed in neonatal nursing contexts and their use furthermore interrupted the mother–nurse conversation. Most importantly, the nurses adopted various communication strategies to help the mothers understand and give them a voice.

2.5 Cultural Perspectives on NICU Care

The cultural context significantly shapes the experiences of mothers with NICU-admitted neonates. In Botswana, cultural beliefs and practices may influence decision-making, coping strategies, and expectations regarding neonatal care. Chokwe & Wright (2021) acceded that limited healthcare resources, cultural beliefs, and social support systems play a significant role in influencing maternal experiences in Botswana. This section critically examines the interplay between culture and the NICU experience, emphasizing the need for culturally sensitive approaches to healthcare delivery. In Finland and USA, Holdren et al. (2019) conducted a study “A qualitative cross-cultural analysis of NICU care culture and infant feeding in Finland and

the U.S.A.” adopting a qualitative, cross-sectional study that utilized narrative methodologies to understand the lived experiences of 15 families hospitalized in a tertiary neonatal intensive care unit in Finland and the U. S.A with findings that in the unit in Finland, breastfeeding was one method to achieve closeness with an infant, while in the unit in the U.S., pumping was only an end to promote infant nutritional health. Therefore, breastfeeding coupled with closeness was found to be supportive of a salutogenic, or health-promoting, care approach for the whole family. In contrast, Nyaloko et al. (2023) delved in to the topic “Exploring cultural determinants to be integrated into preterm infant care in the neonatal intensive care unit” employing an interrogative literature review and their findings indicated that parental cultural beliefs and practices mostly influenced infant-rearing practices, emphasizing the significance of integrating cultural practices when rendering healthcare services. They recommended that healthcare professionals need to understand various cultural determinants, mainly those specific to the community they serve, to provide culturally sensitive care.

2.6 Challenges and Coping Strategies

The multifaceted challenges faced by mothers in the NICU setting necessitate a closer examination of coping strategies employed. From the initial shock of a premature birth to navigating the complex medical information provided by healthcare professionals, mothers employ diverse coping mechanisms. This section of the literature review explores the array of challenges faced by NICU mothers and the coping strategies identified in the existing body of research.

The NICU experience is a challenging and emotionally charged journey for both infants and their families. In particular, the perspective of mothers plays a crucial role in understanding the intricate dynamics and nuanced aspects of care within this context. This literature review aims to synthesize existing research on the insights gained through the eyes of mothers with NICU-admitted neonates. Focusing on the emotional, psychological, and practical dimensions of their experiences, this review seeks to contribute to a comprehensive understanding of the challenges and coping mechanisms prevalent in NICU settings. In South Africa, Sih et al. (2019) explored on a study on topic “Coping strategies of mothers with preterm babies admitted in a public hospital in Cape Town” utilizing qualitative research approach applying an exploratory and descriptive design main themes that emerged from data analysis included praying, attachment with baby and acceptance of the situation. Under praying the following sub-themes emerged, namely praying for God’s strength, God’s grace, babies’ survival and thanksgiving to God for babies’ health and preferred gender. The theme of attachment with the baby emerged with the

following sub-themes: bonding with the baby and seeing the baby. The last theme that was acceptance of the situation emerged with the following sub-theme: perseverance in the situation and mother's awareness of her responsibility. On a different note, Mahwasane et al. (2023) conducted a qualitative study in South Africa and their findings revealed that parents need informational, instrumental direct supervision, and psycho-cultural and emotional support during preparation for discharge. Also, Ncube et al. (2016) affirmed with a study conducted in Botswana and among their findings is that support from staff, other mothers in the neonatal unit and family members enabled the mothers to overcome their fear and to develop an emotional connection with their infants. Therefore, on-going supportive communication with the mothers by healthcare professionals promotes their confidence and competence in caring for their preterm infants, which in turn promotes mother-infant attachment.

2.7 Conclusion

This literature review provides a comprehensive synthesis of existing research on the experiences of mothers of neonates admitted in NICU. From the global context to regional variances, psychological impacts, communication dynamics, cultural influences, and coping strategies, the review highlights the complex and multifaceted nature of the NICU experience. Recognizing the gaps in current knowledge, particularly in the Botswana context, underscores the need for further research to inform targeted interventions and support mechanisms for mothers navigating the challenging journey of NICU care in Nyangabgwe Hospital.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

In this chapter the researcher will delve into fine details of the procedures and methods that will be utilised in conducting the study. This qualitative phenomenological study aims to understand and elucidate the lived experiences of mothers whose neonates are admitted to the NICU at Nyangabgwe Hospital in Francistown, Botswana. This approach will be particularly relevant for examining the complex and often distressing experiences of mothers in the NICU setting, as it will seek to capture the essence of their lived reality through their own narratives (Van Manen, 2021).

3.2 Study Design

The study employed a descriptive phenomenological design, which focused on describing the experiences of individuals as they perceive them, free from any preconceived notions or theoretical biases (Giorgi, 2021; Shrestha et al. 2020). Phenomenology is a powerful research methodology that allows for a deep exploration of participants' personal experiences and perceptions, providing rich insights into their emotional and psychological journeys (Smith, Flowers & Larkin, 2022).

3.3 Study Setting

Nyangabgwe hospital, SCBU, Francistown, Botswana. The hospital is affiliated to the Ministry of Health, with a level 3 NICU, admits inborn and out born neonates with medical, congenital and minor surgical diseases, equipped with 10 dragger mechanical ventilators, an official bed capacity of 28. It is a four-cubicle unit comprising of High care, NICU, high care step down cubicle and a growers & feeders' cubicle. Staffing was 3 paediatricians, 4 medical officers inclusive of 1 medical officer intern, 22 general nurses and 5 health care auxiliaries (NB: staffing is approximate as numbers may vary according to workload/ demand, especially with doctors). Neonatal care provided amongst others in this unit includes supplemental oxygen and mechanical ventilator support, cardio-respiratory monitoring, enteral and parenteral nutrition, thermoregulation, phototherapy, neurodevelopmental care & support and fluid & electrolyte supplementation.

3.4 Study Population

The study population consisted of Mothers of sick neonates admitted to NICU: This ensured that the study focuses on mothers directly affected by the NICU experience.

3.4.2 Inclusion Criteria

Mothers of sick neonates admitted at Nyangabgwe Hospital NICU for a period not less than one week: a hospitalization stay of more than one week was deemed adequate as it is easier for mothers to share their NICU experiences due to more time and chance for various encounters

Willingness to Participate: mothers must voluntarily express their willingness to participate in the study by consenting, ensuring adherence to ethical research practices.

3.4.3 Exclusion Criteria

Mothers with neonates at end-of-life stage: as these mothers were likely to have severe psychological or emotional distress which could compromise their ability to participate effectively or be detrimental to their well-being.

Inability to Communicate: participants who lacked the capacity to communicate their experiences effectively, such as individuals with severe mental impairments, were excluded to ensure data quality and understanding.

3.5 Sampling Method

To obtain a representative sample of mothers of sick neonates in the NICU at Nyangabgwe Hospital, purposive sampling method was employed. For instance, mothers of sick neonates requiring NICU care were the primary focus. Palinken et al. (2021); Rahimi (2021); Shrestha et al. (2020) acceded to this in his study as they selected purposive sampling method. The reason for purposive sampling was the better matching of the sample to the aims and objectives of the research, thus improving the rigour of the study and trustworthiness of the data and results (Campbell et al. 2020).

3.6 Sample Size

The sample size for this study depended on various factors, including the research objectives and available resources, data saturation was also considered. A sample size of 6 to 12 participants was considered for this particular research. Rahimi (2021) affirmed the above considerations as in his study 12 participants were selected by purposive sampling method.

Shrestha et al (2020) also acceded as they purposively selected 13 mothers of NICU admitted preterm infants at Tribhuvan University, Teaching Hospital in conducting their study. Young & Cassey (2019) considered data saturation to be achieved when no new ideas emerged with three additional interviews.

3.7 Trustworthiness

The aim of investigating the trustworthiness of this qualitative research was to ensure that the study expresses the experiences of the participants exactly as they will be relayed. The Lincoln and Guba's 1985 trustworthiness criteria was applied to ensure the rigour of the study. This comprised of assuring that the study adheres to credibility, transferability, dependability, and conformability.

3.7.1 Credibility

Credibility means that the data collected is accurate or representative of the phenomenon under study (Applied Doctoral Centre, 2024). Prolonged engagement with the data was executed and instituting a virtuous rapport that enhanced trust with participants. A semi-structured interview that was steered by interview questions along with constant observations to be utilized to obtain in-depth data. Several sources of information, peer reviewed journals, books and search sites were consulted, and utilized as a form of guidance.

3.7.2 Transferability

To enhance the study's transferability, the research design, data collection, and analysis processes as well as time frame of the study were clearly outlined, and a clear and detailed audit trail that can provide a guide for conducting further related studies by other researchers was also executed.

3.7.3 Dependability

Peer debriefing and listening to the audio recordings of the interviews was done. Both verbal and non-verbal data was verbatim transcribed and saved properly in order to cross check the whole process of the study and maintain the consistency of the interpretation. Furthermore, to reduce preconceived personal bias, the whole process of the research, data collection, data analysis, and reporting of the findings was done clearly using scientific procedures.

3.7.4 Confirmability:

Confirmability of qualitative data was assured when data was checked and rechecked throughout data collection and analysis, to guard against the possibility of the results being replicated by others. This was guaranteed by clear coding schema that identified the codes and patterns identified in analyses (Dissertation Centre, 2024).

3.8 Data Collection Technique

Data for this study was collected through in-depth, semi-structured interviews, a qualitative method that allows participants to express their experiences in their own words and provides flexibility to explore emerging themes (Jamshed, 2021). The semi-structured format ensured that key topics related to the research objectives were covered while allowing participants to elaborate on their responses. Each interview was conducted in a quiet and private room within the NICU at Nyangabgwe Hospital to ensure confidentiality and minimize distractions.

The interviews were conducted in a sensitive and empathetic manner, with the researcher encouraging participants to openly share their experiences. Participants were informed that they could pause or stop the interview at any time if they felt overwhelmed, ensuring their comfort and autonomy throughout the process. Each interview lasted between 30 to 45 minutes, providing sufficient time for participants to share detailed accounts of their experiences. All interviews were audio-recorded to ensure accurate capture of participants' responses. The recordings were later transcribed verbatim, and the transcriptions were carefully reviewed for accuracy by comparing them with the audio recordings. This process ensured that the participants' experiences were accurately represented in the data. Data collection continued until saturation was achieved, meaning no new themes or insights emerged from three consecutive interviews. This approach ensured that the data was comprehensive and reflective of the participants' experiences.

3.9 Data Management and Storage

The data collected in this study, including audio recordings, interview transcripts, and field notes, were managed and stored securely to ensure confidentiality and integrity. Digital data were stored on a password-protected computer and backed up on an encrypted external hard drive, with additional copies saved on a secure cloud storage platform. Physical documents, such as printed transcripts and consent forms, were kept in a locked cabinet accessible only to the researcher. All data were anonymized, with participants identified only by unique codes to protect their identities. In compliance with the University of Zambia's policies, the data will

be retained for two years, after which digital files will be permanently deleted, and physical documents will be securely destroyed through shredding or incineration. Access to the data was restricted to the researcher and authorized personnel, ensuring the privacy and security of participants' information throughout the study.

3.10 Ethical Considerations

The study was conducted in adherence to the Helsinki Declaration 1964.

3.10.1 Ethics Committee Approval

Before initiating the study, ethical approval from the relevant institutional review board or ethics committees namely: National Health Research Authority (Zambia), University of Zambia Biomedical Research Ethics Committee (UNZABREC) Ref no. 5516-2024, Botswana Ministry of Health Research and Development Committee, Nyangabgwe Hospital Matron's office via Nyangabgwe Hospital Research Committee was requested and patient consent was highly adhered to. The research protocol, including the study design, informed consent forms, data collection instruments, and recruitment procedures, were submitted for review. The researcher addressed any concerns raised by the ethics committee and any necessary amendments were made to the study design to ensure compliance with ethical guidelines as per committee specifications.

3.10.2 Informed Consent

Informed consent was of utmost importance in this study. It was ensured that all participants fully understand the purpose, procedures, potential benefits, and risks involved in the study. Consent forms were provided in a language understood by the participants and clearly stated that participation was voluntary. Any questions or concerns the participants had been addressed and allowed sufficient time for them to make an informed decision. Mothers were also made aware of their right to withdraw from the study at any time point.

3.10.3 Confidentiality and Anonymity

Protecting the privacy and confidentiality of participants was crucial. It was ensured that all data collected during the study was treated with the strictest confidentiality. Personal identifiers were removed or anonymized to prevent the disclosure of participants' identities. All data was

stored securely and accessible only to authorized personnel. Interviews were conducted in an isolated private room safe from disturbances and conducive for the participants, also protecting their confidentiality and privacy.

3.10.4 Beneficence and Non-maleficence

The welfare and safety of the participants was the primary concern. It was ensured that the study does not cause harm to the participants physically, psychologically, or emotionally. Participants were provided with access to support services and counselling throughout the study and beyond where necessary. The participants were monitored closely for any signs of distress and there were plans in place to address any adverse events promptly.

3.10.5 Fair Selection and Equity

The selection of participants was fair and equitable, ensuring that all eligible individuals have an equal opportunity to participate in the study. Cultural, social, and economic factors that may have influence in participation were taken into account. It was essential to avoid any form of coercion or exploitation and to promote inclusivity and diversity in the participant pool.

3.10.6 Respect for Autonomy

Respecting the autonomy and rights of the participants was very essential. It was ensured that the participants have the freedom to make decisions about their involvement in the study without any undue influence. The participants were fully informed about their rights to withdraw from the study at any time without facing negative consequences.

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.0 Introduction

This chapter presents the findings of the study where the aim was to explore the experiences of mothers whose neonates are admitted in the Neonatal Intensive Care Unit (NICU) at Nyangabgwe Hospital, Francistown, Botswana. The data was collected through semi-structured interviews with 11 participants. Saturation was achieved at the 10th interview, but an additional participant was included to confirm no new information emerged.

4.2 Presentation of findings

The findings are presented in two sections: the demographic characteristics of the participants and the emergent themes, subthemes, and codes derived from thematic analysis.

4.2.1 Demographic Characteristics

The demographic characteristics of the 11 participants are summarized in Table 1. These characteristics provide rich information to the experiences shared by the mothers and highlight the diversity within the study sample. Data saturation was reached after 10 interviews, with no new themes emerging. However, one more participant was included to ensure the robustness of the findings.

Table 1: Demographic Characteristics (n=11)

Participant ID	Age (Years)	Marital Status	Parity	Employment Status	Distance to NICU (km)	Educational Level
001	28	Married	2	Employed	25	Tertiary
002	33	Single	1	Unemployed	50	Secondary
003	24	Married	1	Employed	5	Tertiary
004	31	Divorced	3	Self-Employed	15	Primary
005	29	Married	2	Employed	30	Tertiary
006	26	Single	1	Unemployed	10	Secondary
007	34	Married	4	Unemployed	20	Secondary
008	27	Married	2	Employed	8	Tertiary
009	30	Single	1	Employed	40	Secondary
010	35	Married	3	Self-Employed	12	Primary
011	32	Widowed	2	Unemployed	18	Secondary

The participants' ages ranged from 24 to 35 years, with the majority married and multigravida. Employment status varied, with a significant proportion being unemployed, while educational levels ranged from primary to tertiary.

4.2.2 Emergent Themes, Subthemes, and Codes

The thematic analysis yielded three major themes, each with associated subthemes and codes. These themes reflect the lived experiences of mothers during their NICU journey.

Table 2: Themes, Subthemes, and Codes

Theme	Subthemes	Codes
Emotional and Psychological Impact	<ul style="list-style-type: none"> - Stress and Anxiety - Blame 	<ul style="list-style-type: none"> - Fear of prognosis - Loneliness - Emotional resilience - Seeking support - Guilt
Healthcare System Challenges	<ul style="list-style-type: none"> - Resource Constraints - Communication Gaps 	<ul style="list-style-type: none"> - Shortage of equipment - Inconsistent staff attitude - Lack of counselling - Miscommunication - Delayed responses
Cultural and Social Dynamics	<ul style="list-style-type: none"> - Cultural Sensitivities - Family Support 	<ul style="list-style-type: none"> - Taboos and beliefs - Family restrictions - Social isolation - Role of extended family - Influence of cultural norms

Theme 1: Emotional and Psychological Impact

The first theme, Emotional and Psychological Impact, summarizes the deep mental and emotional experiences faced by mothers during their time in the NICU. The NICU environment, characterized by medical uncertainties and prolonged separations from their neonates, contributed to feelings of stress, anxiety, guilt, and a need for emotional resilience. The emotional journey of the mothers was multidimensional, reflecting their struggles and the mechanisms they employed to cross this challenging period.

Stress and Anxiety

Stress and anxiety were recurring emotions experienced by the participants, primarily due to the uncertainty of their neonates’ survival and the intimidating medical environment. Mothers

frequently expressed apprehension about their babies' prognoses, compounded by the constant beeping of machines and the sight of their fragile neonates connected to medical devices.

P2 narrated, *"When I was told my baby was on the ventilator, I could not sleep. I would wake up every hour, wondering if my baby was still breathing."*

P5 highlighted, *"Every time I went for feeding, I would panic, thinking I might find my baby's condition worse. It was exhausting emotionally."*

P7 stated, *"Hearing alarms going off constantly made me feel like something bad was happening to my baby, even when it wasn't."*

These accounts reveal the ongoing psychological toll, as mothers dealt with an environment where every moment seemed to hold potential bad news. The stress was often magnified by the lack of regular updates from healthcare providers, leaving mothers feeling helpless and uncertain.

Loneliness

Mothers frequently expressed feelings of loneliness due to limited social interactions and isolation in the NICU setting. The separation from their families and the structured visiting hours made them feel unsupported. Some participants went on to say:

P3 stated, *"I felt so alone. There were days I would sit in the corner of the ward, crying silently because I had no one to talk to."*

P8 explained, *"Even when other mothers were around, it was hard to connect because everyone was consumed with their own worries."*

P6 narrated, *"The ward felt so cold and isolating. I missed the comfort of my home and family."*

The lack of peer support or organized counselling for mothers in the NICU worsened the loneliness. Participants expressed a need for spaces to share experiences and derive strength from one another.

Emotional Resilience

Despite the challenges, mothers displayed remarkable emotional resilience, employing various coping mechanisms to endure their NICU journey. Many turned to spirituality, self-motivation, and optimism as sources of strength. Below are some extracts from participants:

P4 highlighted, *“I kept praying every day, telling myself that my baby would come out stronger. Faith kept me going.”*

P9 explained, *“I had to remind myself that if I broke down, it would affect my baby. So, I tried to stay strong.”*

P10 narrated, *“Talking to my family over the phone helped me gather strength. Their encouragement reminded me I wasn’t alone in this.”*

These narratives show the resilience mothers exhibited, even in the face of overwhelming odds. They often created mental strategies to stay positive and ensure they could care for their babies effectively.

Seeking Support

Many participants emphasized the importance of seeking emotional and social support from family, healthcare workers, or religious groups. Support played an important role in alleviating the stress and providing comfort during difficult times. Many people said:

P1 stated, *“Whenever my husband called, he would remind me that we’re in this together, and that gave me strength to keep going.”*

P7 explained, *“The chaplain who visited the hospital was like a lifeline. She would talk to me and pray with me, which gave me so much peace.”*

P2 narrated, *“I realized that sharing my fears with the nurse helped me cope better. Sometimes, all I needed was someone to listen.”*

These experiences stress the critical role of emotional and practical support in helping mothers manage their stress and anxiety. While some received support, others highlighted its absence and expressed the need for more structured interventions.

Guilt

Guilt emerged as a significant emotional burden for many mothers, especially when they were unable to meet breastfeeding demands or felt they were not doing enough for their babies. The societal and cultural expectations around mothering further heightened this sense of inadequacy.

P11 stated, *“I felt like I failed my baby when I couldn’t produce enough milk. It’s something every mother should do, and I just couldn’t.”*

P2 explained, *“When my baby’s weight dropped, I kept blaming myself, thinking I wasn’t doing something right.”*

P3 highlighted, *“Seeing my baby sick and helpless made me feel guilty, like I could have done something to prevent it.”*

These feelings of guilt were further worsened by a lack of understanding and empathy from some healthcare providers, who were perceived as judgmental rather than supportive. This reinforced the mothers' struggles and created additional emotional barriers.

Theme 2: Healthcare System Challenges

The second theme, Healthcare System Challenges, highlights the structural and systemic barriers mothers encountered while their neonates were admitted to the NICU. These challenges included resource constraints, communication gaps, inconsistent staff attitudes, and delays in response to urgent needs. The findings stress the critical role of the healthcare system in shaping mothers' NICU experiences, often exacerbating their emotional and psychological struggles.

Resource Constraints

Resource shortages were a recurring issue in the NICU, impacting both the quality of care and the experiences of mothers. Participants frequently mentioned a lack of essential medical equipment, inadequate accommodation, and insufficient supplies for neonates. Below are some extracts:

P1 narrated, *“One time, the feeding tube for my baby was blocked, and I was told there were no replacements available. I had to hold the baby in an awkward position for an hour until they found a solution.”*

P6 said, *“The oxygen masks they used for babies were adult-sized. Watching them try to make it work for such tiny faces was heartbreaking.”*

P10 stated, *“The mothers' residential area was like a forgotten place. There were no mattresses on some beds, and the food was not fit for nursing mothers.”*

These accounts reveal the tangible impact of resource constraints on both mothers and their neonates. The lack of appropriate equipment and facilities added to the emotional and physical toll on mothers, who were already under significant stress.

Communication Gaps

Effective communication between healthcare providers and mothers was often lacking, leading to misunderstandings and increased anxiety. Participants described instances where critical information about their neonates' conditions or care plans was not communicated clearly or in a timely manner. Some participants explained:

P3 explained, *“I had to ask repeatedly to understand what was going on with my baby. Sometimes, I felt like I was bothering the nurses, but I needed to know.”*

P2 said, *“One day, a doctor told me my baby was no longer breathing, but another doctor later said the baby was alive. The mixed messages left me traumatized and confused.”*

P7 narrated, *“When I reported my baby wasn't feeling well, the nurse didn't communicate this to the doctor. It felt like they weren't taking my concerns seriously.”*

The absence of clear and consistent communication not only left mothers feeling excluded but also contributed to mistrust and heightened emotional distress. Participants emphasized the need for more transparent and empathetic communication.

Inconsistent Staff Attitudes.

The attitudes of healthcare workers varied greatly, ranging from supportive and empathetic to dismissive and unprofessional. These inconsistencies significantly influenced how mothers perceived the quality of care and their overall NICU experience. This is what they had to say:

P5 stated, *“Some nurses were kind and helpful, but others made me feel like I was a burden. They would scold me for asking questions about my baby’s care.”*

P9 narrated, *“One nurse laughed at me when I struggled to use the breast pump. It was humiliating, and I didn’t ask for help again after that.”*

P4 highlighted, *“There was one doctor who encouraged me and always checked on my baby’s progress. It was the only time I felt seen and valued.”*

These experiences emphasize the importance of consistent, compassionate care from healthcare providers. Negative interactions with staff not only diminished mothers' confidence but also affected their ability to participate actively in their neonates' care.

Miscommunication and Delayed Responses

Mothers reported delays in responding to neonates' needs and a lack of coordination among healthcare providers. These issues sometimes led to preventable complications and heightened the anxiety of already distressed mothers. Some participants said:

P6 said, *“I found my baby foaming at the mouth during feeding time. When I called for help, it took a long time for anyone to come, and I was terrified something would happen.”*

P2 explained, *“One day, I reported a problem with my baby’s breathing, but the nurse on duty said it wasn’t urgent. By the time they acted, the situation had worsened.”*

P11 narrated, *“The nurses didn’t seem to communicate with each other. One told me to breastfeed, while another told me to ask for formula. It was so confusing.”*

These accounts highlight how delays and miscommunication in the NICU can compromise both the physical well-being of neonates and the emotional well-being of their mothers.

Participants emphasized the need for better coordination and responsiveness from healthcare providers.

Lack of Counselling Services.

Many participants noted the absence of structured counselling services in the NICU. The lack of emotional and psychological support left mothers feeling neglected and unsupported during a critical time.

P7 said, *“I never received any counselling. I was just told to take care of my baby, but no one asked how I was coping emotionally.”*

P1 said, *“I believe both mothers and nurses need counselling. Nurses carry their stresses into work, and we mothers are left to deal with our emotions on our own.”*

P3 stated, *“If someone had sat with me and explained what to expect, I wouldn’t have felt so lost. The silence was the hardest part.”*

The absence of counselling services was a significant gap in the healthcare system, as it left mothers to navigate their emotional struggles without adequate support. Participants suggested that integrating counselling into NICU care could improve outcomes for both mothers and neonates.

Theme 3: Cultural and Social Dynamics

The third theme, **Cultural and Social Dynamics**, explores the interplay between cultural beliefs, family support, and societal norms in shaping mothers’ experiences in the NICU. Participants highlighted the role of cultural expectations in influencing their perceptions of care, the challenges of balancing traditional practices with modern healthcare, and the importance of family support during this emotionally taxing period.

Taboos and Beliefs.

Cultural taboos and beliefs about motherhood and caregiving significantly influenced how mothers navigated the NICU environment. Many participants noted that traditional expectations about maternal roles sometimes conflicted with the clinical nature of NICU care.

P8 stated, *“In our culture, a mother is expected to be the sole caregiver for her baby, but in the NICU, we had to rely on nurses and doctors. It felt like I was not fulfilling my role as a mother.”*

P3 narrated, *“There’s a belief that premature babies are too fragile to survive. I felt judged when people from home asked why my baby was still in the hospital.”*

P11 explained, *“Some traditions discourage fathers from being involved during the early stages, but in the NICU, fathers were sometimes more informed than mothers. It was hard to reconcile this.”*

These accounts reveal the tension between cultural expectations and the realities of modern neonatal care. Participants felt that healthcare providers could benefit from greater cultural sensitivity to bridge these gaps.

Family Restrictions

Strict visitation policies in the NICU often clashed with cultural norms that emphasized the importance of family involvement. Mothers expressed frustration over the limited opportunities for extended family members to see and support them and their neonates.

P2 narrated, *“In our culture, the family plays a big role in caring for the baby, but in the NICU, my sister-in-law wasn’t allowed to visit, even though she came from far to support me.”*

P5 said, *“Fathers were not always allowed to visit freely, which caused tension because they felt excluded from their baby’s care.”*

P7 highlighted, *“I had to explain to my family that the NICU has strict rules, but they felt like I wasn’t doing enough to involve them in the baby’s recovery.”*

The restrictions, while important for infection control, often left mothers feeling isolated and without the practical and emotional support they would typically receive from their families.

Social Isolation

The NICU environment often led to social isolation, as mothers were cut off from their usual social networks. This isolation was further exacerbated by the lack of peer support within the hospital.

P4 stated, *“When I stayed in the mothers’ residence, I hardly interacted with anyone. We were all going through tough times, but no one spoke about it.”*

P9 explained, *“Back home, neighbors and extended family would come together to help, but here, I felt completely alone.”*

P1 highlighted, *“The hospital setting made it hard to connect with other mothers. Everyone seemed to keep to themselves, and I missed the sense of community from home.”*

These experiences demonstrate how the NICU environment disrupted traditional social structures, leaving mothers to cope with their challenges in isolation.

Role of Extended Family

Despite the limitations imposed by hospital policies, the role of extended family remained a significant source of support for many participants. Extended family members often provided emotional reassurance and practical assistance, even from a distance.

P10 narrated, *“My mother would call every day to check on me and remind me to take care of myself. Even though she couldn’t visit, her words gave me strength.”*

P6 said, *“My sister came all the way from the village to bring me food and help me with things I needed. It showed me I wasn’t alone in this.”*

P2 stated, *“My husband’s family made sure I had everything I needed while I stayed in the hospital. Their support kept me going.”*

These accounts underscore the importance of family networks in providing comfort and stability for mothers during their NICU journey.

Influence of Cultural Norms

Cultural norms shaped how participants perceived their experiences and interactions in the NICU. While some found harmony between cultural practices and hospital protocols, others felt that cultural sensitivities were overlooked.

P7 stated, *“In our culture, a mother must be kept clean and well-fed to care for her baby, but the food and facilities here didn’t align with those expectations.”*

P8 explained, *“The practice of keeping mothers isolated after childbirth resonated with the NICU’s restricted visitation rules, but it still felt lonely without proper support.”*

P3 said, *“The emphasis on hygiene in the NICU is similar to our cultural beliefs about cleanliness around a newborn, which I appreciated.”*

These insights put forward that cultural alignment can enhance the care experience, but a lack of cultural sensitivity may create barriers to trust and effective caregiving.

4.4 Conclusion

This chapter has presented the findings of the study, focusing on the emotional, systemic, and cultural challenges faced by mothers in the NICU at Nyangabgwe Hospital. The themes revealed the intense emotional toll of stress, anxiety, and guilt, compounded by systemic barriers such as resource constraints and communication gaps. Additionally, cultural beliefs and social norms significantly influenced mothers’ perceptions and interactions within the NICU. These findings underscore the nature of the NICU experience and brings out critical areas for intervention to improve support and care for mothers and their neonates.

CHAPTER FIVE: DISCUSSION OF FINDINGS

5.0 Introduction

This chapter discusses the findings of the study. The discussion integrates interpretations of the findings with comparisons to existing literature, offering insights into the implications of these findings. This chapter begins with an analysis of demographic characteristics and proceeds to the three main themes identified: emotional and psychological impact, healthcare system challenges, and cultural and social dynamics. Each section includes detailed discussions, arguments based on related studies, and an interpretation of the results.

5.1 Demographic Characteristics of the respondents

The participants in this study were mothers aged 24 to 35 years, with varying marital statuses, parities, employment statuses, educational levels, and distances to the NICU. Most participants were married and multigravida, with a significant proportion unemployed and having attained secondary or tertiary education. These diverse demographic characteristics enriched the study's findings and provided a holistic view of the experiences of mothers in the NICU.

The variation in educational levels influenced the mothers' understanding and coping mechanisms. Mothers with tertiary education were more likely to seek information proactively and understand medical terminologies, while those with lower education levels relied heavily on healthcare workers for guidance. For instance, Participant 005, a tertiary-educated mother, reported actively questioning nurses about her neonate's condition, while Participant 004, with primary education, felt overwhelmed and dependent on nurses for updates. This disparity highlights how education serves as a critical determinant of maternal empowerment and engagement within the NICU setting.

The distance to the NICU posed accessibility challenges, especially for mothers traveling from rural areas. Mothers who lived farther from the hospital reported feelings of isolation and frustration due to infrequent family visits. Participant 002, for example, who traveled 50 kilometers to the NICU, noted the difficulty of maintaining consistent support from her family due to the logistical and financial burdens of travel. This sense of isolation was compounded by the limited visiting hours imposed by the NICU, further alienating mothers from their social support systems. The burden of long distances not only exacerbated emotional stress but also highlighted systemic barriers to equitable healthcare access.

Similar findings have been reported in other studies. For example, Mburu et al. (2019) in Kenya found that mothers from rural areas faced significant barriers in accessing NICU services, leading to delayed care and heightened anxiety. These mothers often depended on intermittent family visits, which were hindered by transportation costs and distance, mirroring the challenges experienced by participants in this study. Likewise, a study by Asiedu et al. (2021) in Ghana highlighted that maternal education levels influenced their ability to navigate the NICU environment, with educated mothers demonstrating better coping strategies and improved communication with healthcare providers. In South Africa, a study by Phiri and Moyo (2020) noted that multigravida mothers were more familiar with neonatal care, contributing to lower stress levels compared to primigravida mothers who had less experience with similar circumstances.

Contrastingly, a study in India by Rao et al. (2022) emphasized that extended family support played a more critical role than education in alleviating stress, underscoring the cultural variations in maternal experiences. Another study by Johnson et al. (2018) in the United States revealed that mothers with higher socioeconomic status, often linked to better education and employment, reported fewer challenges in accessing NICU services and comprehending medical procedures. These studies collectively underscore the diverse factors shaping maternal experiences and the need for context-specific interventions.

These findings highlight the relationship between education, socioeconomic status, and geographic location in shaping mothers' NICU experiences. Addressing these disparities requires tailored interventions such as providing transportation assistance for rural mothers, offering educational support to enhance understanding, and creating support networks to bridge the emotional gap caused by distance. Additionally, health facilities must consider structural inequities and implement strategies to ensure equitable access, including mobile healthcare services and community engagement programs to support families in remote areas.

5.2 Theme 1: Emotional and Psychological Impact

The emotional and psychological toll on mothers in the NICU was profound, with stress, anxiety, loneliness, and guilt being the dominant emotions. The uncertainty surrounding their neonates' prognosis and the intimidating medical environment were significant stressors. For instance, Participant 002 described sleepless nights due to constant worry about her baby's survival, while Participant 007 highlighted the psychological burden of hearing alarms and witnessing her baby connected to medical devices.

The combination of these stressors often created a persistent state of anxiety, as mothers crossed the unpredictable outcomes of their neonates' health conditions. This relentless cycle of worry and fear compounded the emotional challenges, leaving mothers physically and mentally drained.

Loneliness was another recurring emotion. Mothers expressed a deep sense of isolation due to the structured visiting hours and the separation from their families. Participant 006 noted that the lack of a social support system within the hospital amplified her feelings of solitude, as other mothers were also consumed with their own worries. The absence of peer interaction or organized support groups exacerbated the sense of alienation, leaving mothers to internalize their struggles. Furthermore, guilt emerged as a significant emotional burden for many mothers, particularly those who were unable to meet societal and cultural expectations of caregiving. Participant 011's account of feeling inadequate due to insufficient breast milk production exemplifies the profound psychological impact of unmet maternal expectations.

This emotional burden aligns with findings from Bhutta et al. (2019) in Pakistan, where mothers reported heightened anxiety and stress due to unfamiliar medical equipment and limited communication from healthcare providers. Similarly, a study by Ngugi et al. (2020) in Kenya found that maternal loneliness was exacerbated by structured visiting hours and the lack of peer support in NICUs. These studies echo the experiences of mothers in Botswana, where institutional policies often unintentionally contribute to emotional distress.

However, a study by Andersson et al. (2021) in Sweden showed contrasting outcomes, where mothers experienced lower stress levels due to the integration of family-centered care, which allowed for greater parental involvement and emotional support. The emphasis on family participation and regular updates from healthcare providers fostered a more inclusive environment, reducing anxiety and enhancing maternal coping mechanisms. In Nigeria, Ajayi et al. (2018) observed that cultural practices emphasizing communal support mitigated loneliness, contrasting with the isolation reported by mothers in Botswana.

These findings underscore the importance of emotional support mechanisms in NICUs. Interventions such as structured counseling sessions, peer support groups, and improved communication between healthcare providers and mothers can alleviate the psychological burden. Incorporating family-centered care models, as observed in Sweden, could also reduce maternal stress and enhance coping mechanisms. Furthermore, cultural adaptations to

healthcare practices, such as integrating communal support systems, may provide additional relief for mothers navigating the NICU experience.

5.3 Theme 2: Healthcare System Challenges

Participants highlighted systemic barriers such as resource constraints, communication gaps, and inconsistent staff attitudes. The shortage of essential medical equipment, such as appropriately sized oxygen masks, and inadequate facilities for mothers added to their distress. Participant 010's account of sleeping on a bed without a mattress exemplifies these challenges. Such inadequacies not only affected the quality of neonatal care but also exacerbated the physical and emotional strain on mothers. Resource constraints extended beyond medical equipment to include a lack of basic amenities, such as nutritious food and comfortable accommodations for mothers, further compounding their stress.

Communication gaps between healthcare providers and mothers were another significant challenge. Participants described instances of receiving conflicting information or being excluded from critical discussions about their neonates' care. For example, Participant 003 recounted a situation where two healthcare providers offered contradictory updates about her baby's condition, leaving her confused and anxious. This lack of clarity undermined trust and created unnecessary emotional distress. Additionally, inconsistent staff attitudes further complicated the NICU experience. While some staff were empathetic and supportive, others were perceived as dismissive or unprofessional, as noted by Participant 005, who felt humiliated when seeking assistance with breastfeeding.

The resource challenges identified in this study are consistent with findings by Okafor et al. (2020) in Nigeria, where overcrowded NICUs and insufficient medical supplies were common. Similarly, Karanja et al. (2021) in Kenya noted that communication gaps between mothers and healthcare providers led to mistrust and heightened anxiety. These findings emphasize the pervasive nature of systemic issues in NICU settings across low- and middle-income countries.

In contrast, a study in Australia by Brown et al. (2022) highlighted the benefits of well-resourced NICUs, where mothers reported fewer concerns about the quality of care. Additionally, structured communication protocols in high-income settings improved maternal satisfaction and trust in healthcare providers. These disparities underscore the impact of resource availability and institutional policies on maternal experiences in NICUs.

Addressing healthcare system challenges requires investment in NICU infrastructure, staff training, and resource allocation. Improved communication protocols and staff-patient interactions are critical for building trust and ensuring mothers feel supported during their NICU journey. Policymakers and healthcare administrators must prioritize the equitable distribution of resources and foster a culture of compassion and professionalism within healthcare settings to enhance maternal and neonatal outcomes.

5.4 Theme 3: Cultural and Social Dynamics

Cultural beliefs and social norms significantly influenced mothers' NICU experiences. Participants reported challenges in reconciling traditional caregiving roles with the clinical environment of the NICU. For instance, Participant 008 struggled with cultural expectations that a mother should be the sole caregiver, while Participant 011 faced judgment from her community due to traditional beliefs about the fragility of premature babies. These cultural tensions often created an internal conflict for mothers, as they navigated the expectations of their communities alongside the realities of modern neonatal care.

These cultural dynamics mirror findings from a study by Ahmed et al. (2019) in Ethiopia, where mothers' adherence to cultural practices often conflicted with modern healthcare protocols. Similarly, Ngwenya et al. (2020) in Zimbabwe reported that restricted family involvement in NICUs clashed with cultural norms emphasizing extended family support. These studies highlight the need for healthcare systems to consider cultural sensitivities when designing policies and interventions.

Conversely, a study in Canada by Smith et al. (2021) highlighted the integration of cultural sensitivity training for healthcare providers, which improved maternal satisfaction and trust. This contrasts with the cultural insensitivity reported in Botswana's NICU setting. In settings where cultural norms were respected and incorporated into care practices, mothers reported higher levels of comfort and confidence in the care their neonates received.

Integrating cultural sensitivity into NICU care can bridge the gap between traditional beliefs and modern healthcare practices. Policies that balance infection control with family involvement could also enhance maternal support and satisfaction. Additionally, healthcare providers should receive training on cultural competency to better address the unique needs and expectations of mothers from diverse backgrounds.

5.5 Implications

The findings of this study have significant implications for nursing management, practice, education, and research, particularly in the context of NICUs in Botswana and similar settings. The insights gained from the experiences of mothers in the NICU at Nyangabgwe Hospital highlight critical areas where improvements can be made to enhance maternal and neonatal outcomes.

5.5.1 Nursing Management

The study underscores the importance of addressing resource constraints and workforce challenges in NICUs. The findings suggest that inadequate resources, such as medical equipment and maternal accommodations, may exacerbate the emotional and psychological burden on mothers. This highlights the need for healthcare institutions to prioritize resource allocation and infrastructure improvements to create a more supportive environment for both mothers and healthcare providers. Additionally, the inconsistent attitudes of staff members toward mothers indicate a potential gap in training and support for healthcare workers, which could impact the quality of care provided.

5.5.2 Nursing Practice

The emotional and psychological toll experienced by mothers in the NICU emphasizes the critical role of family-centered care in neonatal settings. The findings suggest that improved communication between healthcare providers and mothers could alleviate feelings of anxiety, loneliness, and guilt. The lack of structured counselling services and peer support groups further highlights the need for emotional and psychological support mechanisms tailored to the unique needs of NICU mothers. These findings point to the potential benefits of integrating emotional support into routine NICU care to enhance maternal well-being and foster stronger mother-infant bonding.

5.5.3 Nursing Education

The study highlights the importance of incorporating cultural sensitivity and communication skills into nursing curricula. The cultural and social dynamics influencing maternal experiences in the NICU suggest that healthcare providers may benefit from training on how to navigate cultural beliefs and practices in a way that respects and supports mothers. By equipping nurses with the skills to address the emotional and cultural needs of mothers, nursing education programs could play a pivotal role in improving the overall NICU experience for families.

5.5.4 Nursing Research

The findings of this study contribute to the growing body of literature on maternal experiences in NICUs, particularly in low-resource settings. The emotional, systemic, and cultural challenges identified in this study highlight the need for further research to explore effective interventions for supporting mothers in NICUs. Future studies could investigate the long-term impact of maternal stress and anxiety on both mothers and neonates, as well as the effectiveness of family-centered care models in improving maternal and neonatal outcomes. Additionally, research on culturally sensitive care practices could provide valuable insights into how healthcare systems can better address the diverse needs of mothers in NICUs.

5.6 Summary

This chapter has discussed the findings of the study, highlighting the demographic factors and thematic areas influencing mothers' experiences in the NICU. The discussion integrated comparisons with related studies and provided interpretations of the results, emphasizing the need for tailored interventions. Addressing the identified emotional, systemic, and cultural challenges requires a multidimensional approach, including enhanced emotional support, improved healthcare infrastructure, and culturally sensitive care models.

5.7 Recommendations

5.7.1 Policy Development

Since this study found that resource constraints and inconsistent communication significantly impact maternal experiences, it is recommended for the Ministry of Health and hospital administrators to develop and implement policies that prioritize equitable resource allocation in NICUs. These policies should ensure the availability of essential medical equipment, improve maternal accommodations, and establish clear communication protocols between healthcare providers and mothers. Additionally, policies should promote family-centered care models that encourage parental involvement in neonatal care decisions.

5.7.2 Training Programs

Given the findings that inconsistent staff attitudes and communication gaps contribute to maternal distress, it is recommended for nursing management and hospital training departments to design and implement regular training programs for healthcare providers. These programs

should focus on the affective domain in their objectives; ethics, enhancing communication skills, emotional intelligence, and cultural sensitivity to ensure that mothers feel supported and respected during their NICU journey. Training should also emphasize the importance of providing timely and accurate information to mothers about their neonates' conditions and care plans.

5.7.3 Support Services

Since the study revealed that mothers experience significant emotional and psychological challenges, it is recommended for hospital administrators and healthcare providers to establish structured support services within the NICU. These services should include counselling sessions, peer support groups, and educational workshops to help mothers cope with stress, anxiety, and feelings of isolation. Providing access to chaplaincy services or spiritual support could also address the emotional needs of mothers who rely on faith as a coping mechanism.

5.7.4 Infrastructure Improvements

Given the findings that inadequate facilities and resource shortages exacerbate maternal stress, it is recommended for hospital management and policymakers to invest in infrastructure improvements for NICUs. This includes upgrading maternal feeding and accommodations, ensuring the availability of essential medical equipment, and creating spaces that facilitate family involvement. Improvements in infrastructure could create a more supportive environment for both mothers and healthcare providers, ultimately enhancing the quality of care.

5.7.5 Research and Monitoring

Since this study identified gaps in understanding the long-term impact of maternal stress and the effectiveness of support interventions, it is recommended for researchers and healthcare institutions to conduct longitudinal studies to evaluate the outcomes of family-centered care models and culturally sensitive practices. Ongoing monitoring and evaluation of NICU policies and practices could provide valuable insights into their effectiveness and inform evidence-based improvements.

5.8 Study Limitations

This study has several limitations that should be acknowledged. First, the findings may not be easily generalizable to other settings, as the study was conducted at Nyangabgwe Hospital, a national/public referral hospital in Northern Botswana. This facility receives the highest-risk

deliveries and the sickest neonates in the region, which may not reflect the experiences of mothers in primary or district hospitals with different patient populations and resource levels.

Also, the data collection process may have been influenced by the hospital setting, as interviews were conducted with mothers who were still caring for their neonates in the NICU. This could have affected the quality of the data, as mothers may have been under significant emotional stress or time constraints, potentially limiting their ability to fully articulate their experiences.

The study focused exclusively on mothers, excluding fathers and other family members who also play a critical role in the care and emotional support of neonates. Fathers, in particular, often share similar emotional experiences and have a significant influence on how mothers respond to their newborns and the NICU environment. Their exclusion may have resulted in an incomplete understanding of the family dynamics and support systems involved in neonatal care.

While these limitations are acknowledged, they were addressed to some extent by ensuring the study's focus remained on the specific experiences of mothers, as this was the primary objective. However, future research could expand the scope to include fathers and other caregivers to provide a more comprehensive understanding of the NICU experience.

5.9 Strength of the Study

The study possesses various strengths that add value to its contribution in exploration and dissection of maternal experiences in neonatal intensive care settings with the aim of making notable improvements.

- 1. Design: Qualitative Descriptive Phenomenological-** This is one study design that is aimed to describe the experiences of these mothers, it's a design that is suitable for capturing fine details and in depth of personal experiences, at the same time allowing for rich dissection into their emotional and psychological journeys during their baby's admission time in NICU.
- 2. Data collection processes-** Each of the participants went through a 30–45-minute comprehensive in-depth interview. This was purposefully executed to facilitate extensive engagement with the participants, thus allowing these mothers to express their feelings, challenges and also coping mechanisms with all necessary detail. These

are data collection strategies known for their ability to dig deep in to the less understood experiences of these mothers.

- 3. Cultural context-** The study was conducted in Francistown, Botswana, the study participants were not necessarily people originating in the area only but a diversity of all corners of the country hence giving a country wide perspective on cultural dynamics influencing maternal experiences in the NICU. It uncovers how cultural practices and beliefs, such as the role of the mother as a primary caregiver, family as a whole, partner involvement, taboos and other relative's restriction on access to NICU contribute to mother's experiences in the NICU.
- 4. Support systems identification-** The study also highlights notable support systems that can aid the mothers to cope and manoeuvre through the challenges of having a sick neonate in the NICU. Healthcare professionals, partners and family were noted to be very vital in aiding the mothers to instil courage and develop emotional bonds with their babies. This finding underpins the relevance of an environment that is conducive for maternal – infant bonding to freely take course.
- 5. Recommendations-** Under the influence of its findings, the study recommendations are those that are very practical for healthcare professionals in Nyangabgwe Hospital and similar settings in the whole African region and beyond. It is underpinned by the sole need for continuous supportive communication and interactions to boost these mother's self-belief and competence in taking care of those sick neonates in the NICU. These are some recommendations of which when properly and precisely executed can foster mother – infant connection hence holistically improve maternal-neonatal outcomes in NICU.
- 6. Contribution to literature-** It is quite evident that research focusing on maternal experiences in NICUs looking at the African context, magnified down to Botswana, Francistown in particular, is very limited. Therefore, this particular study fills the notable void by shedding light on contextually precise insights, at the same time also contributing significantly to the global community in understanding of mothers experiences the remote diverse cultural setting that could be less popular.
- 7. Ethics-** The study also shows ethical rigor by emphasising adherence to informed consent, keeping participant confidentiality and as well allowing the study participants to share their insights in a voluntary manner. These are some considerations which underscore credibility and integrity of the study.

5.10 Dissemination of Findings

Dissemination of research beyond the academic community is an ethical responsibility of researchers and necessary in translational research to help ensure the uptake of research findings to improve health outcomes (Cunningham-Erves et al. 2021). Findings of this study will be distributed to all relevant stakeholders for sensitization so as to acquire desired implementation of recommendations. The researcher will also make sure the research participants are given feedback of findings of this research. One aspect of making research more participant-centred is the dissemination of research results to participants. Curran et al. (2019) asserted that there is a growing literature on research participant feedback, including discussions of various considerations that should be made and recommendations for various methods of participant feedback. Also, executive summaries will be prepared and provided to authorities. The findings will be presented to the public at the School of Nursing sciences graduate forum and also presented at academic conferences in the region to improve coverage/sensitization. A hard copy of the research report will be submitted to the University of Zambia - School of Nursing Sciences, UNZA Medical Library, Great East Road Main Campus Library, Women and New Born Hospital - NICU (UTH) in Lusaka, Ministry of Health Research Committee Botswana, University of Botswana Library, Nyangabgwe Hospital Quality Improvement Committee and Research Committee, Nyangabgwe Hospital NICU, and a single copy kept for the researcher.

5.11 Utilisation of Findings

The findings of this study can be utilized to inform and improve healthcare practices, policies, and support systems for mothers of neonates admitted to the NICU at Nyangabgwe Hospital and similar settings. By highlighting the emotional, psychological, and systemic challenges faced by mothers, the study provides a foundation for developing targeted interventions such as enhanced communication protocols, structured counselling services, and family-centered care models. These findings can guide healthcare providers in offering more empathetic and culturally sensitive care, while policymakers can use the insights to advocate for improved resource allocation and infrastructure in NICUs. Additionally, the study underscores the need for further research to explore long-term maternal and neonatal outcomes, as well as the effectiveness of support interventions, ultimately contributing to better maternal well-being and neonatal care in Botswana and beyond.

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APPENDICES

APPENDIX 1: GANTT CHART

		MONTH AND YEAR							
		Feb	Mar	Oct	Nov	Jan	Feb	March	March
ACTIVITY	PERSONNEL	2024	2024	2024	2024	2025	2025	2025	2025
Submitting Research Proposal to School of Nursing	Researcher								
Proposal Presentation at graduate forum	Researcher								
Submission for ethics Clearance	Researcher								
Data collection	Researcher								
Data analysis	Researcher								
Report writing	Researcher								
1st & 2nd Draft report	Researcher								

to the supervisor									
Submission of the Final draft report	Researcher								
Submission of research document	Researcher								

The exploration of experiences of mothers of sick neonates in the Neonatal Intensive Care Unit (NICU) at Nyangabgwe Hospital began in early 2023 with project planning and proposal development. Data collection took place from October to November 2024, followed by data analysis and report writing. The findings will be disseminated in April 2025.

APPENDIX 2: BUDGET

ITEM	QUANTITY	UNIT COST (BWP)	TOTAL AMOUNT (BWP)
STATIONNERY			
Pens	8	5.00	40.00
Pencils	8	5.00	40.00
Stapler	1	100.00	100.00
Staples	1 box	50.00	50.00
Printing of Consent forms	12	5.00	60.00
Printing/ Binding of proposal for School of Nursing submission	1	150.00	150.00
Printing/ Binding of final research report	5	150.00	750.00
Flash disk external hard drive	2	800.00	1600.00
Correction fluid	2	45.00	90.00
Folders	2	40.00	80.00
A4 paper ream	5	80.00	400.00
ETHICS			
National Health Research Authority(Zambia)	1	2790.00	2790.00
LOGISTICS			

Accommodation in Francistown for 1 month	1	4800.00	4800.00
Transport from Zambia to Botswana and back to Zambia.	1	1200.00	1200.00
Transport within area of data collection (Francistown)	1	2000.00	2000.00
OTHER			
Nvivo software	1	1952.00	1952.00
Voice recording gadget	1	1800.00	1800
CONTINGENCY			
Cash	10% of total	2179.10	1797.01
TOTAL			P17970.10

Budget Justification

This budget aims at facilitation of the study execution; it is an informed estimation to aid the researcher to meet all cost expected in undertaking in this study. The costs include; ethics clearance, stationery and secretarial services, logistics and contingency (10%). Ethics cost will facilitate the submission and approval of the study by the authorities in Zambia while secretarial and stationery costs will facilitate data collection, submission of the report and dissemination. Logistics will ensure the feasibility of the data collection process as well as movement between Botswana and Zambia and within project area. The government of Botswana under Ministry of health (training office) is responsible for funding the project.

APPENDIX 3: PARTICIPANT INFORMATION SHEET

Title of Study: “Experiences of Mothers of Neonates Admitted in the NICU at Nyangabgwe Hospital, Francistown, Botswana”

Principal Investigator: Mr Mose Phillime

Contact Information: +267 72542035 / +267 71539298

Dear Potential Participant,

You are invited to take part in a research study exploring the experiences of mothers whose new-born babies have been admitted to the Neonatal Intensive Care Unit (NICU) at Nyangabgwe Hospital in Francistown, Botswana. Before you decide whether or not to participate, it is important for you to understand why the research is being done and what it will involve. Please take the time to read the following information carefully, and feel free to ask any questions you may have.

Purpose of the Study: The purpose of this study is to gain a deeper understanding of the experiences, challenges, and needs of mothers whose infants are admitted in the NICU at Nyangabgwe Hospital. By exploring your experiences, we hope to identify ways to better support mothers during this challenging time and improve the care provided in the NICU.

Participation Involves: If you choose to participate, you will be asked to;

1. Take part in a semi-structured interview lasting approximately 30-60 minutes. The interview will be conducted in person at a location convenient and conducive for you in the premises of Nyangabgwe hospital.
2. Share your experiences, thoughts, and feelings regarding your journey as a mother with a baby admitted to the NICU. The interview questions will cover topics such as your emotional experiences, interactions with healthcare professionals, support received, and any challenges faced during this time.
3. Your participation in this study is entirely voluntary, and you are free to withdraw at any time without giving a reason.

Confidentiality: Your confidentiality is of utmost importance. All information collected during the study will be kept strictly confidential and will only be accessible to the research team. Your name will not be included in any reports or publications resulting from this study. Additionally, all data will be stored securely and anonymized to protect your identity.

Benefits of Participation: While there may not be direct benefits to you for participating in this study, your insights and experiences will contribute to a better understanding of the challenges faced by mothers with infants in the NICU, in Nyangabgwe Hospital or other similar setups. Also, your participation may ultimately help improve the care and support provided to future mothers and their babies in similar situations.

Voluntary Participation: Your participation in this study is completely voluntary, and declining to participate or withdrawing from the study at any time will not affect the care you or your baby receive at Nyangabgwe Hospital.

Contact Information: If you have any questions about the study or would like to participate, please contact the principal investigator, Mr Mose Phillime at +267 72542035/ +267 71539298.

Thank you for considering participating in this study. Your contribution is greatly appreciated.

Sincerely,

Mr Mose Phillime

University of Zambia

APPENDIX 4: CONSENT FORM

Title of Research Study:” Experiences of Mothers of Neonates Admitted in NICU at Nyangabgwe Hospital, Francistown, Botswana.”

Consent: The information about the study has been read out and explained to me. I understand that taking part in the study is voluntary and that my privacy will be respected and protected. All questions I had have been answered to my fulfilment. I chose to take part freely and voluntarily.

Participant's Signature:Or(Thumb Print)

Date:/...../.....

Data Collector/ Interviewer’s Signature

The participant has understood the purpose and content of the study and has made informed consent to participate in this study.

Principal Investigator's Signature:

Date:/...../.....

APPENDIX 5: DATA COLLECTION TOOL (ENGLISH LANGUAGE)

Data Collection Tool: Interview Guide

Participant Information

Participant ID:

Date of Interview:

Interviewer Name: Mr Mose Phillime

Introduction: Thank you for participating in this interview. The purpose of this interview is to explore your experiences as a mother of a sick neonate admitted to the Neonatal Intensive Care Unit (NICU) and to gather information related to the challenges faced, support received, and cultural influences on NICU care. Your responses will remain confidential, and your participation is entirely voluntary. Please feel free to skip any questions you do not wish to answer or to end the interview at any time.

Study Questions

1. Challenges Faced by Mothers in the NICU

- Can you describe some of the challenges you faced while your neonate was admitted to the NICU?
- How did these challenges affect you emotionally, physically, and socially?
- Were there any specific challenges related to communication with healthcare providers or understanding medical information?
- Did you face any financial or logistical challenges during your time in the NICU? If any can you describe them?

2. Support Provided to Mothers in the NICU

- What support services were available to you as a mother of a sick neonate in the NICU?
- How can you describe the support by the healthcare team during your time in the NICU?
- Were there any support groups or counselling services offered to you? If so, did you find them helpful?

- How was the support from family members, friends, or community organizations during your neonate's hospitalization?

3. Cultural Influences on NICU Care

- How do you perceive the role of culture in the NICU environment?
- What is your observation on cultural practices or beliefs influencing the care provided to neonates in the NICU?
- How did your own cultural background influence your experience in the NICU?
- What can you say about healthcare providers in the NICU with regard to sensitivity to cultural differences and practices?

Conclusion:

- Is there anything else you would like to share about your experiences in the NICU?
- What are your final additional comments or suggestions for improvement of mothers experiences in the NICU?

Closing: Thank you for sharing your experiences with us today. Your insights are valuable in helping us better understand the challenges faced by mothers in the NICU and how we can improve support and care in the future. If you have any further questions or concerns, please feel free to contact Mr Mose Phillime at +267 72542035/ +267 71539298., phillimemos@gmail.com

APPENDIX 6: SCHOOL OF NURSING AUTHORITY TO SUBMIT FOR ETHICAL REVIEW



**THE UNIVERSITY OF ZAMBIA
SCHOOL OF NURSING SCIENCES
OFFICE OF THE ASSISTANT DEAN POSTGRADUATE**

Tel: +260 211 252453
Fax: +260 211 252453
Website: www.unza.zm
Email: dean-nursingscience@unza.zm

School of Nursing Sciences Building
University Teaching Hospitals
P.O Box 50110
Lusaka, Zambia

9th May, 2024

The Chairperson,
UNZABREC,
The University of Zambia,
Ridgeway campus,
Lusaka

Dear Sir/Madam,

RE: PROPOSAL SUBMISSION FOR ETHICAL REVIEW: MOSE PHILLIME

Mose Phillime presented his research proposal entitled, “**Experiences of Mothers of Neonates admitted in the Neonatal Intensive Care Unit at Nyangabgwe Hospital, Francis Town, Botswana**”, to the School of Nursing Sciences Graduate Proposal Presentation Forum. The Supervisor has confirmed that the corrections and recommendations to the research proposal have been attended to.

This serves as a supporting letter for the student to submit the proposal for ethical review to UNZABREC.

Yours faithfully,




Marjorie Kabinga-Makukula (PhD)
ASSISTANT DEAN -Postgraduate

Cc: Head, Department of Midwifery, Women’s and Child Health
File

APPENDIX 7: NYANGABGWE HOSPITAL RESEARCH COMMITTEE APPROVAL

TELEPHONE: 2411000
FAX: 2416706



NYANGABGWE HOSPITAL
PRIVATE BAG 127
FRANCISTOWN
BOTSWANA

REPUBLIC OF BOTSWANA
MINISTRY OF HEALTH

Ref: NH 18 November 2024

Researcher: MOSE PHILLIME
THE UNIVERSITY OF ZAMBIA
SCHOOL OF NURSING SCIENCES

STUDY TITLE: "EXPERIENCES OF MOTHERS OF NEONATES ADMITTED IN THE NEONATAL INTENSIVE CARE UNIT (NICU) AT NYANGABGWE HOSPITAL, FRANCISTOWN, BOTSWANA."

Application Type: NEW APPLICATION Site: Nyangabgwe referral Hospital

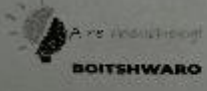
Date of approval: 18 November 2024

Expiration date: 18 November 2025


The institutional review Board (Research & Ethics Committee) for Human Subjects Research for Nyangabgwe Hospital is pleased to inform you that your request to conduct a research study has been approved.

You will not change any aspect of your research without permission from the Nyangabgwe Hospital IRB. The research should be conducted as outlined in the approved proposal. Any changes to the approved proposal must be submitted to the research and to the Research and ethics board for consideration and approval

- You need to report any unforeseen circumstance including the termination of the study.
- You must allow Nyangabgwe hospital IRB access to the study at any time for purposes of auditing.

 **BOITSHWARO**

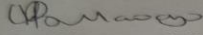
Vision: *A Healthy Nation*
Values: *Respect, Equity, Timeliness, Customer Focus, Teamwork, Accountability*

 **BOTSWANA**
Our pride, your destination

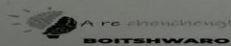
- **At the end of the study you should give Nyangabgwe Hospital IBR a hard copy and soft copy of your report.**

Wishing you success in your study.

Yours sincerely



Dr. Unangoni Jeremiah-Bulawayo
Chairperson Nyangabgwe Hospital IRB Committee



Vision: A Healthy Nation
Values: Dikho, Equity, Timeliness, Customer Focus, Teamwork, Accountability



APPENDIX 8: UNZABREC APPROVAL



UNIVERSITY OF ZAMBIA
BIOMEDICAL RESEARCH ETHICS COMMITTEE

Telephone: +260 977925304 Ridgeway Campus Telegrams: UNZA, LUSAKA P.O. Box 50110
Telex: UNZALU ZA 44370 Lusaka, Zambia
Fax: +260-1-250753 E-mail: unzarec@unza.zm
Federal Assurance No. FWA00000338 IRB00001131 of IORG0000774 NHRAR-REC No 2021-05-0002

14th August 2024

Your REF. No. 5516-2024

Mr. Mose Phillime,
University of Zambia,
School of Nursing Sciences,
P.O Box 50110,
Lusaka.

Dear Mr. Phillime,

**RE: EXPERIENCES OF MOTHERS OF NEONATES ADMITTED IN THE NICU AT
NYANGABGWE HOSPITAL, FRANCISTOWN, BOTSWANA (REF. NO. 5516-2024)**

The above-mentioned research proposal was presented to the Biomedical Research Ethics Committee on 14th August, 2024. The proposal is **approved**. The approval is based on the following documents that were submitted for review:

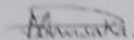
- a) Study proposal
 - b) Questionnaires
 - c) Participant Consent Form
- APPROVAL NUMBER : REF. No. 5516-2024.

This number should be used on all correspondence, consent forms and documents as appropriate.

- i. APPROVAL DATE : 14th August 2024
- ii. TYPE OF APPROVAL : Standard
- iii. EXPIRATION DATE OF APPROVAL : 13th August 2025
- iv. After this date, this project may only continue upon renewal. For purposes of renewal, a progress report on a standard form obtainable from the UNZABREC Offices should be submitted one month before the expiration date for continuing review.
- v. SERIOUS ADVERSE EVENT REPORTING: All SAEs and any

- vi. other serious challenges/problems having to do with participant welfare, participant safety and study integrity must be reported to UNZABREC within 3 working days using standard forms obtainable from UNZABREC.
- vii. **MODIFICATIONS:** Prior UNZABREC approval using standard forms obtainable from the UNZABREC Offices is required before implementing any changes in the Protocol (including changes in the consent documents).
- viii. **TERMINATION OF STUDY:** On termination of a study, a report has to be submitted to the UNZABREC using standard forms obtainable from the UNZABREC Offices.
- ix. **NHRA:** You are advised to obtain final study clearance and approval to conduct research in Zambia from the National Health Research Authority (NHRA) before commencing the research project.
- x. **QUESTIONS:** Please contact the UNZABREC on Telephone No. +260977925304 or by e-mail on unzarec@unza.zm.
- xi. **OTHER:** Please be reminded to send in copies of your research findings/results for our records. You are also required to submit electronic copies of your publications in peer-reviewed journals that may emanate from this study. Use the online portal: unza.rhinno.net for further submissions.

Yours sincerely,



Prof. Sody Mweetwa Munsaka, BSc., MSc., PhD

CHAIRPERSON

Tel: +260977925304

E-mail: s.munsaka@unza.zm

APPENDIX 9: BOTSWANA MINISTRY OF HEALTH (HDRC) APPROVAL

TELEPHONE: 363 2500
FAX: 391 0647
TELEGRAMS: RABONGAEA
TELEX: 2813 CARE BD



REPUBLIC OF BOTSWANA

MINISTRY OF HEALTH
PRIVATE BAG 0035
GABORONE

REFERENCE NO: HPRD: 6/14/1

10 October 2024

Health Research and Development Division

Notification of IRB Review: **New application**

Mose Phillime
P/Bag 127
Francistown

Dear Mose Phillime

PROTOCOL TITLE: EXPERIENCE OF MOTHERS OF NEONATES ADMITTED IN THE NEONATAL INTENSIVE CARE UNIT (NICU) AT NYANGAGBGWE HOSPITAL, FRANCISTOWN, BOTSWANA

Review Type: Health Research and Development Division
Review Date: 8 October 2024
Approval Date: 10th October 2024
Effective Date: 10th October 2024
Expiration Date: 9th October 2025
Risk Determination: Less than Minimal Risk

Thank you for submitting new application for the above-referenced protocol. The permission is granted to conduct the study. The approval is for academic fulfillment only.

This permit does not however give you authority to collect data from the selected sites without prior approval from the management. Consent from the identified individuals should be obtained where applicable.

The research should be conducted as outlined in the approved proposal. Any changes to the approved proposal must be submitted to the Health Research and Development Division in the Ministry of Health for consideration and approval.

Furthermore, you are requested to submit at least one hardcopy and an electronic copy of the report to the Health Research, Ministry of Health within 3 months of completion of the study. Copies should also be submitted to all other relevant authorities.



Vision: *A Healthy Nation*
Values: *Unity, Equity, Trustworthiness, Customer Focus, Teamwork, Accountability*



TELEPHONE: 363 2500
FAX: 391 0647
TELEGRAMS: RABONGAKA
TELEX: 2818 CARE BD



MINISTRY OF HEALTH
PRIVATE BAG 0038
GABORONE

REPUBLIC OF BOTSWANA

Continuing Review

In order to continue work on this study (including data analysis) beyond the expiry date, submit a Continuing Review Form for Approval at least three (3) months prior to the protocol's expiration date.

The Continuing Review Form can be obtained from the Health Research Division Office (HRDD), Office No. 7A.7 or Ministry of Health website: www.moh.gov.bw or can be requested via e-mail from HRDD office, e-mail address: hhealthresearch@gov.bw or hhealthresearch@govbots.onmicrosoft.com. As a courtesy, the HRDD will send you a reminder email about eight (8) weeks before the lapse date, but failure to receive it does not affect your responsibility to submit a timely Continuing Report form.

Amendments

During the approval period, if you propose any change to the protocol such as its funding source, recruiting materials, or consent documents, you must seek HRDC approval before implementing it. Please summarize the proposed change and the rationale for it in the amendment form available from the Health Research Division Office (HRDD), Office No.7A .7 or Ministry of Health website: www.moh.gov.bw or can be requested via e-mail from HRDD Office, e-mail address: hhealthresearch@govbots.onmicrosoft.com

In addition submit a copy of an updated version of your original protocol application showing all proposed changes in bold or "track changes".

Reporting

Other events which must be reported promptly in writing to the HRDC include:

- Suspension or termination of the protocol by you or the grantor
- Unexpected problems involving risk to subjects or others
- Adverse events, including unanticipated or anticipated but severe physical harm to subjects.

If you have any questions please do not hesitate to contact Mr Abia Sebaka at, asebaka@gov.bw, Tel +267-3632754 and Mr Kgomotso Motlhanka at, kgmmotlhanka@gov.bw, Tel +267-3632751.

Thank you for your cooperation and your commitment to the protection of human participants in research.

Yours Sincerely

Abia Sebaka
for / PERMANENT SECRETARY



Vision: A Healthy Nation.
Values: Botho, Equity, Timeliness, Customer Focus,
Teamwork, Accountability.

