KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS EXCLUSIVE BREASTFEEDING AMONG NURSING MOTHERS ATTENDING INFANT WELFARE CLINIC IN UNIVERSITY OF BENIN TEACHING HOSPITAL, EDO STATE

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IN PARTIAL FULFILLMENT OF THE AWARD OF "BACHELOR OF NURSING SCIENCES", UNIVERSITY OF BENIN, BENIN CITY.

OCTOBER, 2025.

DECLARATION

This is to declare that this research project titled **"KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS EXCLUSIVE BREASTFEEDING AMONG NURSING**

MOTHERS ATTENDING INFANT WELFARE CLINIC IN UNIVERSITY OF BENIN TEACHING HOSPITAL, EDO STATE " was carried out by **ADENOMOH MARTHA OSEMUDIAMEN**. It is solely the result of my work except were acknowledged as being derived from other person(s) or resources.

MATRICULATION NUMBER: _____

FACULTY OF NURSING SCIENCE, UNIVERSITY OF BENIN, BENIN CITY.

SIGNATURE: _____

DATE: _____

CERTIFICATION

This is to certify that this research project titled **KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS EXCLUSIVE BREASTFEEDING AMONG NURSING MOTHERS IN UNIVERSITY OF BENIN TEACHING HOSPITAL, UBTH, BENIN**

CITY, EDO STATE was carried out by **ADENOMOH MARTHA OSEMUDIAMEN** with **MATRICULATION NUMBER: BMS1900078** in the department of Nursing Science, under the supervision of **Mrs. R. LAWAL.**

MRS. R. LAWAL	**Sign & Date**
Supervisor	
PROF (MRS) C.E. OMOROGBE	**Sign & Date**
Head of Department	
External Examiner	**Sign & Date**

DEDICATION

This research study is dedicated to God Almighty, the master of the Day of Judgment whose mercy, grace, strength, wisdom and love has kept me through my period of training and also enabling me to carry out and complete this research work.

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I would like to begin by giving all the glory to the Almighty God, the sovereign owner of my life. I am eternally grateful for His guidance, protection, and unfailing provision throughout my life and academic journey.

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ABSTRACT

Exclusive breastfeeding (EBF) is a vital public health strategy recommended for the first six months of life, providing optimal nutrition and immunity for infants. Despite its benefits, many nursing mothers face challenges that hinder its effective practice. This study aimed to assess the knowledge and practice of exclusive breastfeeding among nursing mothers attending the Infant Welfare Clinic at the University of Benin Teaching Hospital (UBTH), Benin City, Edo State. A descriptive cross-sectional research design was employed, involving 127 nursing mothers selected through a convenience sampling technique. Data were collected using a structured, self-administered questionnaire and analyzed using the Statistical Package for the Social Sciences (SPSS) version 26.0. Descriptive and inferential statistics were utilized to summarize and interpret the data. The findings revealed that a majority of the respondents demonstrated good knowledge of exclusive breastfeeding, with 75.6% correctly identifying the recommended six-month duration. However, while 59.1% practiced exclusive breastfeeding, a notable proportion discontinued before six months due to factors such as return to work, lack of family support, and perceived insufficient breast milk. Significant associations were found between knowledge and practice levels, as well as between exclusive breastfeeding practice and socio-demographic variables such as age and parity. The study concluded that although knowledge of exclusive breastfeeding among mothers was generally high, this did not always translate into optimal practice. Gaps remain due to socio-cultural and economic challenges. Based on the findings, it is recommended that more targeted health education and breastfeeding support programs be implemented, especially those addressing workplace support and family involvement. Policymakers should also consider extending maternity leave and promoting breastfeeding-friendly environments in public and private sectors to improve exclusive breastfeeding rates. This study provides useful insights for healthcare providers and stakeholders involved in maternal and child health promotion.

***Keywords**: Knowledge, Attitude, Practice, Exclusive Breastfeeding, Nursing Mother*

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Exclusive breastfeeding (EBF) refers to the practice of feeding infants only breast milk for the first six months of life, without introducing any other liquids or solids, except for oral rehydration solutions, drops, syrups (vitamins, minerals, or medicines) as recommended by the World Health Organization (WHO) and United Nations Children's Fund (UNICEF). This practice is recognized globally as one of the most effective strategies for reducing infant morbidity and mortality, especially in low- and middle-income countries (Wu et al., 2022). EBF not only provides essential nutrients for infant growth and development but also protects against common childhood illnesses such as diarrhea and pneumonia, thereby promoting overall child survival and development (Gebeyehu et al., 2023; WHO, 2020, as cited in Wu et al., 2022). Despite strong global advocacy, the rates of EBF remain suboptimal in many regions, including sub-Saharan Africa. According to Ejie et al. (2021), barriers to EBF in African countries include socio-cultural beliefs, inadequate maternal knowledge, limited support from health professionals, and economic pressures. In Nigeria, EBF is a significant public health concern. The 2018 Nigeria Demographic and Health Survey (NDHS) reported that only 29% of infants under six months were exclusively breastfed, which is far below the WHO's global target of at least 50% by 2025 (Okoroiwu et al., 2021). This statistic highlights a significant gap between policy recommendations and actual maternal practices.

Several studies in Nigeria have examined factors influencing EBF. Adebayo et al. (2021), in a

study conducted in a semi-urban community, found that although most mothers were aware of the benefits of EBF, practical challenges such as returning to work, fatigue, and cultural misconceptions hindered optimal practice. Similar findings were reported by Ibekwe et al. (2022), who noted that working-class women in teaching hospitals experienced multiple constraints, including inflexible work environments and inadequate breastfeeding breaks. This emphasizes the intersection of occupational demands and maternal health practices in urban Nigerian settings. Education and awareness have been consistently linked to improved EBF outcomes. For instance, Laksono et al. (2021) found that higher maternal education significantly increased the likelihood of practicing EBF in Indonesia. In the same vein, Kartika et al. (2021) and Kristina et al. (2023) observed that mothers with greater knowledge of EBF were more likely to exclusively breastfeed their infants in the early postpartum period. In Nigeria, Tomori (2021) and Sokan-Adeaga et al. (2022) supported these findings by revealing that maternal knowledge and positive attitudes strongly influenced EBF practices in both rural and peri-urban settings.

Nonetheless, knowledge alone may not guarantee compliance with EBF. Attitudinal and socio-cultural factors remain major influencers. Studies in Ethiopia and Saudi Arabia have demonstrated that maternal ideation, cultural beliefs, and peer pressure significantly affect breastfeeding decisions (Elgzar et al., 2023; Gebretsadik et al., 2022). Alyousefi (2021) particularly emphasized that social acceptance is a unique predictor of successful EBF among Saudi mothers. In sub-Saharan Africa, deep-rooted traditional beliefs and misconceptions—such as breast milk being insufficient or the need to introduce water in hot climates—often undermine EBF efforts (Ejie et al., 2021; Sosseh et al., 2023). The role of paternal and familial

support in facilitating EBF cannot be overstated. Agrawal et al. (2022) highlighted the critical influence of fathers in encouraging breastfeeding, especially through emotional and logistical support. This aligns with findings from Riaz et al. (2022) in rural Pakistan and Sosseh et al. (2023) in The Gambia, where household dynamics and cultural norms significantly impacted maternal breastfeeding behaviors. Similarly, Al Shahrani et al. (2021) observed that lack of family support was associated with early cessation of EBF among Saudi mothers.

Moreover, institutional support, including maternity leave policies and hospital practices, influences EBF sustainability. Ickes et al. (2021) reported that in Kenya, working mothers often struggled with EBF due to limited workplace accommodations. In contrast, Mäkelä et al. (2023) found that the implementation of the Baby-Friendly Hospital Initiative (BFHI) significantly improved maternal breastfeeding attitudes and outcomes in Finland. Rohini et al. (2022) also emphasized that structured breastfeeding education led to better adherence to EBF than standard hospital information alone. Globally, systematic reviews and meta-analyses underscore the multifactorial nature of EBF determinants. Wu et al. (2022) and Mohammed et al. (2023) synthesized global evidence showing that maternal education, cultural beliefs, health system capacity, and social norms are key factors shaping EBF practices. In Ethiopia, Gebeyehu et al. (2023) further identified antenatal counseling, postnatal follow-up, and institutional delivery as positive determinants of EBF.

Locally, within Edo State, there is a paucity of current and comprehensive data evaluating the knowledge, attitude, and practice of EBF among nursing mothers attending tertiary health institutions. While anecdotal evidence from health workers at the University of Benin Teaching

Hospital (UBTH) suggests varying levels of awareness and practice, systematic research is necessary to identify gaps, inform policy, and enhance breastfeeding promotion strategies. Understanding the unique socio-cultural and institutional dynamics within the UBTH context will provide valuable insights for designing effective and sustainable interventions aimed at improving EBF rates. Given these observations, this study aims to assess the knowledge, attitude, and practice of exclusive breastfeeding among nursing mothers attending the Infant Welfare Clinic at UBTH, Benin City. The findings will contribute to existing literature and help inform evidence-based policies and programs to enhance child health and nutrition outcomes in Nigeria.

1.2 Statement of problem

Exclusive breastfeeding (EBF), defined as feeding an infant only breast milk for the first six months of life without any additional food or drink, is a cornerstone of child survival, growth, and development. It is universally endorsed by the World Health Organization (WHO) and UNICEF as the optimal feeding practice during infancy (Wu et al., 2022). However, despite strong advocacy and public health messaging, the rate of exclusive breastfeeding in Nigeria remains significantly low. Many mothers initiate breastfeeding but fail to sustain it exclusively for the recommended six months (Adebayo et al., 2021). This discrepancy raises concerns about the effectiveness of breastfeeding education and support within clinical settings, particularly in tertiary healthcare institutions.

Globally, only about 44% of infants under six months are exclusively breastfed, far below the WHO's target of at least 50% by 2025 (Wu et al., 2022). The situation is even more critical in

sub-Saharan Africa, where cultural norms, inadequate maternal support, and lack of institutional policies hinder optimal breastfeeding practices (Ejie et al., 2021). In Nigeria, the 2018 Nigeria Demographic and Health Survey (NDHS) reported an EBF rate of approximately 29%, indicating a significant gap between recommended and actual practice (Adebayo et al., 2021). Studies have shown that while awareness of EBF may be relatively high, translating knowledge into practice remains a major challenge due to factors such as maternal employment, socio-cultural beliefs, perceived breastmilk insufficiency, and poor spousal or institutional support (Ibekwe et al., 2022; Elgzar et al., 2023). This context underscores the need for localized studies that can capture the specific barriers and enablers of EBF among mothers utilizing formal healthcare services, such as those at UBTH, Benin City.

The implications of low EBF rates are substantial. In a country with over 7 million births annually, a 29% EBF rate translates to millions of infants being deprived of the immunological and nutritional benefits of exclusive breastmilk (Hasan et al., 2021). The Infant Welfare Clinic at UBTH serves a large catchment population across Benin City and surrounding areas. Each month, hundreds of nursing mothers present with their infants for immunization, growth monitoring, and postnatal care—offering a critical opportunity for breastfeeding promotion. However, without accurate data on the knowledge, attitude, and practice of these mothers regarding EBF, targeted interventions cannot be effectively designed or implemented. This emphasizes the urgency of understanding the depth and nuances of the problem within this specific healthcare context.

The short- and long-term consequences of inadequate exclusive breastfeeding are alarming. Infants who are not exclusively breastfed are at higher risk of infections, including diarrhea

and pneumonia, which are among the leading causes of child mortality in Nigeria (Shi et al., 2021). Suboptimal breastfeeding practices also contribute to undernutrition, cognitive delays, and chronic health conditions later in life (Gebeyehu et al., 2023). From a maternal health perspective, not breastfeeding or early cessation is linked to increased risks of postpartum hemorrhage, breast and ovarian cancers, and reduced child-mother bonding (Mäkelä et al., 2023). Economically, the burden of treating illnesses preventable by breastfeeding adds strain to the already overstretched healthcare system. At a societal level, the continuation of poor EBF practices undermines Nigeria's ability to meet global targets, such as the Sustainable Development Goals related to health and nutrition (Sabo et al., 2023).

While national and regional surveys provide a general picture of breastfeeding practices, they often fail to account for local contextual realities and behavioral determinants, particularly in hospital settings. There is limited research exploring how knowledge, attitudes, and actual practices interact among nursing mothers attending tertiary healthcare facilities like UBTH. Moreover, studies in Nigeria often lack a comprehensive analysis of how institutional, cultural, and psychosocial factors intersect to influence EBF decisions (Tomori, 2021; Sokan–Adeaga et al., 2022). The role of maternal education, health literacy, family dynamics, and institutional breastfeeding support in urban, clinical settings has not been sufficiently investigated. This creates a gap in understanding how best to support mothers in sustaining EBF through practical, culturally sensitive, and evidence-based interventions.

To address this critical public health issue, this study aims to assess the knowledge, attitude, and practice of exclusive breastfeeding among nursing mothers attending the Infant Welfare Clinic at UBTH, Benin City. By identifying the key facilitators and barriers to EBF in this

specific population, the study intends to contribute to the existing body of evidence that can inform local breastfeeding promotion strategies. The findings will help guide policy makers, healthcare providers, and program implementers in designing interventions tailored to the unique needs of mothers in tertiary care settings. Ultimately, the study seeks to enhance EBF rates, reduce infant morbidity and mortality, and support Nigeria's broader public health and development goals.

1.3. Objectives of the Study

The general objective of this study is to assess the Knowledge, Attitude and Practice of nursing mothers attending infant welfare clinic towards exclusive breastfeeding in University Of Benin Teaching Hospital (UBTH), Edo State.

The Specific Objectives of this study are;

1. To assess the knowledge of exclusive breastfeeding among nursing mothers attending infant welfare clinic in UBTH.
2. To assess the attitude of nursing mothers towards exclusive breastfeeding at the infant welfare clinic, UBTH.
3. To ascertain the extent of the practices of exclusive breastfeeding among among nursing mothers attending infant welfare clinic in UBTH.
4. To identify the factors influencing the practice of exclusive breastfeeding among nursing mothers in infant welfare clinic in UBTH.

1.4 Research Questions

1. What is the the knowledge of exclusive breastfeeding among nursing mothers attending infant welfare clinic in UBTH?
2. What are the attitude of nursing mothers towards exclusive breastfeeding at the infant welfare clinic, UBTH ?

3. What are the practices of exclusive breastfeeding among among nursing mothers attending infant welfare clinic in UBTH?
4. What are the factors influencing the practice of exclusive breastfeeding among nursing mothers in infant welfare clinic in UBTH?

1.5 Research Hypothesis

1. There is no significant relationship between the knowledge of nursing mothers attending infant welfare clinic in UBTH and their practice of exclusive breastfeeding

1.6 Significance of the Study

To nursing profession

This study underscores the vital role nurses play in supporting and promoting exclusive breastfeeding. By assessing mothers' understanding and behaviors, we can identify specific knowledge gaps and misconceptions that hinder optimal breastfeeding practices. Recognizing these gaps allows us to develop targeted health education interventions that are tailored to the needs of the mothers we serve, thereby improving their confidence and capacity to practice exclusive breastfeeding. The research provides us with up-to-date, evidence-based insights that are invaluable for designing effective breastfeeding promotion strategies. Incorporating these findings into our antenatal and postnatal visits can help us better address cultural myths, misconceptions, and the practical challenges that mothers often face. As nurses, we are in a unique position to translate this knowledge into meaningful support, empowering mothers to succeed in their breastfeeding journey. This study also highlights the importance of strengthening our role as health educators and advocates. It encourages us to engage more actively in community outreach, home visits, and ongoing follow-up care—activities that are

crucial for fostering positive breastfeeding practices and improving maternal and child health outcomes. Furthermore, the insights gained should be integrated into our continuing professional development programs, ensuring we stay aligned with WHO guidelines, enhance our lactation management skills, and refine our counseling techniques. For less experienced and younger nurses, structured training, mentoring, and practical demonstrations are essential to build confidence and competence in breastfeeding promotion.

To Healthcare Providers

The findings from this study serve as a valuable foundation for strengthening our efforts toward promoting exclusive breastfeeding and creating a supportive environment for mothers and infants. They highlight existing gaps in knowledge, attitudes, and practices related to exclusive breastfeeding, which can be addressed through the establishment of dedicated, Baby-Friendly clinics. Furthermore, the study offers critical insights for the formulation and enforcement of policies aimed at reducing the early introduction of artificial foods—such as formula, water, or pap—before six months. It can guide hospitals and clinics to develop strict guidelines aligned with the Ten Steps to Successful Breastfeeding outlined in the Baby-Friendly Hospital Initiative (BFHI), and to promote adherence to WHO recommendations. Public health campaigns stemming from these policies can also help shift cultural attitudes, normalize exclusive breastfeeding, and regulate the marketing of breast milk substitutes, especially those not compliant with international standards. Such measures are vital to protecting infants from malnutrition, gastrointestinal infections, and long-term health complications associated with inadequate nutrition.

To Society

Exclusive breastfeeding offers profound benefits that extend beyond nourishing the infant—it plays a vital role in early development, health, and emotional bonding. It promotes sensory and cognitive development by providing essential nutrients like DHA and ARA, which are critical for the growth of the brain, vision, and nervous system. Research indicates that breastfed children tend to have slightly higher IQ scores and enhanced cognitive abilities as they grow. The physical closeness, eye contact, and skin-to-skin contact during breastfeeding also stimulate neural development and foster emotional security. Breastfeeding is a powerful tool in reducing the risk of obesity later in life. Breast milk contains hormones such as leptin and adiponectin that help regulate appetite and fat metabolism. Importantly, it encourages infants to eat based on their natural hunger cues, supporting healthy weight gain and promoting long-term metabolic health.

Moreover, breastfeeding strengthens the emotional bond between mother and child. The act of feeding triggers the release of oxytocin, a hormone that enhances maternal affection, reduces stress, and fosters feelings of love and security. This bond contributes significantly to the child's emotional development and provides a sense of safety and comfort. Breast milk, especially the first milk known as colostrum, is rich in immunoglobulins, particularly IgA, which form a protective barrier in the baby’s gut, nose, and throat. These antibodies help defend against common infections such as diarrhea, pneumonia, ear infections, and respiratory illnesses. Breastfed infants are also less prone to severe allergic reactions and autoimmune conditions. It also acts as a natural form of birth control, known as the Lactational Amenorrhea Method

(LAM). High levels of prolactin during exclusive breastfeeding suppress ovulation, often leading to the temporary absence of menstruation, which can protect against pregnancy in the first six months postpartum—making it a safe, natural family planning method in the early months. Finally, breastfeeding supports maternal well-being. The release of oxytocin and prolactin promotes relaxation, reduces stress, and can lower the risk of postpartum depression and anxiety. It helps women burn approximately 500 extra calories daily, aiding weight loss and easing the return to pre-pregnancy weight. Breastfeeding also reduces the risk of breast and ovarian cancers, type 2 diabetes, and osteoporosis, contributing to long-term health. Additionally, it eliminates the need for formula preparation, sterilization of bottles, and warming feeds, easing the physical and financial burdens on mothers.

To the Mother

This study is of great significance to mothers as it provides valuable insight into the importance and practice of exclusive breastfeeding during the first six months of life. Many mothers are aware of breastfeeding but lack a full understanding of its exclusive form, duration, and benefits. By identifying gaps in knowledge, attitude, and practice, this study will help to educate and sensitize mothers on how exclusive breastfeeding contributes to their own health and well-being. Through increased awareness, mothers will learn that exclusive breastfeeding: Promotes natural child spacing by delaying ovulation and menstruation (lactational amenorrhea). Reduces the risk of breast and ovarian cancers, as well as postpartum hemorrhage. Enhances the emotional bond between mother and child through frequent close

contact. Is cost-effective, eliminating the need for formula and feeding equipment, thereby reducing financial burden.

Encourages maternal confidence and satisfaction in caring for their infants.

Furthermore, this study will provide mothers with evidence-based information that dispels myths and cultural misconceptions surrounding exclusive breastfeeding. It will empower them to make informed feeding decisions regardless of social pressures or workplace challenges. The outcome will foster improved maternal self-efficacy, better health-seeking behavior, and stronger commitment to the practice of exclusive breastfeeding, ultimately enhancing both maternal and child health outcomes.

To the Child

The study is equally significant to the child, as exclusive breastfeeding is one of the most effective interventions for ensuring optimal growth, survival, and development during the early stages of life. By improving the mother's understanding and commitment to exclusive breastfeeding, the child benefits directly in numerous ways.

Exclusive breastfeeding provides complete nutrition, supplying all the essential nutrients, fluids, and energy a baby needs for the first six months. It strengthens the immune system,

reducing the risk of common childhood illnesses such as diarrhea, pneumonia, ear infections, and gastrointestinal disorders. It also promotes neurological and cognitive development, which has a positive impact on school readiness and intelligence later in life.

In addition, exclusive breastfeeding reduces infant mortality and malnutrition rates, especially in low- and middle-income settings. Breastfed infants have lower risks of allergies, obesity, and chronic diseases such as diabetes later in life. The physical closeness and warmth experienced during breastfeeding also contribute to the child's emotional stability and psychological development, promoting a sense of safety, attachment, and trust.

By highlighting these benefits, the study underscores the indispensable role of exclusive breastfeeding in achieving the Sustainable Development Goals (SDGs) related to good health, well-being, and reduced child mortality. The findings will serve as a foundation for developing effective strategies and interventions that promote breastfeeding-friendly environments for mothers and their babies.

1.7 Scope of the Study

This study is limited to assessing the knowledge, attitude, and practice of exclusive breastfeeding among nursing mothers attending the Infant Welfare Clinic at the University of Benin Teaching Hospital (UBTH), Benin City. It focuses on mothers with infants aged 0–6 months and explores factors influencing exclusive breastfeeding within this population

1.8 Operational Definition of Terms

Exclusive Breastfeeding (EBF):

The practice of feeding an infant only breast milk (including expressed milk) for the first

six months of life, without any additional food or drink, not even water, except for oral rehydration solution, drops, or syrups (vitamins, minerals, and medicines), as defined by the World Health Organization.

Knowledge:

The extent to which nursing mothers are aware of the recommended duration, benefits, and appropriate practices of exclusive breastfeeding, measured using structured questionnaire items assessing factual understanding.

Attitude:

The mothers' beliefs, feelings, and disposition toward exclusive breastfeeding, including their perception of its importance, convenience, and social acceptability, assessed using a Likert-scale–based questionnaire.

Practice:

The actual breastfeeding behavior of mothers, particularly whether they have exclusively breastfed their infants for the first six months, measured through self-reported responses.

Nursing Mothers:

Women attending the Infant Welfare Clinic at UBTH who have infants aged 0–6 months and are actively involved in breastfeeding.

Infant Welfare Clinic (IWC):

A unit within UBTH where preventive and promotive health services, including growth

monitoring, immunization, and breastfeeding counseling, are provided to infants and their mothers.

CHAPTER TWO

LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Definition of Exclusive Breastfeeding (EBF)

Exclusive breastfeeding (EBF) refers to the practice of feeding an infant only breast milk for the first six months of life, without giving any other foods or liquids, not even water. The only exceptions to this are oral rehydration solution (ORS), or drops and syrups of vitamins, minerals, or medicines prescribed by a healthcare provider (World Health Organization [WHO], 2021). Breast milk provides all the nutrients, energy, and antibodies an infant needs during the first six months of life, and it plays a critical role in the development of a child's immune system, reducing the risk of infections and chronic diseases later in life.

According to the United Nations Children's Fund (UNICEF), exclusive breastfeeding is considered a cornerstone of child survival and health. It is recommended that infants begin breastfeeding within the first hour of birth and continue to be exclusively breastfed for six months. After this period, complementary foods should be introduced while breastfeeding continues up to two years or beyond (UNICEF, 2022).

2.1.2 Importance of Exclusive Breastfeeding

Exclusive breastfeeding (EBF) for the first six months of life is widely recognized as one of the most effective interventions for promoting infant health, survival, and development. It has profound benefits not only for the child but also for the mother, the family, and society at large. Numerous global health authorities, including the World Health Organization (WHO) and

UNICEF, emphasize the importance of exclusive breastfeeding as a public health priority (WHO, 2021; UNICEF, 2022).

One of the most critical benefits of EBF lies in its role in reducing infant morbidity and mortality. Breast milk contains all the essential nutrients, antibodies, and hormones required for optimal growth and development during the first six months of life. It offers natural immunity, protecting infants from common childhood illnesses such as diarrhea, respiratory infections, and ear infections (Adebayo et al., 2021; Gebeyehu et al., 2023). The immunological properties of breast milk help in developing the infant's immune system, making it better equipped to fight infections and diseases.

In resource-limited settings, where access to clean water and adequate healthcare is often a challenge, EBF significantly reduces the risk of exposure to contaminated food and water sources. Studies in both urban and rural areas of sub-Saharan Africa have demonstrated a lower incidence of gastrointestinal diseases and malnutrition among exclusively breastfed infants (Ejie et al., 2021; Ibekwe et al., 2022). By minimizing exposure to pathogens, EBF contributes to lower hospitalization rates and reduces healthcare costs.

Moreover, exclusive breastfeeding has significant cognitive and developmental benefits. Infants who are exclusively breastfed have been shown to score higher on intelligence tests and exhibit better performance in school later in life compared to those who are not exclusively breastfed (Cozma-Petruţ et al., 2021; Laksono et al., 2021). The long-chain polyunsaturated fatty acids in breast milk are essential for brain development, visual acuity, and neurological function.

Exclusive breastfeeding also contributes positively to maternal health. It promotes faster postpartum recovery by stimulating the release of oxytocin, which helps the uterus return to its pre-pregnancy size and reduces postpartum bleeding. It can also delay the return of fertility, providing a natural method of birth spacing (Alyousefi, 2021; Martínez-Vázquez et al., 2022). In the long term, breastfeeding is associated with a reduced risk of developing breast and ovarian cancers, type 2 diabetes, and osteoporosis in mothers (Mäkelä et al., 2023).

Beyond health, EBF has economic and environmental advantages. It eliminates the need for formula, bottles, and other feeding equipment, thereby reducing household expenses and environmental waste. For low-income families, breastfeeding offers an affordable and sustainable source of nutrition, which can contribute to reducing poverty and promoting food security (Riaz et al., 2022; Hasan et al., 2021).

2.1.3 Recommended Duration and Practices of Exclusive Breastfeeding

Exclusive breastfeeding (EBF) refers to feeding an infant only breast milk, without any additional food or drink, not even water, for the first six months of life, except for oral rehydration solutions, drops, and syrups (vitamins, minerals, or medicines) when medically indicated (World Health Organization [WHO], 2021). This definition emphasizes that breast milk alone is sufficient to meet all of an infant's nutritional and hydration needs during this critical developmental period.

The WHO and UNICEF jointly recommend that infants be exclusively breastfed for the first six months of life, followed by the introduction of appropriate, safe, and nutritionally adequate

complementary foods while continuing breastfeeding up to two years of age or beyond (UNICEF, 2022; WHO, 2021). These guidelines are based on decades of global research and extensive evidence supporting the health and developmental benefits of this practice. The first six months are considered a "critical window" for child survival and development, during which EBF plays a crucial protective and nutritive role.

Breastfeeding should begin as early as possible after birth, ideally within the first hour of life—a practice known as "early initiation of breastfeeding." This early start helps stimulate milk production, promotes maternal-infant bonding, and enables the infant to receive colostrum—the first form of breast milk, which is rich in antibodies and vital nutrients (Alyousefi, 2021; Gohal et al., 2023). Colostrum acts as the infant's first immunization, preparing the immune system and offering protection against infections.

The practice of exclusive breastfeeding includes feeding on demand, both day and night, meaning that the infant is breastfed whenever they show signs of hunger. This approach encourages the natural establishment of the infant's feeding rhythm and helps to maintain adequate milk production (Gebeyehu et al., 2023). Importantly, the feeding process is not limited to nutritional benefits; it also fosters emotional security and attachment between mother and child.

To support optimal breastfeeding practices, the WHO promotes several strategies including the "Ten Steps to Successful Breastfeeding," which are implemented as part of the Baby-Friendly Hospital Initiative (BFHI). These steps emphasize the importance of educating mothers on breastfeeding techniques, avoiding the use of bottles or pacifiers in the early days, and

providing continued support through postnatal care and community-based programs (Mäkelä et al., 2023).

Complementary feeding is recommended to begin at six months of age, not before. At this stage, breast milk alone is no longer sufficient to meet the growing infant's nutritional requirements. However, breastfeeding should continue alongside the introduction of complementary foods, ideally up to two years of age or beyond (UNICEF, 2022). The continuation of breastfeeding during the complementary feeding period ensures a stable source of high-quality nutrients and immunological protection as the infant transitions to a more diverse diet.

Despite clear global guidelines, adherence to recommended breastfeeding practices remains a challenge in many regions due to factors such as cultural misconceptions, maternal employment, lack of family or healthcare support, and inadequate maternity leave policies (Hasan et al., 2021; Alissa & Alshareef, 2024). These challenges underscore the need for community education, policy reform, and institutional support to help mothers initiate and sustain exclusive breastfeeding.

2.1.4 Global and Local Guidelines on Exclusive Breastfeeding (EBF)

Exclusive breastfeeding (EBF) has been globally recognized as one of the most effective interventions for ensuring infant survival, growth, and development. To support and promote this practice, several international and national health organizations have established clear guidelines that emphasize the significance, duration, and implementation of exclusive

breastfeeding.

World Health Organization (WHO) Guidelines

The World Health Organization (WHO) recommends that infants be exclusively breastfed for the first six months of life. During this period, breast milk alone provides all the nutrients and fluids necessary for optimal growth and development, with the exception of prescribed medications or supplements such as vitamin D, iron, or oral rehydration solutions if medically indicated (WHO, 2021). After six months, WHO advises the introduction of nutritionally adequate and safe complementary foods, while continuing breastfeeding up to two years of age or beyond.

In addition to this core recommendation, WHO promotes the early initiation of breastfeeding within the first hour of birth, which enables the newborn to receive colostrum—the highly nutritious and immunologically rich "first milk." This practice not only supports neonatal immunity but also strengthens the mother-child bond and stimulates milk production (WHO, 2021). WHO further advocates for breastfeeding on demand, both during the day and night, and cautions against the use of bottles, pacifiers, and breast milk substitutes during the exclusive breastfeeding period unless medically necessary.

To support implementation, WHO launched the **Baby-Friendly Hospital Initiative (BFHI)** in collaboration with UNICEF. The BFHI outlines the “Ten Steps to Successful Breastfeeding,” which serve as a framework for health facilities to create environments that protect, promote, and support breastfeeding. These steps include staff training, education of pregnant women,

immediate skin-to-skin contact, and postnatal support for breastfeeding mothers (WHO & UNICEF, 2018).

United Nations Children's Fund (UNICEF) Guidelines

UNICEF aligns closely with WHO in promoting exclusive breastfeeding for the first six months of life. According to UNICEF (2022), breastfeeding is not just a feeding method but a foundation of lifelong health and development. UNICEF places strong emphasis on the role of communities, families, and governments in creating supportive environments for breastfeeding mothers. This includes advocating for paid maternity leave, breastfeeding-friendly public spaces, workplace policies that allow for breastfeeding breaks, and access to skilled lactation support.

UNICEF's global campaigns, such as the "First 1,000 Days" initiative, highlight the importance of optimal nutrition from conception through a child's second birthday—a period during which breastfeeding plays a critical role. UNICEF also works with countries to monitor breastfeeding indicators and improve national policies and programs aimed at increasing EBF rates.

Federal Ministry of Health (FMOH), Nigeria Guidelines

At the national level, the **Federal Ministry of Health (FMOH) in Nigeria** has adopted WHO and UNICEF recommendations and contextualized them within the Nigerian health system. The National Policy on Infant and Young Child Feeding (IYCF) promotes exclusive breastfeeding for the first six months of life, followed by continued breastfeeding up to two years or beyond with the introduction of appropriate complementary foods (FMOH, 2016).

The FMOH also supports the Baby-Friendly Initiative and encourages health facilities to become accredited as “Baby-Friendly” by implementing the Ten Steps to Successful Breastfeeding. Additionally, Nigeria's National Strategic Plan of Action for Nutrition emphasizes the integration of EBF promotion into maternal and child health programs, health worker training, and community outreach.

Furthermore, Nigeria has developed behavior change communication strategies to improve breastfeeding practices. These include community-based sensitization campaigns, the training of traditional birth attendants and community health workers, and media outreach to dispel harmful myths and encourage positive cultural practices related to breastfeeding.

Despite these efforts, Nigeria faces several challenges in achieving high rates of EBF. According to the 2018 Nigeria Demographic and Health Survey (NDHS), only 29% of infants under six months were exclusively breastfed (National Population Commission [NPC] & ICF, 2019). This statistic underscores the need for sustained efforts in health education, policy enforcement, and family support systems to improve compliance with national and international guideline

2.1.5 Knowledge of Exclusive Breastfeeding

Mothers’ knowledge of exclusive breastfeeding (EBF) plays a fundamental role in determining whether they will adopt and sustain the practice for the recommended duration. Knowledge of EBF encompasses an understanding of what the practice entails, its benefits to both the mother and child, the correct techniques, and the recommended duration. A mother who is well-

informed is more likely to practice EBF exclusively for the first six months, as recommended by the World Health Organization (WHO, 2020). However, the level of awareness and depth of understanding can vary significantly based on a range of factors, including maternal education, cultural context, and access to accurate health information.

Research indicates that while many mothers may have heard of exclusive breastfeeding, they often lack a full understanding of its meaning and importance. For instance, some believe that EBF allows the inclusion of water, herbal mixtures, or other supplementary feeds, which contradicts the standard definition (Okoroiwu et al., 2021; Gebretsadik et al., 2022). In many contexts, especially in low- and middle-income countries, misconceptions and traditional practices further obscure the concept of exclusive breastfeeding. Kartika et al. (2021) found that although mothers in West Indonesia were aware of EBF, many lacked the detailed knowledge required to implement it correctly.

Mothers acquire knowledge about EBF from a variety of sources. Health professionals remain the most credible and influential source, particularly when information is disseminated during antenatal and postnatal care visits (Gebeyehu et al., 2023; Rohini et al., 2022). Mass media, social media platforms, and community outreach programs also contribute significantly to spreading awareness. In some communities, peer support groups and family members—especially grandmothers and spouses—are pivotal in shaping breastfeeding behaviors (Agrawal et al., 2022; Luo et al., 2021). Nevertheless, the reliability and accuracy of information from non-professional sources may vary, contributing to persistent knowledge gaps.

Despite improvements in maternal education and increased outreach, notable gaps remain in mothers' understanding of the technical and health-related aspects of EBF. These gaps include the appropriate timing of breastfeeding initiation, the dangers of pre-lacteal feeds, signs of infant hunger and satiety, and strategies to maintain lactation despite challenges (Ali et al., 2023; Ibekwe et al., 2022). A study in Nigeria revealed that a significant proportion of mothers were unaware that breast milk alone is sufficient for an infant's nutritional needs in the first six months (Adebayo et al., 2021). Similarly, Sultana et al. (2022) reported that despite high awareness levels in Bangladesh, many mothers lacked in-depth knowledge of EBF benefits and techniques.

Addressing these knowledge gaps is essential for promoting optimal infant feeding practices. It requires structured, consistent, and culturally sensitive health education programs that not only inform but also empower mothers with the practical skills and confidence to exclusively breastfeed. By strengthening maternal knowledge through evidence-based interventions, the likelihood of achieving higher EBF rates and better infant health outcomes significantly increases.

2.1.6 Attitude Towards Exclusive Breastfeeding

The attitude of mothers towards exclusive breastfeeding (EBF) plays a pivotal role in determining whether they will practice it as recommended. Attitude refers to the mother's disposition—comprising her beliefs, perceptions, and emotional reactions—toward exclusive breastfeeding. A positive attitude often reflects a willingness to breastfeed exclusively, while a negative or ambivalent attitude may result in early cessation or mixed feeding practices.

These attitudes are influenced by a complex interplay of personal beliefs, cultural and religious values, as well as the broader social environment, including family and community dynamics.

Mothers' perceptions and beliefs about exclusive breastfeeding often stem from their understanding of its importance, convenience, and perceived adequacy for infant nourishment. Many mothers with a positive attitude toward EBF believe that breast milk alone is sufficient for their baby's growth and immunity in the first six months of life. They tend to view breastfeeding as a natural and nurturing process that strengthens the maternal bond (Elgzar et al., 2023). Conversely, mothers with negative perceptions may doubt the sufficiency of breast milk, fear weight loss in their babies, or perceive breastfeeding as physically demanding and socially restrictive—particularly in the context of work or public settings (Alissa & Alshareef, 2024; Gebretsadik et al., 2022). These negative attitudes may lead to early introduction of formula, water, or other complementary foods.

Cultural and religious beliefs significantly shape maternal attitudes toward EBF. In many societies, traditional beliefs promote the early introduction of herbal remedies, water, or prelacteal feeds, under the impression that such practices protect the infant from illnesses or cleanse their digestive system (Sosseh et al., 2023). In certain African and Asian contexts, colostrum—the nutrient-rich first milk—is sometimes viewed as dirty or harmful, leading to its rejection (Ejie et al., 2021). Religious values can either reinforce or hinder exclusive breastfeeding depending on interpretation. For instance, Islamic teachings support breastfeeding for up to two years, which can positively influence attitudes toward sustained breastfeeding. However, interpretations and practices vary across regions and can sometimes

conflict with WHO's recommendation of exclusive breastfeeding for only the first six months (Alyousefi, 2021).

The influence of family and community cannot be overstated. Husbands, grandmothers, and mothers-in-law often play dominant roles in infant feeding decisions. When family members strongly support EBF and actively encourage it, mothers are more likely to adopt and maintain the practice (Agrawal et al., 2022; Al Shahrani et al., 2021). On the other hand, if the family holds beliefs that contradict exclusive breastfeeding—such as the need to give water in hot weather or supplement with formula—the mother may feel pressured to conform, even if she initially intended to breastfeed exclusively. Community norms and social networks also contribute to shaping maternal attitudes, particularly in settings where breastfeeding in public may be stigmatized or viewed as inappropriate.

2.1.7 Practice of Exclusive Breastfeeding

The practice of exclusive breastfeeding (EBF) refers to the actual behavior of feeding an infant solely with breast milk, without introducing water, other liquids, or solid foods, for the first six months of life. While global health organizations such as the World Health Organization (WHO) and UNICEF advocate for EBF due to its numerous health benefits, actual adherence to this recommendation varies significantly across regions and populations. Reported practices of EBF are often influenced by a range of personal, social, and structural factors that can either facilitate or hinder a mother's ability to exclusively breastfeed her infant.

Reported rates of EBF differ across communities, often influenced by maternal knowledge, access to healthcare, and socioeconomic conditions. In many settings, while awareness of EBF may be relatively high, actual practice remains suboptimal. Studies have shown that even among mothers who express positive attitudes toward EBF, many introduce supplementary feeds before the recommended six months (Adebayo et al., 2021; Sabo et al., 2023). This gap between knowledge and practice is commonly due to misinformation, perceived breast milk insufficiency, or social pressures. For example, a mother may know the benefits of EBF but still introduce water or cereal early due to fear that the child is not getting enough nutrition or because of advice from elders or peers (Okoroiwu et al., 2021).

There are numerous barriers that prevent the successful practice of exclusive breastfeeding. These include physical challenges such as sore nipples, engorgement, or inadequate milk supply; psychological factors like postpartum depression or lack of confidence; and social constraints such as lack of partner or family support. Cultural beliefs also play a significant role—many mothers discontinue EBF due to traditions that encourage giving newborns herbal concoctions or water, especially in hot climates (Ejie et al., 2021; Sosseh et al., 2023). Furthermore, lack of practical breastfeeding skills or inadequate counseling during and after delivery can result in poor feeding techniques, leading mothers to abandon EBF prematurely (Gebeyehu et al., 2023).

Conversely, several facilitators can support the practice of EBF. These include effective antenatal and postnatal education, peer counseling, strong family and partner support, and access to baby-friendly health facilities. Positive healthcare worker attitudes and proper

breastfeeding demonstrations also encourage adherence to EBF guidelines. Community support groups and mother-to-mother education programs have been found to be particularly effective in promoting and sustaining exclusive breastfeeding (Rohini et al., 2022; Martínez-Vázquez et al., 2022).

Workplace and broader societal influences also significantly impact a mother's ability to practice exclusive breastfeeding. Returning to work after childbirth is one of the most cited reasons for discontinuing EBF. Many workplaces, especially in low- and middle-income countries, lack breastfeeding-friendly policies such as paid maternity leave, flexible working hours, lactation rooms, or designated breaks for expressing milk (Ibekwe et al., 2022; Ickes et al., 2021). Societal norms that stigmatize breastfeeding in public further discourage mothers from breastfeeding outside the home, leading to reliance on formula or early weaning. On the other hand, societies that normalize and support public breastfeeding, alongside legislation protecting maternity rights, tend to have higher rates of EBF.

2.1.8 Factors Influencing Exclusive Breastfeeding

The practice of exclusive breastfeeding (EBF) is shaped by a variety of factors, which include socio-demographic characteristics, support from healthcare providers, the availability of maternity leave, and socio-cultural influences. Understanding these factors is crucial in addressing the barriers to EBF and enhancing its practice among mothers.

Socio-demographic Variables

Socio-demographic characteristics such as a mother's age, education level, occupation, and

income significantly influence her ability to exclusively breastfeed. Age, for example, can affect both knowledge and experience with breastfeeding. Younger mothers may have less experience or may be less informed about the benefits of EBF, which can lead to early introduction of complementary foods. In contrast, older mothers who have had previous children or who are more knowledgeable about breastfeeding may be more likely to engage in EBF (Adebayo et al., 2021).

Education plays a vital role in promoting breastfeeding. Studies have consistently shown that higher maternal education levels correlate with increased rates of EBF. Educated mothers are more likely to be aware of the benefits of EBF and the recommended duration. They are also more likely to have access to reliable information and be able to critically assess the advice they receive (Kebo et al., 2021; Adebayo et al., 2021). Occupation is another important factor; working mothers often face challenges in practicing EBF due to time constraints, lack of breastfeeding-friendly workplaces, or the pressure to return to work soon after childbirth. Mothers in higher-income brackets may have more resources to support breastfeeding, including access to lactation consultants or the ability to take extended maternity leave, whereas mothers in lower-income groups may struggle to meet basic needs, leaving breastfeeding as a less prioritized activity (Riaz et al., 2022; Sabo et al., 2023).

Healthcare Provider Support

Support from healthcare providers is a critical factor in the successful practice of EBF. Mothers who receive consistent, accurate, and supportive breastfeeding counseling from healthcare professionals are more likely to practice EBF. Research shows that healthcare workers can

either positively or negatively influence breastfeeding practices, depending on the information they provide and the level of encouragement they offer (Elkhalik et al., 2022). For instance, midwives, doctors, and nurses who advocate for the benefits of EBF and assist mothers with techniques such as proper latch and positioning are pivotal in overcoming early challenges that may lead to the early cessation of breastfeeding. Conversely, a lack of support, misinformed advice, or the encouragement to use formula feeding can lead to early discontinuation of breastfeeding (Sultan et al., 2022).

Availability of Maternity Leave

The availability of maternity leave is one of the most important structural factors influencing exclusive breastfeeding. Paid maternity leave allows mothers to stay home with their infants, which is essential for establishing and maintaining exclusive breastfeeding. Without the pressure to return to work, mothers can focus on the physical and emotional needs of breastfeeding, as well as adjust to the demands of nursing. Several studies have shown that countries with more generous maternity leave policies tend to have higher rates of EBF (Ickes et al., 2021).

In contrast, in countries or regions where maternity leave is short or unpaid, mothers often face the difficult choice between returning to work and continuing to breastfeed. The need to return to work early after childbirth can disrupt the establishment of breastfeeding and may encourage mothers to supplement with formula or other foods. Inadequate maternity leave can also contribute to a lack of knowledge about EBF, as mothers may not have the time to attend breastfeeding support programs or appointments with healthcare providers (Alyousefi, 2021).

Socio-cultural Influences

Socio-cultural influences play a significant role in shaping maternal attitudes and behaviors towards breastfeeding. Cultural beliefs, social norms, and family traditions often dictate whether or not a mother practices EBF. In some cultures, there is a strong tradition of introducing complementary foods early, such as porridge or herbal remedies, even though they are not recommended for infants before six months. These practices may be rooted in beliefs that breast milk is insufficient or that introducing other foods is necessary for the child's health (Sosseh et al., 2023).

Religious and cultural beliefs may also influence attitudes towards breastfeeding in public or the decision to breastfeed at all. In some societies, modesty norms may make it difficult for mothers to breastfeed in public, which may discourage them from breastfeeding exclusively or in public spaces (Adebayo et al., 2021). Additionally, in communities where there is a preference for formula feeding or the use of traditional weaning practices, mothers may feel social pressure to conform to these practices despite the health benefits of EBF.

Family dynamics, particularly the role of the father or other family members, can also impact breastfeeding practices. In some cultures, fathers may be less involved in feeding practices, leaving mothers to bear the sole responsibility for feeding and child-rearing. However, in other contexts, active support from fathers and extended family members can enhance a mother's confidence in breastfeeding, provide emotional support, and help manage practical issues such as breastfeeding schedules and infant care (Agrawal et al., 2022).

2.2 Theoretical Review

The study adopted health belief model. The Health Belief Model (HBM) is a psychological model developed in the 1950s by social psychologists Hochbaum, Rosenstock, and Kegels working in the U.S. Public Health Service. It was originally created to explain why people fail to adopt disease prevention strategies or screening tests for the early detection of disease. Over time, it has evolved into one of the most widely used frameworks for understanding health behaviors, particularly those involving individual decision-making, such as exclusive breastfeeding.

The HBM postulates that a person's likelihood of engaging in a health-promoting behavior is influenced by several key perceptions:

1. **Perceived Susceptibility**

   This refers to an individual's belief about the risk of experiencing a health problem. In the context of exclusive breastfeeding (EBF), a mother’s belief about how likely her child is to suffer from illness, malnutrition, or infections if not exclusively breastfed plays a vital role in her decision-making process.

2. **Perceived Severity**

   This deals with the perceived seriousness of the consequences of a health condition. A mother who believes that not practicing EBF could lead to severe health problems for her infant (such as stunted growth, increased morbidity, or weakened immunity) is more likely to adhere to the recommended practice.

3. **Perceived Benefits**

   This involves the individual's belief in the efficacy of the recommended health behavior in reducing the risk or severity of the condition. Mothers who understand the numerous benefits of EBF—such as enhanced immunity, improved cognitive development, and a stronger maternal-infant bond—are more likely to initiate and sustain exclusive breastfeeding.

4. **Perceived Barriers**

   These are the perceived obstacles or difficulties that might prevent an individual from adopting the behavior. Common barriers to EBF include breast pain, perceived insufficient milk supply, early return to work, lack of family or social support, and cultural practices that encourage early introduction of water or complementary foods.

5. **Cues to Action**

   Cues to action are the triggers that prompt the decision to take action. These could be internal cues such as a baby crying or showing signs of hunger, or external cues such as advice from healthcare providers, educational campaigns, peer encouragement, or support from spouses and relatives.

6. **Self-efficacy**

   Self-efficacy refers to the confidence in one's ability to successfully carry out a behavior. A mother who feels confident in her ability to breastfeed, manage breastfeeding challenges, and deal with social pressures is more likely to practice EBF. This concept was added later to the original HBM to improve its predictive power for complex behaviors like breastfeeding.

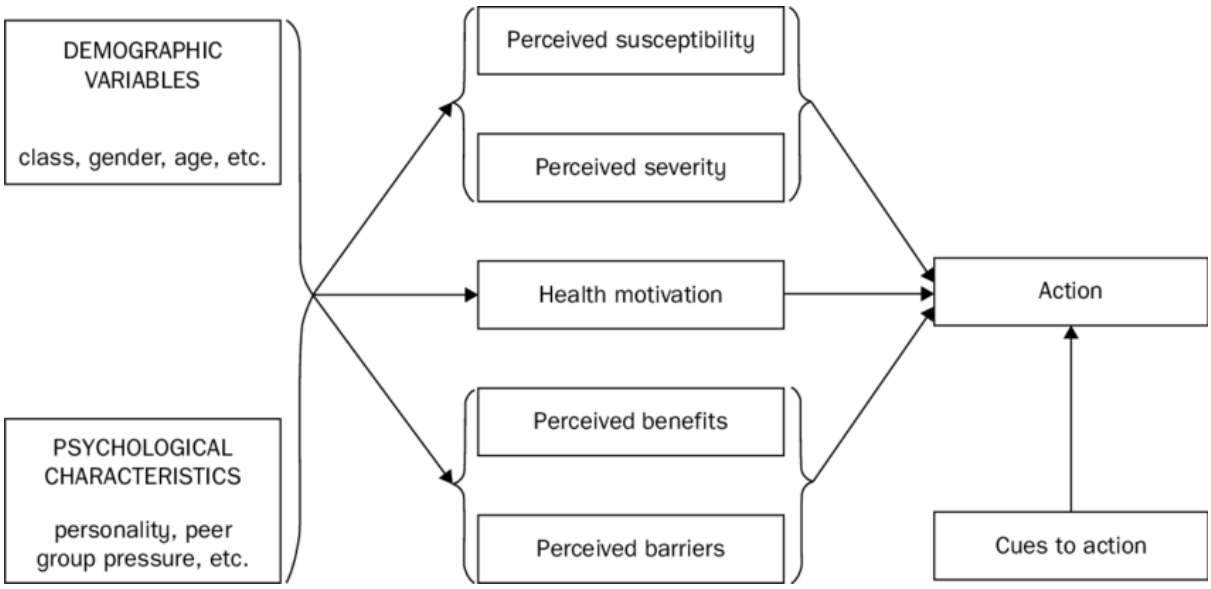

Figure 2.1: The Health Belief Model (HBM)

2.3 Application of the theory

The Health Belief Model (HBM) provides a useful theoretical framework for understanding the behaviors and decision-making processes of nursing mothers regarding exclusive breastfeeding (EBF). This model, which is based on the premise that health-related behavior is influenced by individual beliefs about health conditions and the perceived benefits and barriers to taking action, can be applied to each of the specific objectives of the study conducted among nursing mothers at the Infant Welfare Clinic of the University of Benin Teaching Hospital (UBTH).

In relation to the first objective — to assess the knowledge of exclusive breastfeeding among nursing mothers — the Health Belief Model emphasizes the importance of perceived susceptibility and perceived severity. A mother's level of knowledge about EBF directly

influences how she perceives the risks of not breastfeeding exclusively. For example, a mother who understands that failure to exclusively breastfeed may lead to malnutrition or increased risk of infection in her child is more likely to perceive the condition as severe and believe that she and her infant are susceptible to such health risks. Thus, the more informed a mother is about the benefits of EBF and the consequences of not practicing it, the more likely she is to adopt and sustain the practice. Knowledge, therefore, acts as the foundation upon which other beliefs and behaviors are formed.

The second objective — to assess the attitude of nursing mothers towards exclusive breastfeeding — aligns with the HBM constructs of perceived benefits and perceived barriers. A positive attitude toward EBF is often grounded in the belief that it contributes to the well-being and development of the child. Conversely, negative attitudes may stem from perceived challenges such as physical discomfort, time constraints, social stigma, or lack of family support. The model explains that when the perceived benefits outweigh the perceived barriers, individuals are more likely to engage in a health-promoting behavior. Therefore, understanding mothers' attitudes through this model allows researchers to determine whether their beliefs are motivating or discouraging EBF.

The third objective — to evaluate the practices of exclusive breastfeeding among nursing mothers — can be analyzed through the HBM concepts of cues to action and self-efficacy. Cues to action are triggers that encourage a person to engage in a health behavior. For mothers, these may include advice from healthcare providers, health education during antenatal visits, or support from family and peers. Self-efficacy, which refers to the confidence a mother has in

her ability to exclusively breastfeed, is also a critical factor in whether she follows through with the practice. Even with adequate knowledge and a positive attitude, low self-efficacy can prevent action. For instance, a mother may know the benefits of EBF but feel incapable of maintaining it due to fatigue, workplace pressure, or lack of support. These elements all influence whether or not the behavior is consistently practiced.

The fourth objective — to identify the factors influencing the practice of exclusive breastfeeding — incorporates the modifying variables of the Health Belief Model. These variables include demographic characteristics such as age, education, income, and occupation, which shape perceptions and accessibility to health-promoting behaviors. A mother's educational level may enhance her understanding of health messages, while her occupation and maternity leave policies can impact her ability to breastfeed exclusively. Cultural beliefs, religious practices, and social norms also play a significant role in shaping health behavior. Furthermore, support from healthcare providers and the broader community acts as a cue to action that can either encourage or hinder EBF. The model thus provides a comprehensive lens through which these complex, interacting factors can be examined.

2.4 Empirical Review

Knowledge of exclusive breastfeeding among nursing mothers

In a study conducted by Ali et al. (2023) on "Assessment of Mothers' Attitudes and Knowledge about Breastfeeding in Thi-Qar City, Iraq," the researchers sought to evaluate mothers' understanding and perception of breastfeeding. The study adopted a cross-sectional design and was carried out at a hospital in Nasiriyah, Iraq, between January and February 2023. A total of

192 mothers participated in the study, selected using a convenience sampling technique. Data were collected using a structured questionnaire adapted from the United Nations Food and Agriculture Organization (FAO), which included socio-demographic details and assessed the mothers' cognitive and attitudinal perspectives towards breastfeeding. The findings revealed that a majority of the mothers were young (53.6% aged 18–20), most (45.3%) had completed at least elementary education, and 79.17% resided in urban areas. Additionally, about half of the mothers were unemployed. The study concluded that mothers had good knowledge and a positive attitude towards breastfeeding. The authors emphasized that maternal knowledge and attitude play a pivotal role in improving infant health outcomes.

Similarly, Gebeyehu et al. (2023) conducted a systematic review and meta-analysis to determine the pooled estimates of Ethiopian women's knowledge, attitudes, practices, and determinants of exclusive breastfeeding. This study involved a comprehensive search of databases including PubMed, Scopus, ScienceDirect, Google Scholar, and institutional repositories, ultimately including 33 eligible studies with a combined sample size of 13,397 participants. The data were analyzed using STATA version 14, with assessments for publication bias and heterogeneity. The results indicated a pooled prevalence of good knowledge at 74.2% and a positive attitude at 77.2%, although the practice rate remained low at 58.3%. The highest levels of knowledge were reported in institutional-based studies. The study also identified maternal education, being a housewife, vaginal delivery, delivery in health facilities, and antenatal care attendance as significant predictors of exclusive breastfeeding. The authors concluded that while Ethiopian women generally exhibit good knowledge and

favorable attitudes towards exclusive breastfeeding, there is still a considerable gap in practice, necessitating strengthened maternal and child health services.

In a study conducted by Kartika et al. (2021) on "The Relationship between Mothers' Knowledge and Exclusive Breastfeeding Behavior," the researchers investigated how maternal knowledge influences breastfeeding practices. The study employed a cross-sectional design and was carried out in both inpatient and outpatient departments. Using an accidental sampling technique, 150 mothers were recruited during the months of June to July 2019. Data were analyzed using univariate and bivariate (Chi-square) methods. The findings revealed a statistically significant association between mothers' knowledge and exclusive breastfeeding behavior ($p = 0.011$). Specifically, mothers with lower knowledge were 2.56 times less likely to practice exclusive breastfeeding. The study concluded that health education on exclusive breastfeeding should be initiated during the prenatal period and continued postnatally, suggesting that further research should also explore the role of spousal and sociocultural support systems.

Similarly, Kristina et al. (2023) conducted a quantitative descriptive study in Indonesia aimed at assessing maternal knowledge of exclusive breastfeeding among mothers of toddlers. The findings showed that 56.7% of the respondents had good knowledge of exclusive breastfeeding. The authors linked this to the educational level of the respondents, noting that most had attained at least a high school education. The study concluded that higher educational attainment enhances knowledge, as educated mothers are better able to access, comprehend, and apply health-related information regarding breastfeeding.

In another related study, Okoroiwu et al. (2021) examined the Knowledge, Attitude, and Practice (KAP) of Exclusive Breastfeeding among women attending antenatal clinics in four communities within the Gwagwalada Area Council of Abuja, Nigeria. The study utilized a structured questionnaire to collect data on socio-demographic characteristics, religious and cultural influences, and knowledge of exclusive breastfeeding. Data analysis involved frequencies, percentages, and odds ratios. The results indicated that 70% of respondents had good knowledge of exclusive breastfeeding, while 54.4% practiced it exclusively for the first six months. Additionally, 70% believed that breast milk alone was sufficient for a baby's nutritional needs during that period. Despite the high level of awareness, the study noted that illiteracy (OR = 1.5) and cultural beliefs (OR = 2.0) negatively affected breastfeeding practices. The authors concluded that although knowledge and attitude levels were high, the actual practice remained suboptimal, calling for community-based education interventions involving not just mothers and health workers, but also husbands and elder caregivers.

To assess the attitude of nursing mothers towards exclusive breastfeeding at the infant welfare clinic, UBTH

In a study conducted by Elgzar et al. (2023) on "Maternal Ideation as a Predictor of Exclusive Breastfeeding Practices among Saudi Nursing Mothers," the researchers explored the role of maternal attitudes and perceptions—collectively referred to as maternal ideation—in shaping exclusive breastfeeding (EBF) behavior. This correlational cross-sectional study was carried out at the Maternal and Children's Hospital in Najran, Saudi Arabia, and involved 403 Saudi nursing mothers with healthy infants aged 6–12 months. The study used structured questionnaires comprising demographic data, EBF practice scales, and maternal ideation

measures, and was conducted between November 2022 and January 2023. The results revealed that 60.8% of mothers had satisfactory EBF practices, while 68.2% had adequate knowledge and 63.5% held positive beliefs about exclusive breastfeeding. Notably, 81.4% of the women exhibited high self-efficacy in EBF, indicating strong psychological readiness and confidence in their ability to breastfeed exclusively. Social support was also significant; 39.2% identified healthcare providers and 30.5% identified husbands as their primary sources of influence. The study concluded that maternal ideation constructs—knowledge, beliefs, self-efficacy, and social norms—were all significant positive predictors of satisfactory exclusive breastfeeding practices. Additionally, maternal demographics such as age, occupation, and education level were also found to be significant predictors. The authors emphasized the importance of designing interventions based on these psychological and social dimensions to promote exclusive breastfeeding.

In another relevant study, Mäkelä et al. (2023) evaluated the impact of implementing the Baby-Friendly Hospital Initiative (BFHI) on exclusive breastfeeding rates and maternal attitudes in a maternity hospital. The researchers used a quasi-experimental, non-equivalent two-group design involving two separate samples of postpartum mothers: 162 participants before the intervention and 163 after. Breastfeeding status and potential challenges were assessed through text-message surveys at 2 weeks, 1 month, 4 months, and 6 months postpartum, while maternal attitudes toward breastfeeding were measured using the Iowa Infant Feeding Attitude Scale at the hospital and again at 4 months post-birth. Contrary to expectations, the results showed no significant change in exclusive breastfeeding rates at 6 months (41.3% before vs. 52.9% after the intervention, $p = 0.435$), and the frequency of breastfeeding problems ($p = 0.260$) and

maternal attitudes ($p = 0.354$) also remained statistically unchanged. However, the study found that more favorable maternal attitudes ($p < 0.001$) and fewer breastfeeding problems ($p < 0.001$) were strongly associated with successful exclusive breastfeeding. The authors concluded that while BFHI implementation alone may not significantly raise EBF rates when baseline rates are already high, ongoing support before and after delivery, including education on managing breastfeeding challenges, is critical to maintaining positive attitudes and improving breastfeeding outcomes.

In a study conducted by Sarhan (2023) on "Psychological Factors, Attitudes, and Behaviors Influencing Exclusive Breastfeeding among Nursing Mothers in Palestine", the researcher assessed how psychological health and maternal attitudes influenced exclusive breastfeeding (EBF) among nursing mothers. The study adopted a quantitative cross-sectional design and was carried out in the maternal and child health clinics of the Palestinian Ministry of Health (PMoH), located in the northern West Bank. A convenience sampling technique was employed to recruit 368 nursing mothers, who responded to a self-reported questionnaire comprising the Arabic versions of the Depression, Anxiety, and Stress Scale (DASS-21) and the Breastfeeding Behavior Questionnaire (BBQ). Data were analyzed using SPSS version 24. Findings showed alarming psychological burdens among participants, with 50.8% reporting postpartum depression, 59.8% anxiety, and 68.5% stress. The study revealed that mothers with infants aged between 2–4 months were significantly more likely to experience depressive and anxious attitudes toward EBF ($p = 0.03$, OR = 1.66; $p = 0.00$, OR = 2.12, respectively). In addition, mothers who weighed less than 50 kg and those whose husbands were aged between 31 and 40 years showed a higher likelihood of stress ($p = 0.04$). A major highlight was that 76.1% of

participants expressed negative attitudes and behaviors toward exclusive breastfeeding. Sociodemographic factors such as low monthly income and maternal age under 18 years were significantly associated with poor EBF attitudes and behaviors ($p < 0.05$). The study concluded that psychological challenges and negative perceptions toward EBF are prevalent among Palestinian nursing mothers, emphasizing the need for mental health screening and targeted educational interventions.

In a qualitative ethnographic study, Sosseh et al. (2023) investigated the cultural beliefs, attitudes, and perceptions of lactating mothers towards exclusive breastfeeding in The Gambia. Conducted between July and October 2014, the study engaged 22 breastfeeding mothers with infants aged 4–6 months from government health facilities in the Kanifing Municipality. Using in-depth face-to-face interviews and moderate participant observation, the researchers identified six major cultural themes influencing breastfeeding behaviors. Mothers reported restrictive traditional dietary beliefs, such as avoiding green leafy vegetables and hot liquids to protect the infant's health. Physical discomforts, such as nipple inflammation and back pain, were perceived as consequences of exclusive breastfeeding, leading some mothers to reduce frequency or stop prematurely. A strong cultural belief in the necessity of giving water or charm water to protect infants spiritually or physically was cited as a major barrier to EBF. Some mothers also doubted their breast milk's adequacy, associating it with breast size, and believed in starting prelacteal feeds early to build physical strength in male infants. The study concluded that deep-rooted cultural beliefs and attitudes significantly challenge the adoption of WHO/UNICEF recommendations for exclusive breastfeeding. It emphasized the need for

culturally adaptive interventions that respect local values while promoting optimal breastfeeding practices.

Similarly, Agrawal et al. (2022) highlighted the critical role of paternal attitudes and family support in shaping mothers' breastfeeding behaviors. While the study was a narrative review rather than primary research, it drew from global evidence to emphasize that fathers' knowledge, attitudes, and involvement are powerful determinants of successful EBF. The study argued that partners influence not only breastfeeding initiation but also its duration and continuity, especially in the early postnatal period. The perception a mother holds of her partner's attitude significantly influences her subjective decision to continue breastfeeding exclusively. The authors recommended that future interventions should involve not only mothers but also their spouses, particularly newly married couples, to maximize EBF support. They identified household power structures and traditional gender roles as barriers to male involvement, but suggested that even indirect support—such as sharing household chores, caring for older children, or helping with newborn care—could positively influence maternal breastfeeding attitudes and behaviors.

To evaluate the practices of exclusive breastfeeding among nursing mothers attending infant welfare clinic in UBTH

In a study carried out by Ibekwe et al. (2022) on "Challenges of Exclusive Breastfeeding Among Working-Class Mothers in Nnamdi Azikiwe University Teaching Hospital, Nnewi, Nigeria", the researchers examined the attitudes of working mothers towards exclusive breastfeeding (EBF) and identified the socio-economic determinants that influence its practice.

The study employed a descriptive survey design, which allowed the researchers to observe and document mothers' breastfeeding behaviors and perceptions. A total of 120 working mothers who met the inclusion criteria and were available at the time of data collection participated in the survey. The data were analyzed using SPSS version 12.0, and socio-demographic characteristics were cross-tabulated. The findings revealed that while many of the mothers were aware of EBF and its benefits, their attitudes towards practicing it were significantly affected by work-related constraints, particularly the lack of institutional support for breastfeeding in the workplace. Time constraints, limited maternity leave, and the absence of breastfeeding-friendly policies contributed to mothers' challenges in adhering to exclusive breastfeeding recommendations. The study concluded that positive attitudes alone are insufficient; structural and workplace support is critical to improving EBF rates among employed mothers.

Similarly, Ickes et al. (2021) conducted a qualitative study in Naivasha, Kenya, exploring the factors that influence exclusive breastfeeding for six months among mothers employed in commercial agriculture and tourism sectors. The study involved a broad range of stakeholders, including 42 employed mothers, their alternate caregivers and husbands (n = 20), healthcare providers (n = 21), daycare directors (n = 22), and managers of flower farms and hotels (n = 16). Data were gathered through interviews and analyzed thematically. The findings showed that while mothers and employers acknowledged the health importance of EBF, returning to work prompted early cessation of breastfeeding. Managers reported offering flexible schedules, yet the lack of workplace lactation spaces and on-site childcare severely limited EBF continuation. Although some stakeholders supported the idea of breast milk expression to maintain EBF, most mothers lacked the knowledge, experience, or support to express milk

effectively. Recommendations emerging from the study included extending maternity leave, improving breastfeeding education, creating lactation rooms, and providing on-site daycare. The study concluded that employed mothers face considerable structural barriers to EBF, and without workplace-centered interventions, maintaining exclusive breastfeeding for the recommended six months remains largely unattainable.

In a study conducted by Otim et al. (2022) on "Factors Influencing Mothers' Choices of Infant Feeding Practices in Mulago Hospital, Kampala", the researchers aimed to examine the determinants of infant feeding choices among mothers, particularly focusing on exclusive breastfeeding (EBF). The study adopted a mixed-methods approach and involved 362 lactating mothers and health workers attending Mulago Hospital. Participants were selected using a simple random sampling technique, and data were analyzed using EpiInfo and SPSS, with findings presented descriptively. The results revealed that socio-demographic factors such as age and educational level significantly influenced mothers' decisions to exclusively breastfeed. Most mothers gained awareness of EBF through health centers, which created an information gap for those unable to access such services. Alarmingly, 43% of health workers were unaware of Uganda's Young and Infant Feeding Policy Guidelines, indicating a gap in healthcare provider knowledge. The study concluded that to improve EBF rates in Uganda, it is crucial to strengthen community health systems and provide comprehensive training for health workers on national breastfeeding policies.

Similarly, Jebena and Tenagashaw (2022) conducted a community-based cross-sectional study to assess breastfeeding practices and the determinants of exclusive breastfeeding among

mothers of six-month-old infants in Horro District, Ethiopia. A total of 649 mothers were selected using a multi-stage sampling procedure, and data collection was carried out through face-to-face interviews using a semi-structured questionnaire between March 15 and April 5, 2020. Data were analyzed using bivariable and multivariable logistic regression models.

The findings showed that 70.4% of mothers practiced exclusive breastfeeding, and 61.8% initiated breastfeeding within 24 hours of birth. Factors significantly associated with EBF included receiving breastfeeding information during antenatal care (AOR = 4.15), attending postnatal follow-up (AOR = 4.74), having younger infants aged 0–1 month (AOR = 12.14), and initiating breastfeeding within one hour of birth (AOR = 1.94). Low household income and single births were also significant predictors. The study concluded that although the region met some global nutrition targets, EBF rates remained below WHO recommendations, and educational interventions during antenatal and postnatal care were essential to improve breastfeeding practices.

In another study, Muluneh (2023) utilized data from the 2016 Ethiopian Demographic and Health Survey (EDHS) to identify the predictors of exclusive breastfeeding among Ethiopian mothers. A total of 1,066 mothers were included, and data were analyzed using a binary logistic regression model, with results presented as adjusted odds ratios (AORs) at a 95% confidence interval.The prevalence of exclusive breastfeeding among infants under six months was found to be 58%. Significant predictors of EBF included maternal age between 25–34 years (AOR = 1.74), being married (AOR = 1.26), maternal and paternal secondary education or higher (AORs = 2.00 and 1.70, respectively), media access (AOR = 1.77), and health facility deliveries

(AOR = 1.87). On the other hand, residing in rural areas (AOR = 0.66), higher wealth index (AOR = 0.35), and increased number of children (AOR = 0.49) were negatively associated with EBF. Geographical disparities were also found, with significantly higher odds of EBF among mothers living in regions such as Afar, Somali, and Addis Ababa. The study concluded that EBF prevalence remains low in Ethiopia, and interventions should target identified socio-demographic and geographic predictors through community education and policy reform

To identify the factors influencing the practice of exclusive breastfeeding among nursing mothers in infant welfare clinic in UBTH

In a study carried out by Adebayo et al. (2021) on "Prevalence and Predictors of Exclusive Breastfeeding among Mothers in a Semi-urban Nigerian Community," the authors aimed to assess both the prevalence and factors influencing exclusive breastfeeding (EBF) practices. The researchers employed a cross-sectional study design and gathered data from nursing mothers attending the immunization clinic at the Federal Medical Centre, Owo, Ondo State, Nigeria. A semi-structured questionnaire based on World Health Organization (WHO) indicators for breastfeeding assessment was used for data collection. A total of 386 mothers participated in the study, with a mean age of 30.8 years. The study found that 52.6% of the mothers practiced exclusive breastfeeding. It was noted that 67.1% initiated breastfeeding immediately after delivery, and the majority (78.3%) introduced natural feeds after six months. Mothers aged 30 and above had a significantly higher likelihood of practicing EBF (62.1%) compared to younger mothers (48.3%) ($p = 0.012$). Additionally, women with four or more children were more likely to practice EBF (70.3%) than those with fewer children (54.2%) ($p = 0.020$). Although adjusted odds suggested a 36% higher chance of EBF among older mothers,

the result was not statistically significant ($p = 0.160$). The authors concluded that to meet WHO targets on EBF, stronger advocacy and maternal health education are essential.

In a study conducted by Alissa and Alshareef (2024) on "Factors Influencing Exclusive Breastfeeding Practices in Makkah, Saudi Arabia," the authors explored the determinants of EBF among mothers attending the Maternity and Childhood Hospital in Makkah. A descriptive cross-sectional design was used, involving 340 mothers. The study focused on understanding demographic variables and postpartum practices that influence breastfeeding. The results emphasized that early initiation of breastfeeding and pre-birth breastfeeding education significantly improved the duration of exclusive breastfeeding. Furthermore, mode of delivery had a notable influence, with mothers who had Cesarean sections less likely to sustain EBF compared to those who delivered vaginally. The study concluded that health education and timely support from healthcare professionals are critical in improving EBF duration, and these findings should inform both policy and practice.

Similarly, Al Shahrani et al. (2021) conducted a prospective observational study to evaluate exclusive breastfeeding rates and associated risk factors for early cessation in King Abdullah bin Abdulaziz University Hospital, Riyadh, Saudi Arabia. The study included 136 postpartum women who had delivered full-term, singleton, healthy newborns and were breastfeeding prior to hospital discharge. Data were collected at three points: before discharge, at 2 weeks, and at 8 weeks postpartum, using an adapted survey instrument. JMP14 software was used for statistical analysis. Findings showed that exclusive breastfeeding dropped sharply from 37.5% at 2 weeks to 19% at 8 weeks postpartum, a statistically significant decline ($p < 0.0001$). Key

risk factors associated with early cessation of EBF included maternal age, health status, knowledge, attitude, and modifiable institutional factors such as difficulties with latching and early introduction of formula. The authors concluded that exclusive breastfeeding rates among Saudi mothers remain low, and that healthcare providers must play a stronger role in promoting and supporting breastfeeding practices across all levels of care.

In a study conducted by Elkhalik et al. (2022) on "Factors Associated with Cessation of Exclusive Breastfeeding Among Lactating Mothers in Sharkia, Egypt," the authors sought to identify reasons behind the discontinuation of exclusive breastfeeding (EBF). The researchers employed a descriptive cross-sectional design and collected data using a structured interview questionnaire. The study involved a convenient sample of 206 women who had stopped exclusive breastfeeding and were attending a health unit in Diarb Negm city, Sharkia, Egypt. The findings revealed that maternal breast-related issues were the predominant maternal factors, accounting for over three-quarters of the causes for EBF cessation. Additionally, more than two-thirds of infantile factors associated with cessation were related to breastfeeding complications, the most significant of which was unsatisfactory infant weight gain. The study concluded that both maternal and infantile challenges contribute significantly to the early termination of EBF, with breast conditions and infant growth concerns being the leading causes. The researchers recommended antenatal educational programs to raise awareness about the importance and management of exclusive breastfeeding.

Similarly, Aldalili and El Mahalli (2021) conducted a study on "Prevalence, Associated Factors, and Challenges of Exclusive Breastfeeding in Alehsa Region, Saudi Arabia," which aimed to

assess the prevalence of EBF and its association with sociodemographic and obstetric factors among lactating mothers, as well as to identify challenges related to breastfeeding. This cross-sectional study was carried out in four primary health care centres (PHCCs) in the Alehsa region of Saudi Arabia. A total of 372 lactating mothers with infants aged 0–6 months were recruited, with 93 participants randomly selected from each centre. The results showed an EBF rate of approximately 60%. Significant factors associated with cessation of EBF included younger maternal age, fatigue or inconvenience from breastfeeding, sore nipples, perceived insufficient milk supply, ineffective breastfeeding techniques, and various maternal and infant-related challenges. Binary logistic regression analysis confirmed these associations to be statistically significant. The study concluded that breastfeeding problems, particularly technique-related issues, were key barriers to maintaining EBF. As a recommendation, the authors emphasized the need for healthcare professionals—such as nurses, midwives, and doctors—to provide practical training on breastfeeding and to promote confidence and understanding among mothers. Additionally, they highlighted the role of policymakers in enforcing the Baby-Friendly Hospital Initiative (BFHI) to align with WHO's global target of exclusive breastfeeding for the first six months of life

2.5 Summary of the Literature Review

The literature review provides a comprehensive exploration of the key components related to exclusive breastfeeding (EBF). The review is structured around four major concepts: knowledge, attitude, practice, and influencing factors related to EBF, as well as the application of the Health Belief Model (HBM) as the guiding theoretical framework. In the **conceptual**

review, the literature shows that knowledge of exclusive breastfeeding among mothers is generally high, especially regarding its definition, recommended duration, and health benefits for both mother and child. However, knowledge gaps persist, particularly around the practical application and misconceptions related to the inclusion of water or traditional supplements. Information sources such as health workers, mass media, and peer support play significant roles in shaping mothers' understanding.

The attitude of mothers toward EBF is shaped by a variety of factors, including personal beliefs, cultural norms, and religious teachings. While many mothers express positive attitudes toward EBF, these attitudes can be undermined by traditional beliefs, societal expectations, and inadequate family or community support. The influence of family members—particularly grandmothers and spouses—and the broader community remains critical in reinforcing or deterring exclusive breastfeeding behaviors. With regard to **practice**, reported rates of exclusive breastfeeding vary, with some mothers practicing EBF as recommended, while others introduce supplementary feeding early due to perceived insufficient milk, return to work, or lack of support. Workplace challenges, societal expectations, and inadequate maternity leave policies are among the common barriers to sustained practice, while encouragement from healthcare professionals and proper breastfeeding education act as facilitators.

The literature also identifies multiple **factors influencing EBF**, including socio-demographic characteristics such as age, education level, and employment status. Younger, less-educated mothers or those without stable income are often less likely to practice EBF. Institutional

factors, like healthcare provider support and maternity leave availability, as well as socio-cultural influences, significantly impact mothers' ability to exclusively breastfeed.

The **Health Belief Model (HBM)** is employed as the theoretical framework for the study. It explains how mothers' perceptions—such as susceptibility to child illness, perceived severity of not breastfeeding, perceived benefits and barriers, cues to action, and self-efficacy—influence their decisions regarding EBF. The model supports the analysis of how beliefs interact with knowledge, attitudes, and external influences to shape behavior.

Overall, the literature review and theoretical framework together provide a solid foundation for understanding the dynamics of exclusive breastfeeding. They guide the investigation into the knowledge, attitudes, and practices of nursing mothers at UBTH and help identify the multifaceted factors that influence their breastfeeding behaviors.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

This study utilized a descriptive cross-sectional research design, which is suitable for examining the current state of knowledge, attitudes, and practices of nursing mothers toward exclusive breastfeeding at a specific point in time. This design enabled the researcher to gather relevant data from a large population within a limited time frame without manipulating any variables. It was particularly useful for identifying trends and relationships among variables, which can inform future interventions or policy changes in maternal-child health.

3.2 Research Setting

The research was conducted among nursing mothers at the Infant Welfare Clinic on their Knowledge, Attitude and Practice towards exclusive breastfeeding among nursing mothers attending infant welfare clinic of the University of Benin Teaching Hospital, UBTH, located in Ovia North East Local Government Area, Ugbowo/Benin City, Edo State.

This health care institution is a government-approved healthcare facility that was founded in the year 1973 and it provides routine postnatal services, immunizations, growth monitoring, and health education to mothers and their infants. It also comprises of various departments some of which are Nursing Service department, medicine, pharmacy, physiotherapy, ophthalmology, medical laboratory science, radiography, dentistry, nutrition and dietetics departments. It also has schools of learning among which are: School of Nursing, School of

Midwifery, School of post basic Nursing e.t.c

It serves as a vital point of contact between healthcare providers and the community, making it an ideal location to access nursing mothers for the purpose of this study.

3.3 Target Population

The target population for this study included all nursing mothers who are currently attending the Infant Welfare Clinic during the period of data collection. These mothers typically have infants aged between 0 and 6 months, the recommended window for exclusive breastfeeding according to the World Health Organization (WHO). The inclusion of this specific group allows the study to directly evaluate practices and experiences during the exclusive breastfeeding phase.

3.4 Sample Size

The sample size was the number of subjects or participants required and to which the study findings was generalized. This was determined using the Taro Yamane formula for a known population size:

$n = N / (1 + N(e^2))$

Where:

- n = sample size
- N = estimated population of nursing mothers attending the clinic
- e = acceptable margin of error (0.05 for 95% confidence level)

This formula ensured that the sample is representative of the total population while maintaining a reasonable margin of error. The estimated number of nursing mothers is 200, the calculated sample size was:

$$n = \frac{200}{(1 + 200(0.0025)}$$

$$n = \frac{200}{(1 + 200(0.0025)}$$

$$n = \frac{200}{(1 + 0.5)}$$

$$n = \frac{200}{1.5}$$

Therefore n = 133

Therefore minimum sample size =133

3.5 Sampling Technique

A convenience sampling technique was employed to select participants for the study in the University of Benin Teaching Hospital, (UBTH), Benin City, Edo State. It is a non-probability method in which the researcher recruits nursing mothers who are readily available and willing to participate during their visits to the Infant Welfare Clinic. Convenience sampling is suitable for this research due to time constraints, accessibility, and the fact that the target population regularly visits the clinic. Though this method may limit generalizability, it allows for efficient data collection within the available resources and provides relevant insights into the knowledge, attitude, and practice of exclusive breastfeeding among nursing mothers in the setting.

3.6 Instrument for Data Collection

The primary instrument for data collection was a structured questionnaire, which was divided into five sections:

- Section A: Socio-demographic characteristics (age, marital status, educational level, occupation, parity, etc.)
- Section B: Knowledge about exclusive breastfeeding (definition, duration, benefits, etc.)
- Section C: Attitude towards exclusive breastfeeding (beliefs, cultural practices, family influence, etc.)
- Section D: Practice of exclusive breastfeeding (feeding frequency, duration, challenges, etc.)
- Section E: Challenges faced in exclusive breastfeeding

The questionnaire was both close-ended (for easy quantification) and Likert-scale based (to assess attitudes and perceptions more precisely). It was written in simple, clear language.

3.7 Validity of Instrument

Validity refers to the degree to which a research instrument measures what it intends to measure (Polit & Beck, 2008). The questionnaire adopted was properly organized, structured and simplified by the researcher under the guidance of the supervisor and public health officers before it was distributed.

3.8 Reliability of Instrument

To test reliability, a pilot study was conducted using 10% of the sample size in a similar setting. The data from the pilot study was analyzed using Cronbach's Alpha to measure internal consistency. A reliability coefficient of 0.70 or above will be considered acceptable. This step ensures that the instrument produces consistent and dependable results across different contexts and participants.

3.9 Method of Data Collection

Data collection occurred during clinic days over a period of clinic days that holds Tuesdays and Thursdays weekly. After obtaining ethical clearance and informed consent, eligible nursing mothers were given the questionnaire to fill out while they wait for routine services. One hundred and forty-six well-structured questionnaires containing questions relating to the research study was self-administered to sample survey at University of Benin Teaching Hospital (UBTH), Benin city, Edo state. While responses (data) being filled out in the questionnaire were formally and immediately gathered as they will be guarded on how to answer the questions. The researcher was also available to assist illiterate respondents. Those who indicated interest were approached and given the questionnaire with basic explanation of what was required of them. All respondents were assured of confidentiality and anonymity. The researcher was present during the process of the respondents answering the questionnaires, and all responses were collected on-site as soon as participants indicated they had completed it to ensure a high response rate and reduce the risk of data loss.

3.10 Method of Data Analysis

Collected data was coded and entered into the Statistical Package for the Social Sciences (SPSS) version. Descriptive statistics (such as frequency tables, means, and percentages) were used to summarize demographic data and responses. Inferential statistics, such as the Chi-square test, were employed to determine relationships between variables such as knowledge level and practice. Statistical significance will be set at $p < 0.05$.

3.11 Ethical Consideration

The researcher was aware of the ethical and moral principles when it comes to the collection of information from respondents. Privacy which is one of the most important aspects of human rights was observed. Permission was sorted from the University of Benin ethical clearance committee before collection of data. The major ethical principles that was upheld during this study are:

1. Autonomy: The individuals were not be forced into participating in the research project. The respondents were allowed to make decisions for themselves without duress.

2. Maintenance of confidentiality: Throughout this study, the researcher did not disclose personal details of the participants like name, phone number and address. Confidentiality was ensured by not divulging the information to others and giving access or control to just the supervisor and the statistician.

3. Informed consent: The researcher ensured that the participants had full knowledge of the study, purpose and procedures to be followed, the possible risks and benefits. The researcher

also ensured that the participants gave their full consent before they took part in the study.

4. Avoidance of plagiarism: Studies used were properly referenced.

5. Freedom from exploitation: In this study, the participants were assured that the information they released would not be used against them. Also, financial exploitation was avoided as there was no fee attached for participation.

6. Right to fair treatment: All participants were treated fairly without discrimination.

CHAPTER FOUR

RESULTS

This chapter deals with the representation of data collected regarding the knowledge, attitude and practice towards exclusive breastfeeding among nursing mothers attending infant welfare clinic in University of Benin Teaching Hospital. A total of 133 questionnaires were distributed to nursing mothers during the period of this study. 127 were properly filled and valid for data analysis, giving a response rate of 95.5%.

Table 4.1: Socio-demographic data of respondent

Variable	Frequency (n=215)	Percent (%)
Age		
Below 20	11	8.7
20–24	13	10.2
25–29	39	30.7
30–34	42	33.1
35 and above	22	17.3
Marital Status		
Single	28	22
Married	66	52
Divorced/Separated	21	16.5
Widowed	12	9.5
Educational Level		
No formal education	28	22
Primary education	14	11
Secondary education	51	40.2
Tertiary education	34	26.8
Occupation		
Unemployed	21	16.5
Trader	26	20.5
Civil Servant	35	27.6
Artisan	22	17.3
Others	23	18.1
Number of Children		
1	23	18.1
2–3	33	26
4–5	36	28.3
More than 5	35	27.6

Table 4.1. Cont'd

Religion		
Christianity	57	44.9
Islam	29	22.8
Traditional	33	26
Others	8	6.3
Variable	**Frequency (n=215)**	**Percent (%)**
Tribe		
Bini	51	40.1
Esan	23	18.1
Yoruba	16	12.6
Igbo	19	15
Hausa	11	8.7
Others	7	5.5

Table 4.1 shows the socio-demographic characteristics of the respondents**.** A total of 127 nursing mothers participated in the study. The majority of respondents were between the ages of 30–34 years (33.1%), followed by those aged 25–29 years (30.7%). Only 8.7% were below 20 years of age. Over half of the respondents (52%) were married, while 22% were single, 16.5% divorced/separated, and 9.5% widowed. Regarding educational level, 40.2% had secondary education, followed by 26.8% with tertiary education. A notable proportion (22%) had no formal education. Occupationally, 27.6% were civil servants, 20.5% traders, and 18.1% belonged to other forms of employment. In terms of number of children, 28.3% of respondents had 4–5 children, while 27.6% had more than 5 children. Christianity was the predominant religion (44.9%), followed by Islam (22.8%) and Traditional religion (26%). Ethnically, the majority were Bini (40.1%), followed by Esan (18.1%), Igbo (15%), Yoruba (12.6%), Hausa (8.7%), and other tribes (5.5%).

4.1 Answering Research Questions

Research Question 1: What is the the knowledge of exclusive breastfeeding among nursing mothers attending infant welfare clinic in UBTH**?**

Table 4.2: knowledge of exclusive breastfeeding among nursing mothers

Items	Frequency	Correct	Wrong	Mean	Remark
Heard of Exclusive Breast feeding?		106 (83.5)	21 (16.5)	1.8	**Good**
Yes	106 (83.5)				
No	21 (16.5)				
What does exclusive breastfeeding mean?		78 (61.4)	49(38.6)	1.6	**Good**
Breast milk only for 6 months	78 (61.4)				
Breast milk and water	31 (24.4)				
Breast milk and other foods	14 (11.0)				
Not sure	4 (3.2)				
What is the recommended duration for exclusive breastfeeding?		88 (69.3)	39 (30.7)	1.7	**Good**
1 month	8 (6.3)				
3 months	14 (11.0)				
6 months	88 (69.3)				
12 months	17 (13.4)				
Can breast milk alone meet a baby's nutritional needs for the first 6 months?		97 (76.4)	30(23.6)	1.8	**Good**
Yes	97 (76.4)				
No	19 (15.0)				
Not sure	11 (8.7)				
Are you aware that breast milk contains antibodies that protect babies from infections?		77 (60.6)	50(39.4)	1.6	**Good**
Yes	77 (60.6)				
No	50 (39.4)				
Exclusive breastfeeding reduces the risk of diarrhea and malnutrition in babies		106 (83.5)	21(16.5)	1.8	**Good**
Strongly agree	106 (83.5)				
Agree	21 (16.5)				
Disagree	78 (61.4)				
Strongly disagree	31 (24.4)				
		Grand Mean		**1.7**	**Good**

Mean Cut-off = 1.5

Table 4.2 shows the knowledge of exclusive breastfeeding among nursing mothers, revealing a generally good level of awareness across all assessed variables. The highest mean score of 1.8 was recorded in three areas: whether the respondents had heard of exclusive breastfeeding, if they agreed that breast milk alone could meet a baby's nutritional needs for the first six months, and whether they believed exclusive breastfeeding reduces the risk of diarrhea and malnutrition in babies. This was followed by a mean score of 1.7 on the recommended duration for exclusive breastfeeding. Mean scores of 1.6 were observed in the understanding of the meaning of exclusive breastfeeding and in awareness that breast milk contains antibodies that protect babies from infections. With a grand mean of 1.7, the findings indicate that nursing mothers possess a good overall knowledge of exclusive breastfeeding.

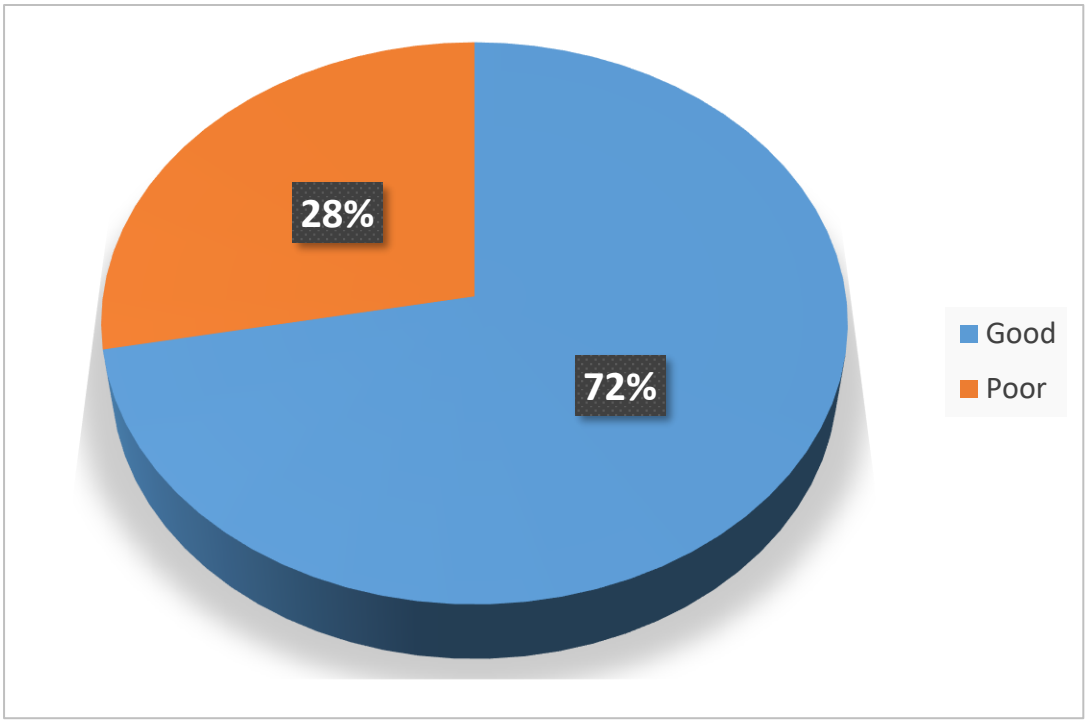

Figure 4.1: Pie-chart showing knowledge of exclusive breastfeeding among nursing mothers

Fig. 1 presents a pie chart showing the knowledge of exclusive breastfeeding among nursing mothers. The chart reveals that the majority, 72% (n=92), demonstrated good knowledge, while 28% (n=35) exhibited poor knowledge.

Research question 2: What are the attitudes of nursing mothers towards exclusive breastfeeding at the infant welfare clinic UBTH?

Table 4.3: Attitude of nursing mothers Towards Exclusive Breastfeeding

Items	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean	Remark
I believe exclusive breastfeeding is important for my baby's health.	80(63.0)	35(27.6)	8(6.3)	4(3.1)	3.5	**Positive**
I feel confident and comfortable breastfeeding my baby exclusively.	68(53.5)	40(31.5)	14(11.0)	5(3.9)	3.35	**Positive**
I believe giving water or herbal mixtures to a newborn is not necessary.	58(45.7)	29(22.8)	22(17.3)	18(14.2)	3	**Positive**
Breastfeeding does not affect the shape of my breasts.	42(33.1)	38(29.9)	27(21.3)	20(15.7)	2.8	**Positive**
Breastfeeding exclusively is not stressful and tiring.	50(39.4)	33(26.0)	28(22.0)	16(12.6)	2.92	**Positive**
			Grand Mean		**3.2**	**Positive**

Mean Cut-Off= 2.5

Table 4.3 shows that the item *"I believe exclusive breastfeeding is important for my baby's health"* recorded the highest mean of **3.5**, followed by *"I feel confident and comfortable breastfeeding my baby exclusively"* with a mean of **3.35**. The statement *"I believe giving water or herbal mixtures to a newborn is not necessary"* had a mean score of **3.0**, while *"Breastfeeding exclusively is not stressful and tiring"* had a mean of **2.92**. The lowest mean value of **2.8** was observed for the item *"Breastfeeding does not affect the shape of my breasts."* The grand mean was **3.2**, indicating an overall **positive attitude** of nursing mothers towards exclusive breastfeed

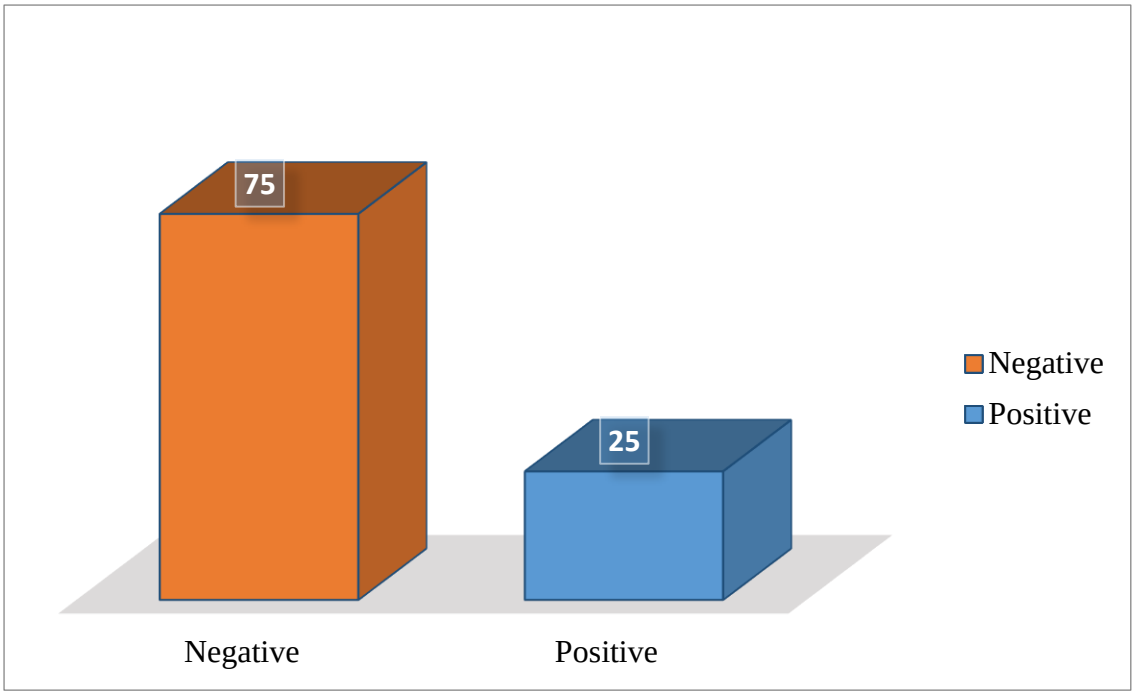

Figure 4.2: Bar chart showing the attitude of nursing mothers towards exclusive breastfeeding

Figure 4.2 presents the attitude of nursing mothers towards exclusive breastfeeding. A majority of the respondents, **95 (75%),** exhibited a **positive attitude**, while **32 (25%)** demonstrated a **negative attitude**, indicating overall favorable perceptions towards exclusive breastfeeding among the participants.

Research question 3: What are the practices of exclusive breastfeeding among among nursing mothers attending infant welfare clinic in UBTH?

Table 4.4: Practice of exclusive breastfeeding among nursing mothers

Variables	Frequency	Percentage (%)
Have you practiced exclusive breastfeeding with your child(ren)?		
Yes	82	64.6
No	45	35.4
If yes, for how long? (n=82)		
Less than 1 month	7	8.54
1–3 months	18	22
4–5 months	22	26.8
6 months	35	42.7
If no, why not? (Tick all that apply) (n=45)		
Belief baby wasn't getting enough milk	17	37.8
Cultural/family influence	11	24.4
Returned to work from partner/family	7	15.6
No support	6	13.3
Others	4	8.89
What influenced your decision to practice or not practice exclusive breastfeeding? (n=127)		
Advice from health professionals	59	46.5
Family and friends	19	15
Personal belief	21	16.5
Work/school demands	18	14.2
Others	10	7.87
Have you been taught proper breastfeeding techniques by a health worker		
Yes	93	73
No	34	27

Table 4.4 presents the practice of exclusive breastfeeding among nursing mothers. Out of 127 respondents, **82 (64.6%)** reported that they had practiced exclusive breastfeeding, while **45 (35.4%)** had not. Among those who practiced EBF, **35 (42.7%)** maintained it for the recommended six months, while **22 (26.8%)** did so for 4–5 months, **18 (22%)** for 1–3 months, and **7 (8.54%)** for less than one month. For those who did not practice EBF, the most cited reason was the belief that the baby wasn't getting enough milk **(17, 37.8%),** followed by cultural or family influence **(11, 24.4%),** return to work **(7, 15.6%),** lack of support **(6, 13.3%),** and other reasons **(4, 8.89%).** Regarding influences on the decision to practice or not practice EBF, **59 (46.5%)** were influenced by advice from health professionals, **21 (16.5%)** by personal belief, **19 (15%)** by family and friends, **18 (14.2%)** by work or school demands, and **10 (7.87%)** by other factors. Furthermore, **93 (73%)** of the respondents had been taught proper breastfeeding techniques by a health worker, while **34 (27%)** had not, suggesting that health education plays a crucial role in breastfeeding practice.

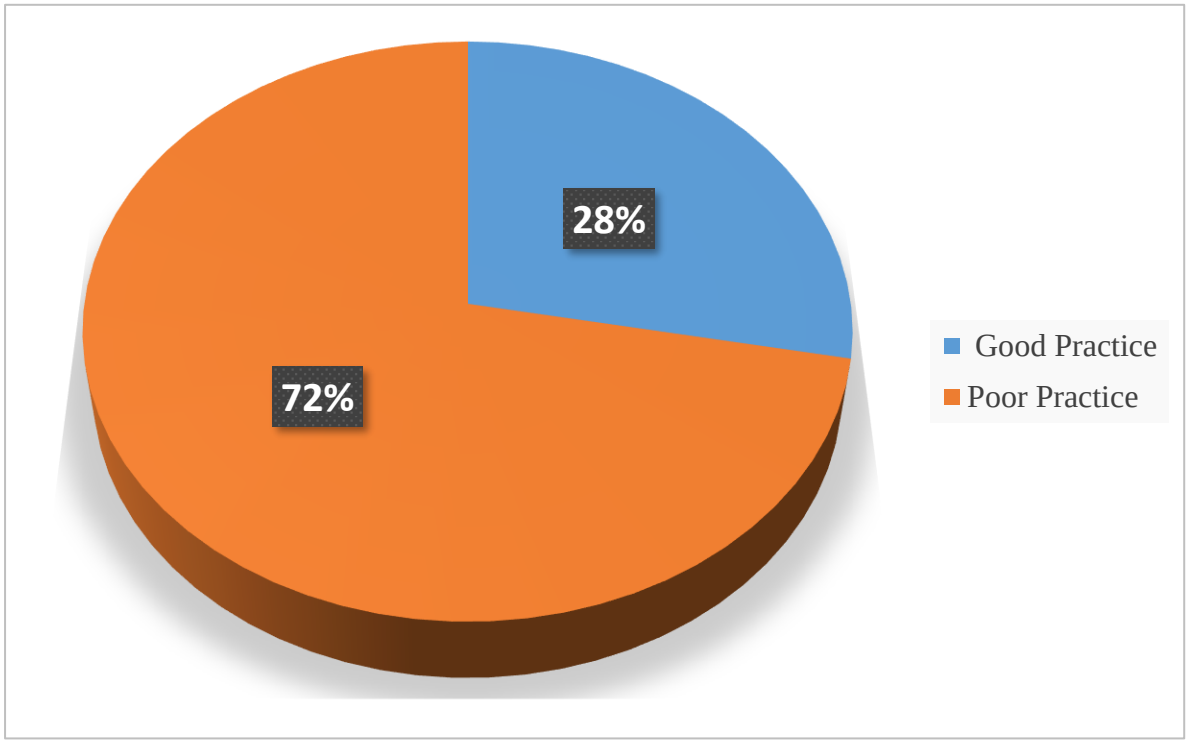

Figure 4.3: Pie-chart showing the practice of exclusive breastfeeding among nursing mothers

Figure 4.3 shows the practice of exclusive breastfeeding among nursing mothers. The majority of the respondents, **92 (72%),** demonstrated *poor practice*, while only **35 (28%)** had *good practice.* This highlights a significant gap in optimal breastfeeding behavior among the participants.

Research question 4: What are the factors influencing the practice of exclusive breastfeeding among nursing mothers in infant welfare clinic in UBTH?

Table 4.5: Factors Influencing the Practice Of Exclusive Breastfeeding Among Nursing Mothers

Items	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean	Remark
I have received enough information from healthcare providers about exclusive breastfeeding.	49(38.6)	38(29.9)	27(21.3)	13(10.2)	3	Factor
My level of education has positively influenced my decision to exclusively breastfeed.	79(62.2)	27(21.3)	13(10.2)	8(6.3)	3.4	Factor
Cultural beliefs and practices discourage me from practicing exclusive breastfeeding	65(51.2)	33(26.0)	17(13.4)	11(8.7)	3.2	Factor
My work or school schedule makes it difficult to exclusively breastfeed.	59(46.5)	34(26.8)	22(17.3)	12(9.4)	3.1	Factor
The support I receive from my partner and family encourages me to practice exclusive breastfeeding.	74(58.3)	34(26.8)	10(7.9)	9(7.1)	3.4	Factor
I stopped exclusive breastfeeding early because I felt my breast milk was not enough for my baby.	66(52.0)	31(24.4)	12(9.4)	18(14.2)	3.1	Factor
The availability of infant formula affects my decision to continue exclusive breastfeeding.	71(55.9)	21(16.5)	16(12.6)	19(15.0)	3.1	Factor
Health problems (either mine or my baby's) made exclusive breastfeeding difficult for me.	81(63.8)	27(21.3)	12(9.4)	7(5.5)	3.4	Factor
Lack of breastfeeding-friendly spaces in public and at work discourages me from practicing exclusive breastfeeding.	91(71.7)	26(20.5)	8(6.3)	2(1.6)	3.6	Factor
				Grand Mean	**3.2**	**Factor**

Mean Cut-off = 2.5

Table 4.5 reveals a range of socio-cultural, personal, and systemic factors that significantly influence the practice of exclusive breastfeeding among nursing mothers attending the infant welfare clinic at the University of Benin Teaching Hospital (UBTH). The interpretation is based on the calculated mean scores for each item, with a cut-off point of 2.5 for determining whether a factor is influential. The overall grand mean score of 3.2 suggests that, on average, mothers perceive these listed factors as influential in their decision and ability to practice exclusive breastfeeding. One prominent factor identified is the availability of adequate information from healthcare providers, with a mean score of 3.0, indicating that a reasonable proportion of mothers acknowledged receiving sufficient information, thereby positively influencing their breastfeeding practices. Educational background was also seen to play a significant role, as reflected by a mean score of 3.4, showing that many mothers believe their level of education has had a beneficial impact on their decision to exclusively breastfeed. Cultural beliefs and practices, which scored a mean of 3.2, emerged as another key influence, suggesting that in some cases, cultural norms act as barriers to exclusive breastfeeding, discouraging mothers from adhering to recommended practices. Work or school-related constraints also proved influential, with a mean of 3.1, pointing to the challenge of balancing breastfeeding with professional or academic responsibilities. Similarly, lack of breastfeeding-friendly environments in public and workplaces received the highest mean score of 3.6, highlighting the structural and environmental barriers that many mothers face. The support received from partners and family scored 3.4, emphasizing the importance of social and emotional backing in encouraging mothers to sustain exclusive breastfeeding. Personal beliefs about breast milk adequacy (mean = 3.1) and the availability of infant formula (mean = 3.1) also affected decisions, suggesting psychological and material influences that may prompt early cessation. Lastly, health issues—either maternal or infant-related—were noted as a substantial deterrent with a mean of **3.4**, reinforcing the role of physical health in sustaining breastfeeding.

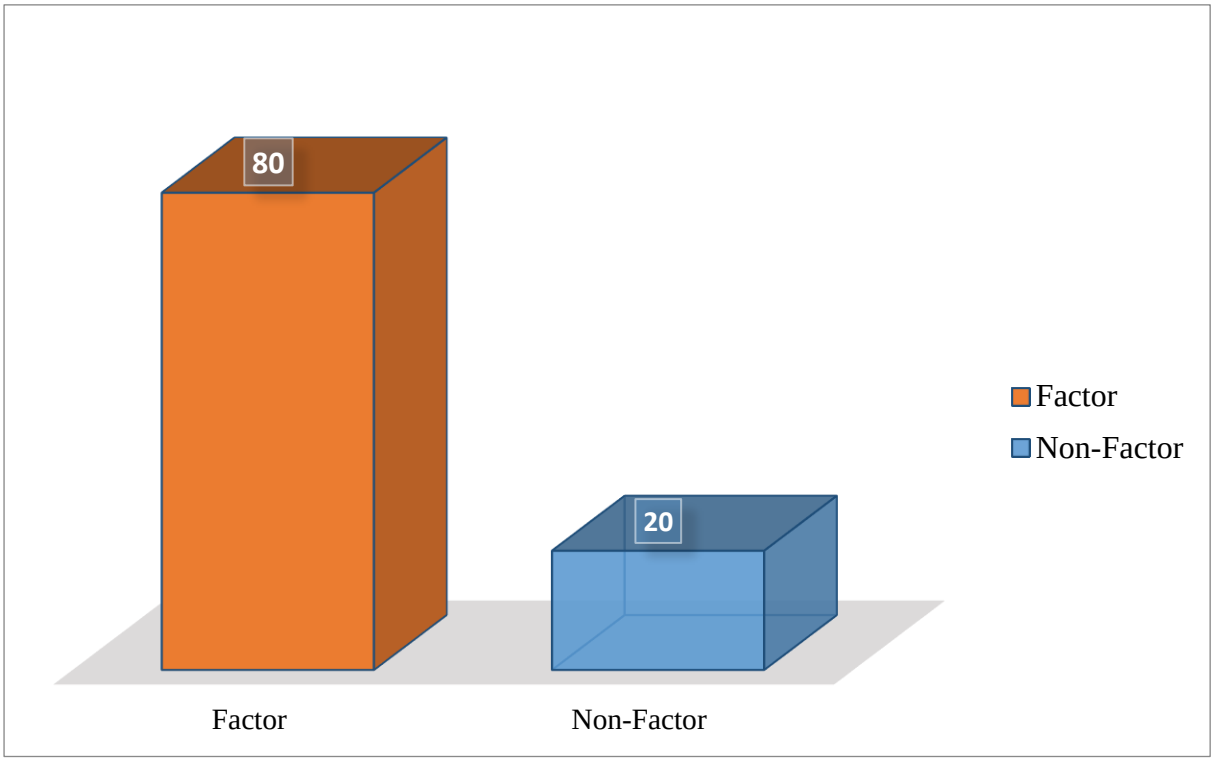

Figure 4.4: Figure showing Factors Influencing The Practice Of Exclusive Breastfeeding Among Nursing Mothers

Figure 4.4 presents the factors influencing the practice of exclusive breastfeeding among nursing mothers. A significant proportion, **101 (80%)**, acknowledged the presence of influencing factors, while **26 (20%)** indicated no influencing factors. This suggests that the majority of mothers are affected by certain determinants in their breastfeeding practices.

4.2 Testing of hypothesis

2. There is no significant relationship between the knowledge of nursing mothers attending infant welfare clinic in UBTH and their practice of exclusive breastfeeding

Table 4.6: Relationship between the knowledge of nursing mothers attending infant welfare clinic in UBTH and their practice of exclusive breastfeeding

Knowledge	Practice		Test Statistics (χ^2)	df	P value	Decision
	Good	**Poor**				
Good	87(68.5)	111 (87.4)	2..023	1	0.10	**Accepted**
Poor	40(31.5)	16(12.6)				

Table 4.6 shows, respondents with good knowledge generally demonstrated better practice, while those with poor knowledge exhibited both good and poor practices. However, the association between knowledge and practice was not statistically significant ($\chi^2 = 2.023$, df = 1, p = 0.10), and the null hypothesis was accepted.

CHAPTER FIVE

DISCUSSION OF FINDINGS

This chapter discusses the major findings of the research compared with the literature reviewed, the implication for nursing, summary, conclusion, Recommendations and Suggestions for further Studies.

5.1. Discussion of Major Findings

This study explored knowledge, attitude, and practice of exclusive breastfeeding (EBF) among nursing mothers at the infant welfare clinic, UBTH, highlighting how socio-demographic factors influence EBF behavior. Most respondents (63.8%) were aged 25–34, aligning with studies from Ethiopia and Nigeria that link older maternal age with higher EBF rates. Over half (52%) were married, though a significant 22% were single, a group that may face more barriers to EBF due to limited support systems. Educationally, a majority had secondary (40.2%) or tertiary (26.8%) education, correlating with greater EBF knowledge, though the 22% with no formal education may require focused outreach. Occupational data showed a mix, with many employed mothers (27.6% civil servants), which raises workplace-related concerns for sustaining EBF. This contrasts with studies showing housewives are more likely to exclusively breastfeed. Parity data revealed that 55.9% had four or more children, echoing some studies suggesting higher parity supports EBF, though findings are mixed.

Cultural and religious diversity (e.g., 40.1% Bini) points to the potential influence of traditional beliefs on breastfeeding choices. Overall, while many mothers in the study had favorable characteristics for EBF (education, age), challenges like employment, single motherhood, and

cultural beliefs necessitate tailored interventions to support sustained exclusive breastfeeding.

The knowledge of exclusive breastfeeding among nursing mothers

This study found that the majority (72%) of nursing mothers attending the infant welfare clinic at UBTH demonstrated good knowledge of exclusive breastfeeding (EBF), while 28% exhibited poor knowledge. This favorable knowledge level is evidenced by the grand mean score of 1.7, which is above the cut-off point of 1.5. A closer examination of specific knowledge areas reveals that 83.5% of respondents had heard of exclusive breastfeeding, and 61.4% correctly defined it as giving breast milk only for 6 months. Regarding the recommended duration, 69.3% correctly identified that EBF should last for 6 months. Most mothers (76.4%) were aware that breast milk alone can meet a baby's nutritional needs for the first 6 months, and 60.6% recognized that breast milk contains antibodies that protect babies from infections. Furthermore, 83.5% strongly agreed that exclusive breastfeeding reduces the risk of diarrhea and malnutrition in babies. These findings align with several studies from the literature review. The current knowledge level (72%) is comparable to the 74.2% pooled prevalence of good knowledge reported by Gebeyehu et al. (2023) in their systematic review of Ethiopian women's knowledge of EBF. Similarly, Okoroiwu et al. (2021) found that 70% of respondents in Nigerian communities had good knowledge of exclusive breastfeeding, which closely mirrors our findings. The results also correspond with Elgzar et al. (2023), who reported that 68.2% of Saudi nursing mothers had adequate knowledge about exclusive breastfeeding. The proportion of mothers in this study who correctly identified the recommended duration of EBF (69.3%) is slightly lower than the findings of Muluneh (2023),

who reported that 58% of Ethiopian mothers practiced EBF among infants under six months. However, the knowledge level in the current study is somewhat higher than that found by Kristina et al. (2023) in Indonesia, where 56.7% of respondents had good knowledge of exclusive breastfeeding. This variation might be attributed to differences in research settings, educational backgrounds of participants, or accessibility to health information. While the overall knowledge level is encouraging, the fact that 38.6% of mothers could not correctly define EBF, and 30.7% were unaware of the recommended duration indicates significant knowledge gaps that need addressing. Additionally, nearly 40% of mothers were unaware that breast milk contains protective antibodies, suggesting a need for more comprehensive education on the immunological benefits of breastfeeding. These findings underscore the importance of targeted educational interventions, particularly for the 28% of mothers with poor knowledge. As suggested by Kartika et al. (2021), health education on exclusive breastfeeding should begin during the prenatal period and continue postnatally to bridge knowledge gaps. The relatively high proportion of mothers who correctly understood that breast milk alone is sufficient for the first six months (76.4%) contrasts with common cultural beliefs identified by Sosseh et al. (2023), where mothers doubted breast milk's adequacy and believed in giving water or other supplements early. Overall, while knowledge levels are generally good, there remains room for improvement, particularly regarding the specific benefits and proper implementation of exclusive breastfeeding. These findings suggest that education efforts should focus not just on awareness of EBF but on comprehensive understanding of its definition, recommended duration, and health benefits.

The attitude of nursing mothers towards exclusive breastfeeding

The findings reveal that majority (75%) of nursing mothers attending the infant welfare clinic at UBTH demonstrated positive attitudes toward exclusive breastfeeding (EBF), with an overall grand mean of 3.2 (above the 2.5 cut-off). This high prevalence of positive attitudes aligns with several studies cited in the literature review. The strongest positive attitude was observed regarding the recognition of EBF's importance for infant health (90.6% agreeing or strongly agreeing, mean=3.5), followed by confidence in breastfeeding exclusively (85% agreeing or strongly agreeing, mean=3.35). These findings correspond closely with Gebeyehu et al.'s (2023) systematic review, which reported a 77.2% positive attitude toward EBF among Ethiopian women. Similarly, Elgzar et al. (2023) found that 63.5% of Saudi nursing mothers held positive beliefs about exclusive breastfeeding. The study reveals that 68.5% of participants believed that giving water or herbal mixtures to newborns is unnecessary (mean=3.0). This represents a moderately positive attitude but also highlights that nearly a third of mothers still believe in supplementation, which directly contradicts EBF principles. This finding contrasts somewhat with Sosseh et al.'s (2023) ethnographic study in The Gambia, which identified a strong cultural belief in the necessity of giving water or charm water to infants as a major barrier to EBF. The study suggests that while this belief exists among some participants, it is not as predominant as reported in The Gambian context. Regarding body image concerns, 63% of participants agreed that breastfeeding does not affect breast shape (mean=2.8), while 65.4% disagreed that EBF is stressful and tiring (mean=2.92). These findings differ somewhat from Sarhan's (2023) study in Palestine, which reported that 76.1% of participants expressed negative attitudes toward EBF, with psychological challenges like stress and anxiety being

major factors. The study suggests more favorable perceptions regarding the physical and psychological demands of breastfeeding. Interestingly, while the current study shows predominantly positive attitudes (75%), there remains a gap between attitude and practice as commonly reported in the literature. Okoroiwu et al. (2021) noted that despite 70% of respondents having good knowledge and positive attitudes toward EBF, actual practice remained suboptimal at 54.4%. This pattern of high positive attitudes not fully translating to practice rates is consistent across multiple studies in the literature review. The 25% of mothers with negative attitudes in the study likely represent those influenced by factors similar to those identified by Sosseh et al. (2023) and Sarhan (2023), including cultural beliefs, psychological factors, physical discomforts, and concerns about milk adequacy. These subgroups require targeted interventions to address specific attitudinal barriers. Overall, the findings from this study demonstrate more positive attitudes toward EBF than several of the referenced studies, particularly compared to Sarhan's (2023) Palestinian study. However, they align closely with Gebeyehu et al.'s (2023) and Elgzar et al.'s (2023) findings regarding the generally positive perception of EBF. The persistence of some negative attitudes, particularly regarding water supplementation and concerns about physical impacts, suggests areas for focused educational interventions similar to those recommended across multiple studies in the literature review.

The practices of exclusive breastfeeding among among nursing mothers

The findings regarding the practice of exclusive breastfeeding (EBF) among nursing mothers in this study reveal several important insights that both align with and differ from previous

research. According to Table 4.4, 64.6% of respondents reported having practiced exclusive breastfeeding with their children, which is comparable to findings from Jebena and Tenagashaw (2022) who reported a 70.4% EBF rate in Ethiopia, and higher than Muluneh's (2023) findings of 58% from the Ethiopian Demographic and Health Survey. However, when examining the duration of EBF, only 42.7% of those who practiced EBF did so for the recommended six months, suggesting that while initiation rates are relatively high, sustaining EBF remains challenging. This discrepancy becomes even more apparent when considering Figure 4.3, which indicates that only 28% of respondents demonstrated good EBF practice, while a significant 72% showed poor practice. This stark contrast between self-reported EBF engagement (64.6%) and observed good practice (28%) suggests potential misunderstandings about what constitutes proper exclusive breastfeeding or social desirability bias in self-reporting. The significant gap between knowledge/attitude and actual practice aligns with Gebeyehu et al.'s (2023) systematic review, which found Ethiopian women had good knowledge (74.2%) and positive attitudes (77.2%) toward EBF, yet practice rates remained lower at 58.3%. Similarly, Okoroiwu et al. (2021) noted that despite 70% of Nigerian respondents having good knowledge of EBF, only 54.4% practiced it exclusively for the full six months. Among mothers who did not practice EBF (35.4%), the primary reason cited was the belief that the baby wasn't getting enough milk (37.8%), followed by cultural/family influence (24.4%). This aligns with Sosseh et al.'s (2023) ethnographic study in The Gambia, which identified cultural beliefs about breast milk adequacy as a significant barrier. The current study's findings also echo Al Shahrani et al.'s (2021) identification of perceived insufficient milk supply as a key risk factor for early cessation of EBF in Saudi Arabia. Regarding

influences on EBF decision-making, advice from health professionals emerged as the most significant factor (46.5%), followed by personal beliefs (16.5%) and influence from family and friends (15%). This is consistent with Elgzar et al.'s (2023) finding that 39.2% of Saudi mothers identified healthcare providers as their primary source of influence on breastfeeding decisions. However, the current study shows a higher reliance on healthcare professionals than family members, which differs slightly from some previous research emphasizing the role of family support systems. The finding that 73% of respondents had been taught proper breastfeeding techniques by a health worker indicates relatively good healthcare engagement, yet this doesn't appear to translate proportionally into good practice (only 28%). This discrepancy is similar to findings from Elkhalik et al. (2022) and Aldalili and El Mahalli (2021), who identified ineffective breastfeeding techniques as significant barriers despite healthcare contact. Work demands were cited by 14.2% of respondents as influencing their EBF decisions, and 15.6% of non-practitioners mentioned returning to work as a reason for not practicing EBF. This is considerably lower than the workplace barriers emphasized in studies by Ibekwe et al. (2022) and Ickes et al. (2021), which identified work-related constraints as major determinants of EBF cessation. This difference may reflect variations in sample characteristics, with the current study possibly including fewer employed mothers or mothers with more flexible work arrangements. Overall, these findings suggest that while knowledge dissemination through healthcare channels appears relatively effective (73% received technique training), translating this knowledge into sustained EBF practice remains challenging (only 28% good practice). The gap between intention and practice may be attributed to the perception of insufficient milk, cultural influences, and lack of support systems—factors that have been consistently identified

in previous research across different geographical contexts. The study's relatively lower emphasis on work-related barriers compared to previous research warrants further investigation into the specific socioeconomic characteristics of the study population.

The factors influencing the practice of exclusive breastfeeding among nursing mothers

The findings reveal several significant factors influencing exclusive breastfeeding (EBF) practices among nursing mothers, with a grand mean of 3.2 (above the 2.5 cut-off), confirming that these elements substantially impact mothers' breastfeeding decisions. The study further emphasizes this impact, showing that 80% of respondents acknowledged the presence of influencing factors on their breastfeeding practices. When comparing these findings with the previous studies, several key parallels and contrasts emerge: The study shows that 68.5% of mothers agreed or strongly agreed that they received sufficient information from healthcare providers about EBF (mean score 3.0). This aligns with findings from Gebeyehu et al. (2023), who reported good knowledge levels (74.2%) among Ethiopian women, and Okoroiwu et al. (2021), who found 70% knowledge levels among Nigerian women. However, the findings contrast with Otim et al. (2022), who found significant knowledge gaps among healthcare providers themselves, with 43% of health workers unaware of national infant feeding policy guidelines in Uganda, potentially limiting the quality of information reaching mothers. A substantial 83.5% of mothers in the study agreed that their educational level positively influenced their decision to exclusively breastfeed (mean score 3.4). This strongly corroborates findings from Kristina et al. (2023), who linked better knowledge (56.7%) of EBF to higher educational attainment, and Muluneh (2023), who found that mothers with secondary education

or higher had twice the odds (AOR=2.00) of practicing EBF. The current findings reinforce education as a crucial determinant across diverse cultural contexts. Notably, 77.2% of mothers in this study reported that cultural beliefs and practices discouraged them from practicing EBF (mean score 3.2). This finding mirrors Sosseh et al.'s (2023) ethnographic study in The Gambia, which identified six major cultural themes influencing breastfeeding behaviors, including restrictive dietary beliefs and strong cultural convictions about giving water alongside breast milk. The results also align with Okoroiwu et al. (2021), who found that cultural beliefs (OR=2.0) negatively affected breastfeeding practices in Nigeria. This suggests that cultural factors remain persistent barriers to EBF across different African contexts. In the current study, 73.3% of mothers agreed that work or school schedules made exclusive breastfeeding difficult (mean score 3.1). This finding is consistent with research by Ibekwe et al. (2022), who identified workplace constraints as significant barriers among Nigerian working mothers, and Ickes et al. (2021), who found that returning to work prompted early cessation of breastfeeding among Kenyan mothers employed in agriculture and tourism. However, this study reveals a higher perceived impact of work challenges than the 52.6% EBF rate reported by Adebayo et al. (2021) in a semi-urban Nigerian community, suggesting potentially more severe work-related barriers in this study population. A high proportion (85.1%) of mothers in this study acknowledged that partner and family support encouraged EBF (mean score 3.4). This strongly aligns with Agrawal et al.'s (2022) review emphasizing the critical role of paternal attitudes and family support in shaping breastfeeding behaviors. It also corresponds with Elgzar et al. (2023), who found that social support was significant, with 39.2% of mothers identifying healthcare providers and 30.5% identifying husbands as primary sources of influence on

breastfeeding decisions. The current study found 76.4% of mothers stopped EBF early due to perceived insufficient breast milk (mean score 3.1). This mirrors findings from Aldalili and El Mahalli (2021), who identified perceived insufficient milk supply as a significant factor for EBF cessation in Saudi Arabia, and Sosseh et al. (2023), who found mothers doubting their breast milk's adequacy in The Gambia. This perception appears consistent across diverse populations as a major barrier to continued EBF. A significant 85.1% of mothers in this study reported that health problems (either maternal or infant) made EBF difficult (mean score 3.4). This finding corresponds with Elkhalik et al. (2022), who found that maternal breast-related issues accounted for over three-quarters of the causes for EBF cessation, and Al Shahrani et al. (2021), who identified maternal health status as a key risk factor for early cessation. However, this study shows a considerably higher impact of health problems than previously reported, suggesting this might be a more severe barrier in the population. The highest-scoring factor in thestudy (92.2% agreement, mean 3.6) was the lack of breastfeeding-friendly spaces in public and at work. This strongly reinforces findings from Ickes et al. (2021) regarding the lack of workplace lactation spaces as a severe limitation to EBF continuation, and aligns with Ibekwe et al. (2022) on the importance of structural and workplace support. The findings suggest this environmental factor may be even more influential than previously documented in the literature. The study results largely corroborate previous research while highlighting the particular significance of environmental support, health challenges, and cultural beliefs in this specific context. The findings underscore that interventions should address multiple determinants simultaneously, with particular attention to creating supportive environments for breastfeeding both in public spaces and workplaces.

5.2 Implication to Nurses

The findings from this study have significant implications for nursing practice, particularly in the area of maternal and child health. As frontline healthcare providers, nurses play a crucial role in promoting exclusive breastfeeding through education, advocacy, and support. Understanding the level of knowledge, attitudes, and practices of nursing mothers regarding exclusive breastfeeding will help nurses tailor their health education strategies to address specific gaps and misconceptions. This research will enable nurses to identify barriers that hinder exclusive breastfeeding and develop culturally appropriate interventions to overcome them. Furthermore, it highlights the need for continuous professional development and training of nurses, especially those working in infant welfare clinics, to ensure they are equipped with up-to-date knowledge and skills to support and counsel mothers effectively. The study also underscores the importance of incorporating breastfeeding education into routine antenatal and postnatal care. By strengthening the nurse–mother relationship and enhancing communication, nurses can foster a supportive environment that encourages and sustains exclusive breastfeeding practices. Ultimately, the implementation of the study's recommendations could contribute to improved infant nutrition, reduced infant morbidity and mortality, and overall better public health outcomes. This aligns with the global goals of promoting optimal infant feeding practices and advancing maternal and child health.

5.3 Summary

This study explored the knowledge, attitude, and practices of exclusive breastfeeding among nursing mothers attending the Infant Welfare Clinic at the University of Benin Teaching

Hospital. Exclusive breastfeeding, defined as feeding infants only breast milk for the first six months of life, is a vital public health strategy for improving child survival and development. Despite its proven benefits, the practice remains suboptimal in many settings, including Nigeria. The research aimed to assess mothers' understanding of exclusive breastfeeding, their perceptions toward it, and how consistently they apply the practice. A descriptive cross-sectional design was used, involving nursing mothers who met the inclusion criteria. Data were collected through structured questionnaires and analyzed to identify patterns, strengths, and gaps. Findings revealed varying levels of awareness and practice among the respondents. While many mothers demonstrated basic knowledge of exclusive breastfeeding, some held misconceptions or faced challenges in adhering strictly to the practice. Influencing factors included maternal education, cultural beliefs, support from healthcare providers, and workplace policies. The study concluded that although knowledge about exclusive breastfeeding is generally high, attitudes and practices do not always align with recommended guidelines. This calls for intensified nursing interventions such as education, counseling, and support systems to bridge the gap between knowledge and practice.

5.4 Conclusion

This study examined the knowledge, attitude, and practice of exclusive breastfeeding among nursing mothers attending the Infant Welfare Clinic at the University of Benin Teaching Hospital. The findings indicate that while a majority of the mothers had a fair level of knowledge about exclusive breastfeeding and recognized its benefits, there were noticeable gaps between knowledge and actual practice. Some mothers initiated complementary feeding

earlier than recommended due to cultural beliefs, work-related constraints, or misconceptions. The study also highlighted the positive role of healthcare professionals and antenatal education in influencing mothers' attitudes and decisions about exclusive breastfeeding. However, it became evident that knowledge alone is not sufficient to ensure adherence to exclusive breastfeeding practices. Supportive environments—both at home and in the workplace—are crucial in enabling mothers to practice exclusive breastfeeding for the recommended six months. In conclusion, sustained education, community awareness, and supportive health policies are essential to improve exclusive breastfeeding rates. Nurses, as frontline healthcare providers, play a pivotal role in promoting and supporting exclusive breastfeeding through continuous education, personalized counseling, and advocacy for breastfeeding-friendly environments.

5.5 Limitations of Study

Despite the valuable insights gained from this study, several limitations must be acknowledged. Firstly, the research was conducted in a single health facility—University of Benin Teaching Hospital—which may limit the generalizability of the findings to other settings or populations. The attitudes, knowledge, and practices of mothers in different geographical locations or healthcare settings may vary due to cultural, economic, or institutional differences. Secondly, the study relied on self-reported data collected through questionnaires, which could introduce bias. Some respondents may have provided socially desirable answers rather than accurate accounts of their breastfeeding practices. Additionally, recall bias may have affected the accuracy of responses, particularly concerning the duration and exclusivity of breastfeeding.

Despite these limitations, the study provides a useful foundation for further research and interventions aimed at improving exclusive breastfeeding among nursing mothers.

5.6 Recommendations

Based on the findings of this study, several recommendations are proposed to enhance the knowledge and practice of exclusive breastfeeding among nursing mothers:

1. There is a need for continuous and comprehensive health education programs on exclusive breastfeeding, especially during antenatal and postnatal visits. Healthcare providers should be adequately trained and motivated to deliver clear, consistent, and culturally sensitive breastfeeding messages.
2. Beyond the hospital setting, community outreach programs should be implemented to educate mothers, families, and the general public about the importance and benefits of exclusive breastfeeding. These campaigns should aim to dispel myths and cultural misconceptions that may hinder breastfeeding practices.
3. Since family members, especially grandmothers and spouses, play a critical role in influencing mothers' choices, efforts should be made to include them in breastfeeding education and counseling sessions. Their support can significantly improve mothers' confidence and commitment to exclusive breastfeeding.
4. For employed mothers, breastfeeding-friendly policies such as paid maternity leave, breastfeeding breaks, and designated nursing areas at workplaces should be promoted and enforced to encourage continued exclusive breastfeeding.

5.7 Suggestion for Further Study

Although this study has provided valuable insights into the knowledge and practice of exclusive breastfeeding among nursing mothers attending the Infant Welfare Clinic at the University of Benin Teaching Hospital, there is still a need for further research in this area.

1. Future studies could expand the scope by including multiple health institutions or rural communities to allow for broader generalization of findings.
2. Additionally, qualitative research approaches such as in-depth interviews or focus group discussions could be employed to explore the personal experiences, cultural beliefs, and emotional factors that influence mothers' decisions regarding exclusive breastfeeding. This would provide a deeper understanding of the barriers and enablers from the mothers' perspectives.

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APPENDIX

DEPARTMENT OF NURSING SCIENCE

FACULTY OF NURSING SCIENCES

SCHOOL OF BASIC MEDICAL SCIENCES

UNIVERSITY OF BENIN, BENIN CITY, EDO STATE

Dear Respondent,

QUESTIONNAIRE

I am **Adenomoh Martha Osemudiamen**; a 500L student in the above name institution. I am carrying out a research study on the topic: "**Knowledge, Attitude And Practice Towards Exclusive Breastfeeding Among Nursing Mothers Attending Infant Welfare Clinic In University Of Benin Teaching Hospital** ". Kindly assist me by indicating your opinion where necessary.

This study is strictly for academic purpose and you are hereby assured that all information supplied will be treated in a strictly confidential manner.

Thank you.

Yours faithfully,

Adenomoh Martha Osemudiamen

SECTION A: SOCIO-DEMOGRAPHIC INFORMATION

1. Age:[ ] Below 20 [ ] 20–24 [ ] 25–29 [ ] 30–34 [ ] 35 and above

2. Marital Status: [ ] Single [ ] Married [ ] Divorced/Separated [ ] Widowed

3. Educational Level: [ ] No formal education [ ] Primary education [ ] Secondary education [ ] Tertiary education

4. Occupation: [ ] Unemployed [ ] Trader [ ] Civil Servant [ ] Artisan [ ] Others: _____

3. Number of Children: [ ] 1 [ ] 2–3 [ ] 4–5 [ ] More than 5
4. Religion**:** ☐ Christianity ☐ Islam ☐ Traditional ☐ Others (please specify):

   _____
5. Tribe : Bini ( ) Esan ( ) Yoruba ( ) Igbo ( ) Hausa ( ) others _____

SECTION B: KNOWLEDGE OF EXCLUSIVE BREASTFEEDING AMONG NURSING MOTHERS

6. Have you heard of exclusive breastfeeding (EBF)? [ ] Yes [ ] No

7. What does exclusive breastfeeding mean? [ ] Breast milk only for 6 months [ ] Breast milk and water [ ] Breast milk and other foods [ ] Not sure

8. What is the recommended duration for exclusive breastfeeding? [ ] 1 month [ ] 3 months [ ] 6 months [ ] 12 months

9. Can breast milk alone meet a baby's nutritional needs for the first 6 months? [ ] Yes [ ] No [ ] Not sure

10. Are you aware that breast milk contains antibodies that protect babies from infections? [ ] Yes [ ] No

11. Exclusive breastfeeding reduces the risk of diarrhea and malnutrition in babies: [ ] Strongly agree [ ] Agree [ ] Disagree [ ] Strongly disagree

SECTION C: ATTITUDE TOWARDS EXCLUSIVE BREASTFEEDING AMONG NURSING MOTHERS

S/N	Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
12	I believe exclusive breastfeeding is important for my baby’s health.				
13	I feel confident and comfortable breastfeeding my baby exclusively.				

S/N	Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
14	I believe giving water or herbal mixtures to a newborn is not necessary.				
15	Breastfeeding does not affect the shape of my breasts.				
16	Breastfeeding exclusively is not stressful and tiring.				

SECTION D: PRACTICE OF EXCLUSIVE BREAST FEEDING AMONG NURSING MOTHERS

17. Have you practiced exclusive breastfeeding with your child(ren)? [ ] Yes [ ] No

18. If yes, for how long? [ ] Less than 1 month [ ] 1–3 months [ ] 4–5 months [ ] 6 months

19. If no, why not? (Tick all that apply) [ ] Belief baby wasn't getting enough milk [ ] Cultural/family influence [ ] Returned to work [ ] No support from partner/family [ ] Others (please specify): _____

20. What influenced your decision to practice or not practice exclusive breastfeeding? [ ] Advice from health professionals [ ] Family and friends [ ] Personal belief [ ] Work/school demands [ ] Others: _____

21. Have you been taught proper breastfeeding techniques by a health worker? [ ] Yes [ ] No

SECTION E: FACTORS INFLUENCING THE PRACTICE OF EXCLUSIVE BREASTFEEDING AMONG NURSING MOTHERS

S/N	Items	Strongly Agree	Agree	Disagree	Strongly Disagree
1	I have received enough information from healthcare providers about exclusive breastfeeding.				
2	My level of education has positively influenced my decision to exclusively breastfeed.				

S/N	Items	Strongly Agree	Agree	Disagree	Strongly Disagree
3	Cultural beliefs and practices discourage me from practicing exclusive breastfeeding				
4	My work or school schedule makes it difficult to exclusively breastfeed.				
5	The support I receive from my partner and family encourages me to practice exclusive breastfeeding.				
6	I stopped exclusive breastfeeding early because I felt my breast milk was not enough for my baby.				
7	The availability of infant formula affects my decision to continue exclusive breastfeeding.				
8	Health problems (either mine or my baby's) made exclusive breastfeeding difficult for me.				
9	Lack of breastfeeding-friendly spaces in public and at work discourages me from practicing exclusive breastfeeding.				