

**CHALLENGES TO EXCLUSIVE BREASTFEEDING COMPLETENESS AMONG
NURSING MOTHERS IN IKPOBA-OKHA LOCAL GOVERNMENT AREA**

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JUNE 2025

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**A RESEARCH REPORT SUBMITTED TO THE DEPARTMENT OF HEALTH,
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CERTIFICATION

We, the undersigned, certify that this work was carried out by **Ekinadoese EHIGIATOR** in the Department of Health, Safety and Environmental Education, Faculty of Education, University of Benin, Benin City.

.....
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Supervisor

DATE:

.....
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Head of Department

DATE:

DEDICATION

This project is dedicated to God Almighty for His unfailing love and support towards my academic career, and to my loving family, Osifo Ehigiator.

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Her deepest gratitude goes to God Almighty who has been with her from the beginning to the end of this program, and for making this project work successful.

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Finally, the researcher will not fail to appreciate my family, most especially her children; Borngreat, Sharon, Zara and Odosa Ehigiator; friends and course mates for their love, care and support in one way or the other which kept me going in the course of embarking on the program. May God richly bless you all in Jesus Name. Amen

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ABSTRACT

This study examined the challenges influencing exclusive breastfeeding completeness among nursing mothers in Ikpoba-Okha Local Government Area of Edo State, Nigeria. Six research questions were raised and three hypotheses were formulated to guide the study.

The research adopted a descriptive survey design to identify factors affecting mothers' ability to complete the EBF period and to explore the influence of education, occupation, and parity on breastfeeding practices. A sample of 215 nursing mothers was drawn from eight functional Primary Health Care Centres using a multistage sampling technique. Data were collected with a validated questionnaire and analyzed using descriptive statistics and chi-square tests at a 0.05 significance level.

Findings revealed that while most mothers initiate exclusive breastfeeding, many discontinue prematurely due to challenges such as short maternity leave, inadequate family and workplace support, cultural pressures to introduce water or artificial feeds, breast engorgement, and perceived insufficiency of breast milk. Educational level and occupational status significantly influenced EBF completion, whereas parity showed minimal effect. The study recommends enhanced public health education, workplace breastfeeding policies, and community support initiatives to promote exclusive breastfeeding practices. These findings contribute valuable insights for policymakers, healthcare providers, and maternal health advocates seeking to improve child survival and maternal wellbeing in Nigeria.

CHAPTER ONE

INTRODUCTION

Background of the Study

Breastfeeding is a natural and critical phase of life for the optimal survival of the newborn, most especially for the first half of the infant's life, thus the necessity for the act to be effectively introduced and incorporated into the feeding process of the newborn. In order to achieve optimal health with regard to this, one should be concerned to the inadequacies related to the nurturing process of the newborn; the extent to which it is observed, the influence of education and environmental factors to its utilization and completeness.

Breastfeeding is a necessary process important to the development of the newborn child. Exclusive breastfeeding (EBF) means that an infant should be breastfed for the first of life to achieve optimal child morbidity and mortality (Aminu & Rahman *et al.*, 2020). According to the World Health Organization, exclusive breastfeeding means that the infant receives only breast milk. No other liquids or solids are given, not even water, with the exception of oral rehydration solution, or drops/syrups of vitamins, minerals or medicines (WHO, 2019).

Exclusive Breastfeeding tops the order of life saving interventions for newborns. A child who is exclusively breastfed is 14 times less likely to die in the first 6 months as compared to his/her counterpart. Every infant and child has the right to good nutrition

according to the “Convention on the Rights of the Child”. Undernutrition is associated with 45% of child deaths. Globally in 2022, 149 million children under ages 5 were estimated to be stunted (too short for age), 45 million were estimated to be wasted (too thin for height), and 37 million were overweight or obese. About 44% of infants (0 – 6 months old) are exclusively breastfed. Few children receive nutritionally adequate and safe complementary foods. (WHO, UNICEF; 2023).

Exclusive breastfeeding is a public health intervention and one of the most significant strategies for improving infant survival rate. In order to achieve optimal growth and overall wellbeing of the child, the world health organization as a consequence of evidenced based findings, has recommended that, infants within one hour of life should be initiated and exclusively breastfed for the first 6months of life after which complementary food should be introduced as breastfeeding continues for up to one or two years of life (WHO, 2019). The immunological properties of breast milk contribute to ensuring adequate nutritional status, proper growth and develop morbidity prevention capacity in children. In addition, Exclusive Breast Feeding, substantially reduces the risk of morbidity and mortality from infectious diseases by eliminating the chance of contaminating from formula milk or other fluids and foods.

The uptake of Exclusive Breastfeeding (EBF) is low globally including Nigeria despite its benefits and interventions. Although it is now well accepted that EBF is enormously important to infants’ health and nutritional status, the most appropriate age

for introducing other food is still debated. Before 2001, the World Health Organization (WHO) recommended introducing solid food at 4–6 months. In 2023, the recommendation was changed to 6 months (WHO, 2023). This change was, in fact, driven by new evidence about benefits of longer term EBF against infectious diseases and adequacy of breast milk to meet infants' nutritional requirements of beyond 4 months of age (Kramer *et al.*, 2018).

Breastfeeding is of immense benefit to both mother and child with the potential of preventing about 0.8 and 0.02 million annual deaths in children less than five years and also from breast cancer respectively. While breast milk enhances neurological development and protects the child from diseases like diarrhea, pneumonia and malnutrition, breastfeeding promotes the health of the mother by improving child birth spacing and reducing the risk of diseases such as Type 2 diabetes, ovarian and breast cancer, etc. It also plays an important role in increasing the household income and improving food security (Kramer, 2018). More so, early initiation and practice of exclusive breastfeeding has been reported to reduce neonatal mortality by up to 22% and infant mortality by 13% respectively (Edmond *et al.*, 2021).

In spite of its countless benefits, many efforts to promote exclusive breastfeeding (EBF) have yielded less than desired outcomes. This maybe to related to the challenges mothers encounter when breastfeeding. Exclusive breastfeeding challenges occur at the maternal, infant, family, healthcare system, and at community and national level. The

challenges to practice of EBF include: cracked or sore nipples, breast engorgement (Qureshi, 2019), insufficient breast milk production (Redshaw, 2018), disapproval and discomfort of breastfeeding in public (Boyer, 2017), insufficient breastfeeding support from society and healthcare providers (Andrew, 2020), short maternity leave periods (Bhutta, 2019), difficulties associated with combining breastfeeding and other maternal responsibilities (Ludlow, 2012), and emotional stress (Dewey, 2012). A number of variables have also been noted in the literature to predict EBF practice. Among them are infant's age (Agho, 2016), maternal age, marital status (Yatich, 2019), formal educational level (Asemahagn, 2020), and occupation (Perez-Escamilla, 2022). Common to mothers who practised EBF and those who practised mixed/formula feeding, the top three breastfeeding challenges were: breast milk alone not meeting the nutritional needs of babies, short duration of maternity leave, and socio-cultural pressure to introduce water and artificial feeds (Diji *et al.*, (2020). The topmost challenge to EBF practice, "belief that breast milk alone is not sufficient in meeting the nutritional needs of babies" is a well- noted barrier in the literature (Goosen, 2019).

In 2012, WHO member states endorsed and committed to support implementation and monitoring of the "Comprehensive implementation plan on maternal, infant and young child nutrition" with one of the six targets being, to increase to at least 50% the rate of exclusive breastfeeding for the first 6 months by 2025 (WHO, 2016). Sadly, West and Central Africa had the lowest rates with Nigeria having one of

the lowest and declining rates in the African continent from (Source) 28% in 1999 to 17% in 2013 and less than 17% in 2013, this is in spite of the fact that, in the 2013 National Demographic and Health Survey, almost all children in Nigeria (98%) have been duly breastfed at some time or the other (National Population Commission (NPC, Nigeria) & ICF International (2014). This implies that although most Nigerian nursing mothers appreciate the importance of exclusive breastfeeding which accounted for the 98% but a very few number of them (15%) endured the challenges of exclusive breastfeeding down to the 6 months requirement as specified. A study of Chineke *et al.* (2017) investigated mothers in a South East tertiary health care facility found that while most of the respondents were aware of exclusive breastfeeding (92.5%), only 24% of the respondents were practicing exclusive breastfeeding with the non-complaint mothers complaining of several challenges.

As regards age of infants and exclusive breast feeding, there is consistency with the results of studies conducted in Nigeria (Agho, 2016), Ghana (Diji *et al.*, 2020), Sri Lanka Jedrychowski, *et al.*, 2012) and Iran (Koosha, 2023). From these studies it was found that an increase in the monthly age of infants was associated with a reduced likelihood of being exclusively breastfed. This may be related to the postnatal maternity leave period and the traditional home confinement of nursing mothers which occurs in the first few months after delivery, thereby creating opportunities for EBF practice.

Another factor to exclusive breastfeeding practice is the parity which is the number of children a woman has given birth. This construct is closely related to the age of the nursing mother but they are quite different. An older woman in her 40s may just been having her first child while some women in their late 20s to early 30s may have up to two or more children. It can be argued that the position of a particular child under investigation may affect a woman practice of exclusive breastfeeding. Studies have found that the higher the number of children, the less likely a woman would want to do exclusive breastfeeding (Diji, *et al*, 2020; Agho *et al*, 2016). However, it has been reported that younger women especially those not married tends to decline EBF for beautification reasons (Avery, 2019). Although Diji *et al.*, (2020) found that between mothers who practiced exclusive breastfeeding and those who used mixed/formula feeding, there were no statistically significant differences in their marital status and religion.

In view of the foregoing, it can be seen that the journey of exclusive breast feeding down to the end of the 6th month can be challenging across several categories of nursing mothers. The purpose of this study is to glean from current nursing mothers their exclusive breastfeeding challenges and their disposition towards completing the breastfeeding program up to the end of the 6" month which is required for optimal infants' health, the major assumption of this study is that the current challenges presented by the nursing mothers influences their current attitude/disposition towards

Exclusive breastfeeding completeness which would in turn lead to overt behavioural outcome (completeness or quit). Although, a number of studies have investigated this subjects, it is expected changes may occur in the study results based on time of investigation and location of investigation.

Statement of the Problem

According to the National Demographic and Health Survey (NDHS, 2013), almost all children in Nigeria (98%) have been breastfed at some time or the other. Chineke *et al.*, (2017) found that 92.5% of women are aware of the benefit of exclusive breastfeeding. In spite of this high awareness of the benefit of exclusive breastfeeding to the infants in the country, Nigeria still record the worse indices of exclusive breastfeeding completeness in Africa ranging from 28% in 1999 to 32% in 2021 (Koosha *et al.*, 2023). Most of the women started it at the beginning but drop off the program somewhere along the line before the end of the sixth month which is the requirement for optimal infant growth and development.

Obviously, while the benefit of exclusive breastfeeding is known, the challenges associated to religiously completing it across women of various backgrounds and occupation which are enormous and this could be blamed for the drop out which is not really known to the researcher. It is against this background, the study will be carried out to determine the challenges to exclusive breastfeeding completeness among nursing mother in Ikpoba-Okha Local Government Area.

Research Questions

The following research questions were raised to guide the study.

1. What proportion of nursing mothers in Ikpoba-Okha Local Government Area practice Exclusive Breastfeeding?
2. What are the challenges to exclusive breastfeeding completeness among nursing mothers in Ikpoba-Okha Local Government Area?
3. Does educational level influence the challenges to exclusive breastfeeding completeness among nursing mothers in Ikpoba-Okha Local Government Area?
4. Does occupation influence the challenges to exclusive breastfeeding completeness among nursing mothers in Ikpoba-Okha Local Government Area?
5. Does parity influence the challenges to exclusive breastfeeding completeness among nursing mothers in Ikpoba-Okha Local Government Area?
6. What are the perceived solutions to exclusive breastfeeding completeness among nursing mothers in Ikpoba-Okha Local Government Area?

Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significance.

1. Educational level of nursing mothers does not significantly influence the challenges to exclusive breastfeeding completeness.
2. Occupation of nursing mothers does not significantly influence the challenges to exclusive breastfeeding completeness.

3. Parity does not significantly influence the challenges to exclusive breastfeeding completeness.

Purpose of the Study

The purpose of this study is to ascertain the challenges to exclusive breastfeeding completeness in Ikpoba-Okha Local Government Area. Specifically, the study will investigate;

- The proportion of nursing mothers in Ikpoba-Okha Local Government Area who practice exclusive breastfeeding.
- The challenges to exclusive breastfeeding completeness among nursing mothers in Ikpoba-Okha Local Government Area.
- The educational level influence on the challenges to exclusive breastfeeding completeness among nursing mothers in Ikpoba-Okha Local Government Area.
- The occupational influence on the challenges to exclusive breastfeeding completeness among nursing mothers in Ikpoba-Okha Local Government Area.
- The parity influence on the challenges to exclusive breastfeeding completeness among nursing mothers in Ikpoba-Okha Local Government Area.
- The perceived solutions to exclusive breastfeeding completeness among nursing mothers in Ikpoba-Okha Local Government Area.

Scope/Delimitation of the study

The content scope of the study bothers on the current challenges towards Exclusive breastfeeding completeness. Other variables covered in the study are; educational status and work status Influence on exclusive breastfeeding completeness as well as their current exclusive breastfeeding status. The geographical scope covers all the nursing mothers in Ikpoba-Okha Local Government Area. It will not extend its scope to other cities or region to maintain focus and manage resources effectively.

The population of nursing mothers will be reached through a structured sampling approach. The researcher will collaborate with key healthcare facilities, including government hospitals, private clinics and local primary healthcare centers, to identify and recruit participants for the study. Also, community health workers and leaders will be engaged to access mothers in residential areas. This approach will ensure a representative sample size of nursing mothers, including those who may not frequently visit healthcare facilities. The study will also utilize online platforms and social media groups dedicated to mothers' health to reach a broader audience and gather data efficiently.

Significance of the Study

The findings of this study will be used by Ministries of health and other relevant stakeholders in charge of infant and maternal health to guide policies and programs

geared towards addressing the current infant mortality and morbidity rate in Ikpoba-Okha Local Government Area.

The study will also be of significance to Non-governmental organizations (NGOs) and charity foundations focused on public health and child welfare. They can use the findings to design and implement targeted outreach programs and campaigns that address the specific barriers to exclusive breastfeeding identified in the study.

In addition, the study will be significant to healthcare professionals such as pediatricians, nurses, and midwives. The research will provide them with deeper understanding of the challenges their patients face, thereby enabling them to offer more effective support and counselling to nursing mothers. Furthermore, this findings of the study will be of use to academic institutions and researchers. It will contribute to the existing body of knowledge on breastfeeding practices in Nigeria, serving as a valuable reference for future studies and a foundation for further research into related public health issues.

It will also be significant to nursing mothers themselves and their families. The ultimate goal is to improve the health for infants by promoting complete exclusive breastfeeding. The findings will directly inform programs and initiatives that help mothers overcome challenges, leading to healthier babies and a more joyful motherhood experience. The entire community will benefit from a healthier next generation.

Operational Definition of Terms

Work status: This refers to whether the nursing mother is a full house wife, partial house wife or a full time worker. It also include whether the woman is working in a well-structured private settings like banks, or in self-employed business or a flexible structure like public or private teaching.

Exclusive Breastfeeding Status: This is whether the women are currently in the exclusive breastfeeding program or have stopped.

Parity: This refers to number of children birthed by a woman.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter contains a review of related literature to the study and it is carefully and succinctly done under the following headings;

- Theoretical framework of the study
- Concept of exclusive breastfeeding
- Exclusive breastfeeding prevalence among mothers
- Barriers to the practice of exclusive breastfeeding among mothers
- Mothers attitude towards exclusive breastfeeding completeness
- Work status and exclusive breastfeeding completeness
- Educational status and exclusive breastfeeding completeness
- Parity and exclusive breastfeeding completeness
- Summary of literature reviewed

Theoretical Framework of the Study

The Theory of Reasoned Planned Behaviour, TPB, is used as the theoretical framework to guide the study. The Theory of Planned Behavior (Figure 1) is one of the theoretical approaches that has been widely used by health psychologists to help understand health behaviors and to develop appropriate interventions (Ajzen, 1991). The principal determinant of behavior in TPB is intentions and that intentions are determined by three main constructs: (a) attitudes, (b) subjective norms, and (c)

perceived behavioral control. An infant's feeding decisions are affected by a wide range of psychological, social, clinical, cultural, and individual characteristics: factors such as age, ethnicity, educational status, and personality variables (Bai *et al.*, 2016). The theory of Planned Behaviour assumes that individuals act rationally, according to their attitudes, subjective norms, and perceived behaviors (Ajzen, 1991).

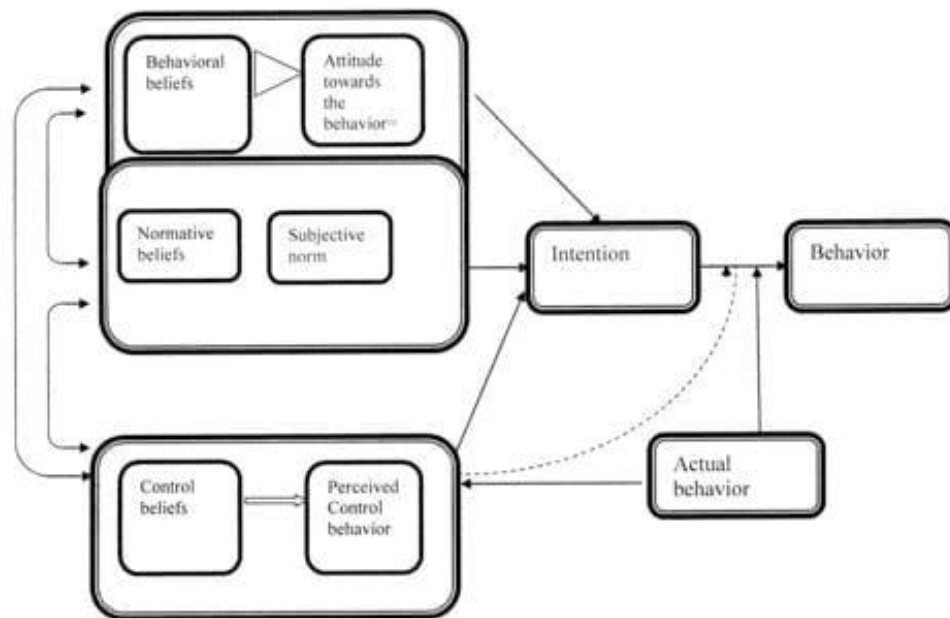


Figure 1: illustration of the theory of planned behaviour

Source: Thomas (2016).

Research shows that intention plays an important role in determining breastfeeding duration (Dennis, 2020). The theory of planned behavior (TPB) postulates that attitudes, subjective norm, and perceived behavioral control influence intention to perform a behavior (Ajzen, 1991). Intention is an indicator of how hard a person is

willing to try, or how much effort they are willing to put into performing a behavior (Ajzen, 1991). The probability that a person will actually perform a behavior increases as the strength of intention increases (Fishbein *et al.*, 1975). Therefore, intention is the antecedent of actual behavior (Ajzen *et al.*, 1986). Intention to breastfeed is influenced by a mother's attitude toward breastfeeding, whether she views it as the normal way to feed an infant, and how much control she feels she has over the breastfeeding experience. The stronger a mother's intention to breastfeed exclusively the more likely she should be to actually breastfeed exclusively. Despite the fact that intention seems to play a crucial role in breastfeeding behavior, little is known about the current state of measurement for intention to breastfeed.

TPB is influenced by three focal categories of beliefs: (a) beliefs about the outcomes of a particular behavior, (b) beliefs about the expectations of others, and (c) beliefs about the presence of factors that might encourage or prevent a particular behavior (Giles *et al.*, 2015). According to Ajzen (1991), attitude toward behavior is determined by the individual's beliefs about outcomes or attributes of performing the behavior (behavioral beliefs). Subjective norm is determined by normative beliefs, and normative belief is determined by the attitude of a society in valuing and appreciating a particular behavior of the subject. Perceived behavioral control (PBC) is influenced by specific situational factors and is based on the factors that determine a subject's ability to perform or not perform a particular behavior. Perceived behavioral control is affected

by both intentions and behaviors. The intention to perform a desired behavior is based on varying perceptions of individuals in performing the desired behavior (Ajzen, 1991). Women who have the perception that breastfeeding is difficult to perform are less likely to breastfeed and may encourage the use of formula feeding among postpartum women.

Evidence shows that the culture and individual characteristics have an impact on the breastfeeding behaviors of women after delivery (Bai *et al.*, 2016; Dyson *et al.*, 2010). The significant predictors of intention to breastfeed among the low income in the southern United States were self-efficacy, perceived social support (Mitra *et al.*, 2019) attitudes, and previous breastfeeding experience (Kloeblen *et al.*, 2020). The theory of planned behavior will help in understanding the reasons why certain mothers are not interested in breastfeeding, thus helping to develop appropriate promotion strategies to improve exclusive breastfeeding (Bai *et al.*, 2016). The fundamental foundation of TPB is that the immediate antecedent of a behavior is the person's intention to perform the behavior. Behavioral beliefs explain that a behavior is likely to be performed if a person has positive attitudes toward the behavior. Evidence-based research conducted by Thome (2006) indicated that the attitude of breastfeeding women toward intention to breastfeeding can be measured through these beliefs.

Measurement of intention varies widely across the literature. Some authors present participants with a question that can be answered as: a) yes, I intend to breastfeed, b) I intend to feed both breast and human milk substitute, or c) I do not

intend to breastfeed (Declercq *et al.*, 2017; Perrine *et al.*, 2012). Other articles use a Likert scale (Bai, 2016; Wilhelm, 2015; Nommsen-Rivers, 2012) to determine the strength of breastfeeding intention. Formatting of the questions and the Likert scales varied according to the author.

Conceptual Definition of Exclusive Breastfeeding

Labbok (1990) reported a simple, research based framework to define the method of infant feeding at a single time point. The classifications were based on research that indicated that the benefits of breast milk are dose dependent. Therefore, it is important to determine the amount of breast milk an infant has received. Exclusive breastfeeding was defined as no other liquid or solid food being given to the infant. An infant would be considered as almost exclusive if they received breast milk and vitamins, minerals, water, juice or small amounts of ritualistic feedings along with breast milk. The category of full breastfeeding included infants who were either exclusively or almost exclusively breastfeeding. Infants who were receiving breast milk and non-human milk were classified as partially breastfed. Partial breastfeeding was further classified into low, medium and high categories. Infants who were classified as low partial breastfeeding were receiving the least amount of breast milk. The World Health Organization (WHO, 2008) used Labbok and Krasovec's definitions to measure feeding method with one small change. Instead of "exclusive" and "almost exclusive", the WHO used the wording "exclusive" and "predominant" to define full breastfeeding. According

to the WHO definition, exclusive breastfeeding can include oral rehydration solutions, vitamins, minerals and medicines (WHO, 2008). Predominant breastfeeding includes ORS, vitamins, minerals, medicines, water, water-based drinks, and ritualistic fluids. Neither definition handles supplementation with formula for medical reasons such as weight loss or hypoglycemia. The WHO definition includes medications, but it is unclear if formula could be considered a medication in these instances. For the purposes of this thesis, formula supplementation for medical reasons was considered a medication because pediatricians recommend formula supplementation as a treatment for a number of medical issues in the immediate postpartum period. Physicians recommend supplementation when an infant has hyperbilirubinemia, hypoglycemia and poor weight gain. Lactation consultants also use formula as a way to encourage and teach an infant to breastfeed effectively. It is because of this that formula supplementation for medical reasons were defined as a medication for this thesis.

Prevalence of Exclusive Breastfeeding in Nigeria

There are increased concerns globally and regionally about the low and in some cases, declining rates of breastfeeding. In Geneva 2016, the United Nations human rights experts advocated that, countries need to stop the inappropriate marketing of breast milk substitutes and at the same time, emphasize and pro-mote breastfeeding as a human right, with the intention of protecting and supporting both mother and child (UN Special Rapporteur, 2016). Notwithstanding, there appears to be a current increase

in the number of infants 06 months being exclusively breastfed globally (46%) when compared with the period from 2007 to 2014, where only about 36% was reported to be exclusively breastfed (WHO, 2020).

However, while Eastern and Southern Africa had the highest rates of exclusive breastfeeding. West and Central Africa had the lowest rates with Nigeria having one of the lowest and declining rates in the African continent from 28% in 1999 to 17% in 2013. This is in spite of the fact that, almost all children in Nigeria (98%) have been breastfed at some time or the other [National Population Commission, NPC, & ICF International, 2014; WHO, 2012).

Although the mean duration of breastfeeding is on the increase, the rate of EBF and initiation of breastfeeding is low according to recent systematic review (Adewuyi, 2016). Studies in urban and rural communities in the southeast revealed that only 35.9% and 10.0% of women practiced EBF, respectively (Ugboaja, 2013; Aniekan, 2017). As far back as 1987 a study in Ibadan, Southwest Nigeria, revealed that after 12 months of follow-up, none of the babies of urban elite women were being breastfed compared to 100% and 80.8% of babies in the rural poor and urban poor groups, respectively (Osinusi, 1987).

Benefits of Exclusive Breastfeeding

There is an increasing evidence that exclusive breastfeeding m(EBF) up to six-month of age has profound biological effects with important consequences on health

and nutritional outcomes of children (Horta, 2019; Victora, 2013). The immunological properties of breast milk contribute to ensuring adequate nutritional status, proper growth and develop morbidity prevention capacity in child body (Lamberti, 2011; Field, 2018). In addition, EBF substantially reduces the risk of morbidity and mortality from infectious diseases by eliminating the chance of contamination from formula milk or other fluids and foods (Lamberti, 2011).

Although it is now well accepted that EBF is enormously important to infants' health and nutritional status, the most appropriate age for introducing other food is still debated. Before 2001, the World Health Organization (WHO) recommended introducing solid food at 4-6 months. In 2001 the recommendation was changed to 6 months (WHO, 2001). This change was, in fact, driven by new evidence about benefits of longer-term EBF against infectious diseases and adequacy of breast milk to meet infants' nutritional requirements of beyond 4 months of age (Kramer, 2018). However, sometimes the evidence has been questioned (Fewtrell, 2011), and some experts have promoted a less stringent recommendation that is more akin to the pre-2001 WHO policy (British Dietetic Association, 2013). Part of this controversy is caused by findings of some individual studies (Reilly, 2020). The debate over the optimal duration of EBF is centered mainly on the choice between the known protective effect of EBF against infectious diseases and the insufficiency of breast milk alone to satisfy babies' nutritional requirements (known as weanling's dilemma).

In a bid to ascertain the effect of termination of exclusive breast feeding before the recommended 6 months, Khan (2017) examined three waves of Bangladesh Demographic and Health Survey data were analysed using multivariate regression. The study found that lack of EBF increased the odds of diarrhea, fever and ARI. Among the babies aged 6 months or less 27.37% of diarrhea, 13.24% of fever and 8.94% of ARI could have been prevented if EBF was not discontinued. If EBF was terminated during 0-2 months, 2-4 months the odds of becoming underweight were 2.16 and 2.01 times higher, respectively, than babies for whom EBF was not terminated. Consequently, (Khan 2017) concluded that Children who are not offered EBF up to 6 months of their birth may suffer from a range of infectious diseases and under-nutrition. Health promotion and other public health interventions should be enhanced to encourage EBF at least up to six-month of birth.

Infant benefits. Exclusive breastfeeding between six months and two years old has been associated with reducing the risk of allergic disease, obesity, type II diabetes, hypertension, and hypercholesterolemia in the later lives of children (Godfrey, 2019). There is convincing evidence stating that the risk of occurrence of otitis media, gastroenteritis, respiratory illness, sudden infant death syndrome, necrotizing enterocolitis, obesity, and hypertension is decreased with exclusive breastfeeding (Al Binali, 2012). Evidence also shows that breastfed babies have improved cognitive development and increased bonding with the mother (Rempel, 2021). Exclusive

breastfeeding has been shown to decrease the incidence or severity of bacterial meningitis, bacteremia, diarrhea, and urinary tract infection, late-onset sepsis in preterm babies, lymphoma, leukemia, Hodgkin's disease, and asthma (Kramer, 2012).

Maternal benefits. Exclusive breastfeeding decreases the chance of developing chronic illnesses related to obesity and the development of ovarian and breast cancer among women (Stevens *et al.*, 2008). Breastfeeding reduces the incidences of postpartum bleeding, maternal obesity by an earlier return to pre-pregnancy weight, and developing breast and ovarian cancer (Godfrey, 2019). EBF provides additional emotional benefits to the mother. In addition, evidence shows that EBF mothers are less likely to develop depressive symptoms (Stuebe, 2021).

Social benefits. There is strong evidence that breastfeeding has many health benefits other than maternal and infant and includes economic and social benefits to the family, the healthcare system, and the employer (Ma & Brewer-Asling, 2020). The healthcare costs associated with exclusive breastfeeding are reduced as breastfed infants mostly require fewer sick care visits, prescriptions, and hospitalization (Chow, 2015). Another notable social benefit of breastfeeding is the effect on the environment. According to Ball (2016) study findings, it was indicated that EBF will (a) decrease the demand of artificial teats, plastic bottles, and milk powder tins; (b) reduce the levels of pollutants released; and (c) decrease the depletion of natural resources used to produce them. Breastfeeding is considered as one of the major public health strategies for improving

infant and child morbidity and mortality, improving maternal morbidity because of the wide range of benefits of exclusive breastfeeding to the mother and infant (Piñeiro-Albero *et al.*, 2013; USBFC, 2014). The positive aspects of breastfeeding include advantages in nutrition, promotion of infant growth, and development and improvements to social, psychological, and educational interactions. A wide range of health benefits of exclusive breastfeeding to the infant and mother have been well documented in various evidence-based research studies (WHO, 2003).

Barriers to the Practice of Exclusive Breastfeeding among Mothers

In spite of its countless benefits, many efforts to promote exclusive breastfeeding (EBF) have yielded less than desired outcomes. This may be related to the challenges mothers encounter when breastfeeding. Exclusive breastfeeding challenges occur at the maternal, infant, family, healthcare system, and at community and national level. The challenges to practice of EBF include: cracked or sore nipples, breast engorgement (Qureshi, 2019), insufficient breast milk production (Redshaw, 2018), disapproval and discomfort of breastfeeding in public (Boyer, 2017), insufficient breastfeeding support from society and healthcare providers (Andrew, 2020), short maternity leave periods (Bhutta, 2019), difficulties associated with combining breastfeeding and other maternal responsibilities (Ludlow, 2021), and emotional stress (Dewey, 2012). A number of variables have also been noted in the literature to predict EBF practice. Among them are

infant's age (Agho, 2016), maternal age, marital status (Yatich, 2019), formal educational level (Asemahagn, 2020), and occupation (Perez-Escamilla, 2022).

Common to mothers who practised EBF and those who practised mixed/formula feeding, the top three breastfeeding challenges were: breast milk alone not meeting the nutritional needs of babies, short duration of maternity leave, and socio-cultural pressure to introduce water and artificial feeds (Diji *et al.*, (2020). The topmost challenge to EBF practice, "belief that breast milk alone is not sufficient in meeting the nutritional needs of babies" is a well- noted barrier in the literature (Goosen, 2019). This may be related to the inability of mothers to distinguish a "hunger cry" from other cries of the infant (Goosen, 2019) and ignorance about the adequacy of breast milk to provide the required nourishment (Kaufman, 2010). As succinctly stated in WHO (2009), the breast milk of an adequately nourished mother provides all the nutritional energy requirements for the first six months of an infants' life, and continues to provide up to half the energy requirements during the second half of the first year, and about one-third during the child's second year of life. This therefore calls for intensification of health education on the adequacy of breast milk to meet the nutritional needs of infants at different stages of their life and the need to assist caregivers in differentiating between the various cries of infants.

It is well reported in several studies (Diji *et al*, 2020) that nursing mothers are often culturally pressured to give water and artificial feeds to infants which could be

regarded as one of the most constraining factor to nursing mothers in EBF. Considering the impact society has on mothers' initiation and duration of breastfeeding (Graham, 2012), public education on breastfeeding should be intensified so as to stimulate societal support for EBF practice. Midwives, public health and community health nurses can have targeted education at close relations of the pregnant woman during antenatal and postnatal periods to enhance support for EBF.

Other pressing challenges of EBF were emotional stress, lack of support from society and healthcare professionals, low breast milk production, cracked or sore nipples, breast engorgement and shyness when breastfeeding in public. Some of these challenges also, reiterate the need for healthcare professionals to continually offer appropriate perinatal guidance and support.

Predictors of Exclusive Breastfeeding Completeness

Work Status: Work environment provide enormous challenges to women that are determined to exclusively breast feed their children up to the required 6 months. In Nigeria the maternity is 3 months in government work while in private work settings like banks and telecommunications the maternity leave is shorter. Some private even discriminate against married women in terms of employment in order avoid giving maternity leave all together. However, Lomotey, (2017) found in their study that women employed in the public sector had higher EBF rates. In spite of this, Diji *et al.*, (2020) found that the women indicated short maternity leave period as the topmost

challenge, similar to previous studies (Bhutta, 2019; Guendelman, 2009; Rojjanasrirat, 2010). Increased interruption of EBF and early weaning due to nursing mothers' resumption of work before the sixth month after delivery (Escuder, 2007; Bento, 2004) has also been reported. Extending the duration of maternity leave period (Gladzah, 2013; Aryeetey, 2013), especially in developing countries where optimal breastfeeding is a cost-effective intervention for reducing infant morbidity and mortality (Bhutta, 2019) is advocated for. Hence, reviewing the labour law on maternity leave to accommodate an extended maternity leave in addition to the employee's annual leave can further improve EBF practice rates among working mothers. In contrast to several studies (Biadgilign, 2018; Tan, 2011; Vaughnm, 2010), being unemployed was associated with a reduced likelihood of EBF practice in this study. Diji *et al.*, (2020) found that relative to mothers who were unemployed, those who were self-employed were 2.60 times more likely to practice EBF.

Educational status and age on EBF: the educational status has been found to be associated with EBF among mothers. Diji *et al.*, (2020), a significant association was found between EBF practice and maternal age, education, and infant's age. Older and educated women were more likely to exclusively breastfeed their infants as reported in previous studies (Asemahagn, 2020; Maonga, 2016). Older and more educated women may be relatively more confident and committed to breastfeeding than their younger

and less educated counterparts (Underwood *et al.*, 2006) due to the infant care experiences and education they have acquired over time (Brand, 2017; Chalmers, 2018).

Age, Parity and Exclusive Breastfeeding Completeness

As regards age of infants and exclusive breast feeding, there is consistency with the results of studies conducted in Nigeria (Agho, 2016), Ghana (Diji *et al.*, 2020), Sri Lanka (Jedrychowski, *et al.*, 2012) and Iran (Koosha, 2023). From these studies it was found that an increase in the monthly age of infants was associated with a reduced likelihood of being exclusively breastfed. This may be related to the postnatal maternity leave period and the traditional home confinement of nursing mothers which occurs in the first few months after delivery, thereby creating opportunities for EBF practice.

Another factor to EBF practice is the parity which is the number of children a woman has given birth. This construct is closely related to the age of the nursing mother but they are quite different. An older woman in her 40s may just been having her first child while some women in their late 20s to early 30s may have up to two or more children. It can be argued that the position of a particular child under investigation may affect a woman practice of EBF. Studies have found that the higher the number of children, the less likely a woman would want to do EBF (Diji, *et al.*, 2020; Agho *et al.*, 2016). However, it has been reported that younger women especially those not married tends to decline EBF for beautification reasons (Avery, 2019). Although Diji *et al.*, (2020) found that between mothers who practised EBF and those who used

mixed/formula feeding, there were no statistically significant differences in their marital status and religion. However, mothers who practised EBF were significantly older ($p=0.008$), had higher level of education ($p = 0.038$) and had younger infants ($p=0.000$) relative to their non-EBF counterparts (Diji *et al.*, 2020).

Mothers' Attitude towards Exclusive Breastfeeding Completeness

A number of studies have examined mother's attitude towards exclusive breastfeeding. (Balogun, 2018), conducted a comparative cross-sectional study in Ikeja and Ikorodu, an urban and a rural local government area of Lagos state, Nigeria. Balogun *et al.*, (2018) found an overall positive attitude was 52.4% and 57.3% among urban and rural respondents respectively. (Deji, 2016), studied nursing mothers in Osogbo local government area, Nigeria using convenience sampling method. Odu *et al.*, (2016) found that 75.6% of the nursing mothers practiced EBF on demand had good attitude towards EBF.

Research has repeatedly found that women's pre-birth breastfeeding intentions are good predictor of the actual duration of breastfeeding (Donath, 2003; McLachlan, 2020; Jiang, 2012). The decision to breastfeed or bottle-feed was most often made before pregnancy (Samir, 2000). This is in line with the theoretical reflections of the theory of planned behaviour examined earlier in this literature review to guide the study. According to Dennis (2020), intention plays an important role in determining breastfeeding duration. The theory of planned behavior (TPB) postulates that attitudes,

subjective norm, and perceived behavioral control influence intention to perform a behavior (Ajzen, 1991). According to Ajzen (1991), intention is an indicator of how hard a person is willing to try, or how much effort they are willing to put into performing a behavior. The probability that a person will actually perform a behavior increases as the strength of intention increases (Fishbein, 1975). Therefore, intention is the antecedent of actual behavior (Ajzen, 1986). Intention to breastfeed is influenced by a mother's attitude toward breastfeeding, whether she views it as the normal way to feed an infant, and how much control she feels she has over the breastfeeding experience. The stronger a mother's intention to breastfeed exclusively the more likely she should be to actually breastfeed exclusively.

Against this background, Ogunba (2017) conducted a survey using 200 female students of a Nigerian University, investigating their breastfeeding knowledge and intentions. A wide range of behavioural intentions towards exclusive breastfeeding was expressed by the female students. Ogunba (2017) presented that Women intend to initiate BF between the first 0-6 hour of birth (65%) and breast feed on request (62.5%). However, 61% may not practice EBF because of their jobs, will introduce infant formula or water during the first six months and 38.3% will not breast feed in public. Women intend to terminate BF at 3 months (5.0%), 6 months (16.5%), 1 year (50.5%) and 2 years (28.0%) because of their health status (54.0%). Knowledge about BF was average (94%) and attitude was neutral (77.4%). Also, Ogunba (2017) found that the

women intend to manage EBF during working hours by having fixed feeding schedules (14.0%) and using expressed breast milk (16.0%). About 34.5% of respondents will not use expressed breast milk because of fear of contamination (42.0%) and their health (36.3%), 6.0% expressed the opinion that EBF is not possible (Ogunba, 2017).

Summary of Literature Reviewed

The study focused on the challenges to exclusive breastfeeding completeness among nursing mothers in Ikpoba-Okha Local Government Area. The theory of planned behaviour was used as the theoretical framework for the study. The basic tenets of the TPB upon which this current study rely on is that intentions precedes actual behaviours. It was deduced from the literature that the stronger a mother's intention to breastfeed exclusively the more likely she should be to actually breastfeed exclusively, Research works that validate this claim was objectively reviewed.

A number of challenges have been reported in the literature. The top three breastfeeding challenges reported by a study are: breast milk alone not meeting the nutritional needs of babies, short duration of maternity leave, and socio-cultural pressure to introduce water and artificial feeds. Some other challenges found in the literature are: cracked or sore nipples, breast engorgement, insufficient breast milk production, disapproval and discomfort of breastfeeding in public, insufficient breastfeeding support from society and healthcare providers, short maternity leave periods, difficulties associated with combining breastfeeding and other maternal

responsibilities and emotional stress. A number of variables have also been noted in the literature to predict EBF practice, they are work status, educational status, parity of mothers, and infant and mother age. Also, socio-cultural influence from relatives is key to influencing mothers' successful exclusive breastfeeding.

CHAPTER THREE

METHOD OF THE STUDY

This chapter presents the method and procedures that will be adopted in this study.

They are outlined in the following sub-headings:

- Design of Study
- Population of the Study
- Sample and Sampling Technique
- The Research Instrument
- Validity of the Instrument
- Reliability of the Instrument
- Method of Data collection
- Method of Data Analysis

Design of the study

Descriptive survey research design will be used for the study. This design is considered the most appropriate for this study because it enables generalization to the general study population using a representative sample from the population (Owie, 2017).

Population of the Study

The population of the study will be eight thousand, six hundred and forty one (8,641) nursing mothers attending Primary Health Care centers in Ikpoba-Okha Local Government Area (Edo State Secretariat, 2024).

Sample and sampling Technique

The Sample size will be two hundred and fifteen (215) nursing mothers. This will be drawn using the multi-stage sampling technique which includes purposive sampling techniques and simple random sampling technique with balloting by replacement.

The structured sampling technique was used to select the functional Primary Health Care Centres (PHC) from the population. Hence, fifteen (15) PHC's was selected from thirty (30) PHC's. The functional PHC'S are the ones that offer antenatal services to nursing mothers

Stage 2: The researcher will use simple random sampling techniques to select eight (8) PHC's out of the fifteen (15) that are functional. The Eight (8) PHC's offering specific Child Health Services, such as Immunization, Nutritional services which meets the requirements for the study of the research.

Stage 3: The purposive sampling technique would also be adopted in selecting samples for the study.

The Research Instrument

The instrument to be used for this study is a questionnaire structured by the researcher: Titled; “Nursing Mothers Exclusive Breastfeeding Completeness Questionnaire (NMEBF)”. It will be used to collect data from the respondents, The questionnaire has two sections, A and B. Section A will elicit responses about socio- demographic variables while Section B will elicit responses on Exclusive Breastfeeding status, challenges and current disposition. In Section A and Section B, the Guttman scale of YES and NO will be used.

There are thirty (30) Primary Health care centres in Ikpoba-Okha Local Government Area. The Population is presented below:

Table 1: Total Population of antenatal attendance of Nursing Mothers

S/N	LGA	Faculty Name	Annual Total Anc Attendance
1		UTE PHC	92
2		IWOGBAGENI PHC	230
3		OREGENI PHC	233
4		OGBESON PHC	416
5		AMUFI PHC	22
6		OHOVBE PHC	80
7		EVBUOMODU	192
8		ADUWAWA PHC	60
9		UMELU PHC	46
10		AVBIAMA PHC	132
11		EVBUORIARIA PHC	2826
12		UGBEKUN PHC	132

13		WELFARE PHC	36
14		OKABERE PHC	138
15	IKPOBA- OKHA	OGUA PHC	18
16		EGBA PHC	393
17		IDOGBO PHC	1244
18		UKHIRI OSEMWENDE PHC	21
19		UKHIRI ERESOYEN PHC	163
20		UTEST PHC	57
21		OGHEGHE PHC	887
22		OBAGIE NEVBOSA	49
23		OBE PHC	72
24		OHOGHOBI PHC	452
25		EVBUOBOGUN PHC	276
26		UHIE PHC	7
27		OLOGBO PHC	483
28		OLOGBO NDDC PHC	13
29		AJOKI PHC	0
30		STAFF CLINIC	0

Source: Edo State Secretariat (2024)

Note: The PHC that meet the inclusion criteria.

TABLE 2**Total population of functional antenatal attendance of nursing mothers**

S/N	LGA	FACULTY NAME	ANNUAL TOTAL ANC ATTENDANCE
1	IKPOBA -OKA	OGUA PHC	18
2		OBAGIE PHC	49
3		OREGENI PHC	233
4		UKHIRI ERESOYEN PHC	16
5		UTEST PHC	57
6		OGHEGHE PHC	887
7		IWOGBANENI PHC	230
8		OBE PHC	72
9		UHIE PHC	7
10		OHOGHOBI PHC	452
11		UMELU PHC	46
12		OLOGBO NDDC PHC	13
13		UGBEKUN PHC	132
13		WELFARE PHC	36
14		OLOGBO PHC	483
15		EGBA PHC	393

Table 3: Selected sample

S/N	Facility Name	Annual population	Sample Size 10%
1	UKHIRI ERESOYEN PHC	163	16
2	OGHEGHE PHC	887	89
3	OBAGIE NVEBOSA PHC	49	5
4	OBE PHC	72	7
5	OHOGHOBI PHC	452	45
6	OLOGBO NDDC PHC	13	1
7	OLOGBO PHC	483	48
8	WELFARE	36	4
	TOTAL	2,156	215

Validity of the Instrument

The instrument will be validated by three research experts- The research supervisor and two other experts in the department of Health, Safety and Environmental Education. In addition, it will be presented before the department's postgraduate board. Suggestions and corrections will guide the final draft of the research instrument.

Reliability of the Instrument

A split half method of reliability will be used where the instruments will be pilot tested with 20 respondents in the study population but will not be part of the study sample. The data collected will be coded number 1-20. The odd numbers will be separated from the even. Then the two data will be subjected to Cronbach Alpha statistic in order to ascertain the internal consistency of the instrument.

Method of Data Collection

The researcher with the aid of three research assistant will administer the instrument. At least one of the research assistants must be a health worker.

Method of Data Analysis

Data collected will be analyzed using basic descriptive statistics like frequency count and percentages while Chi-square will be used in testing the formulated hypotheses at 0.05 significant level.

CHAPTER FOUR

PRESENTATION OF RESULTS AND DISCUSSION OF FINDINGS

This chapter presents the findings derived from the analysis of the collected data. The data underwent thorough analysis and discussion aligned with the research questions and formulated hypotheses.

Presentation of Results

Research Question One: What proportion of nursing mothers in Benin metropolis practice Exclusive Breastfeeding?

Table 1: Distribution on proportion of nursing mothers that practice exclusive breastfeeding

		Frequency	Percent
Valid	Yes	92	42.8
	No	123	57.2
	Total	215	100.0

Table 1 shows the distribution of nursing mothers according to their practice of exclusive breastfeeding. Out of the 215 nursing mothers studied, 92 (42.8%) reported practicing exclusive breastfeeding, while 123 (57.2%) did not. This indicates that a greater proportion of the respondents do not adhere to exclusive breastfeeding recommendations compared to those who do. From this result, it can be inferred that exclusive breastfeeding practice is relatively low among the surveyed nursing mothers.

Research question two: What are the challenges to exclusive breastfeeding completeness among nursing mothers in Benin metropolis?

Table 2: Distribution on exclusive breastfeeding completeness

S/N	ITEMS	Agreed Freq.	(%)	Disagreed Freq.	(%)	Mean	SD	Remark
3.	Worry about breast milk alone not meeting the nutritional needs of baby	135	51.6%	80	37.2%	1.6279	.48449	Agreed
4	Short maternity leave period	147	31.6%	68	68.4%	1.6837	.46611	Agreed
5	Sociocultural pressure to introduce water and artificial feeds	128	59.5%	87	40.5%	1.5953	.49197	Agreed
6	Difficulty combining work and breastfeeding	130	60.5%	85	39.5%	1.6047	.49007	Agreed
7	Emotional stress	125	58.1%	90	41.9%	1.5814	.49448	Agreed
8	Lack of support from family, friends and society	131	60.9%	84	39.1%	1.6093	.48905	Agreed
9	Lack of support from healthcare professionals	131	60.9%	84	39.1%	1.6093	.48905	Agreed
10	Low breast milk production	119	55.3%	96	44.7%	1.5535	.49829	Agreed
11	Cracked or sore nipples	131	60.9%	84	39.1%	1.6093	.48905	Agreed
12	Breast engorgement	133	61.9%	83	38.1%	1.6186	.48686	Agreed
13	Shyness when breastfeeding in public	136	63.3%	79	36.7%	1.6326	.48323	Agreed
	Criterion Mean	1.5						
	Cluster Mean-	1.46						

Table 2 presents the challenges to exclusive breastfeeding completeness among nursing mothers in Benin Metropolis. The findings reveal that the majority of the

respondents agreed with all the listed items as barriers to sustaining exclusive breastfeeding. Perceived insufficiency of breast milk: 51.6% of mothers worried that breast milk alone may not meet the baby's nutritional needs. This perception could lead to early supplementation with water or artificial feeds. Short maternity leave: 68.4% agreed that inadequate maternity leave contributes to discontinuation of exclusive breastfeeding, as mothers resume work before the recommended 6-month period. Sociocultural pressures: 59.5% of mothers experienced pressure from relatives and cultural norms to introduce water and artificial feeds, which negatively affects adherence. Work–breastfeeding conflict: 60.5% found it difficult to balance work demands with breastfeeding practices. Emotional stress and lack of support: 58.1% of mothers cited emotional stress, while 60.9% reported lack of support from family, friends, society, and even healthcare professionals as major hindrances. Physiological challenges: More than half of the respondents (55.3%–63.3%) reported physical difficulties such as low milk production, cracked nipples, breast engorgement, and shyness when breastfeeding in public.

The mean scores (ranging from 1.55 to 1.68, all above the criterion mean of 1.5) confirm that all the listed challenges were significantly acknowledged as barriers. The cluster mean of 1.46, being close to the criterion mean, further indicates that these challenges are prevalent and consistent among the mothers. It can be inferred that exclusive breastfeeding completeness among nursing mothers in Benin Metropolis is hindered by a combination of sociocultural, occupational, psychological, and physiological factors. The most prominent challenges include inadequate maternity leave, lack of social and professional support, physical discomforts (such as engorgement and cracked nipples), and cultural beliefs that breast milk alone is insufficient.

Research question 3: What are the perceived solutions to exclusive breastfeeding completeness among nursing mothers in Benin metropolis?

Table 3: Distribution on exclusive breastfeeding completeness among nursing

S/N	ITEMS	Agreed		Disagreed		Mean	SD	Remark
		Freq.	(%)	Freq.	(%)			
14	I know exclusive breastfeeding is good for my child	162	75.3%	53	24.7%	1.7535	.43199	Agreed
15	Exclusive breastfeeding is not feasible	112	52.1	103	47.9	1.5209	.50073	Agreed
16.	I will exclusively breast feed my child but will not exceed 4 months	111	51.6%	104	48.4%	1.5163	.50090	Agreed
17	I will exclusively breastfeed my child but I will give water to support	129	60.0%	86	40.0%	1.6000	.49104	Agreed
18	I don't think I can pass through the stress of exclusive breastfeeding	98	54.4%	117	45.6%	1.4558	.49921	Agreed
19	Exclusive breast feeding makes a woman's breast to fall	112	52.1%	103	47.9%	1.5209	.50073	Agreed
20	I don't think I will be able to exclusively breastfeed my child when I start working/doing business	115	46.5%	100	53.5%	1.5349	.49995	Agreed
	Criterion Mean	1.5						
	Cluster Mean	1.50						

Table 3 presents the perceived solutions to exclusive breastfeeding completeness among nursing mothers in Benin Metropolis. The results reveal that while mothers generally recognize the benefits of exclusive breastfeeding,

their perceptions reflect a mixture of positive acknowledgment and limiting beliefs. A large majority (75.3%) agreed that exclusive breastfeeding is good for the child, showing strong awareness of its health benefits. However, 52.1% of respondents agreed with the statement that exclusive breastfeeding is not feasible, suggesting that despite knowledge, practical barriers exist. About half of the mothers (51.6%) indicated they would exclusively breastfeed but not exceed 4 months, while 60% believed they should give water alongside breast milk, which deviates from WHO/UNICEF recommendations.

Some mothers (54.4%) felt they could not cope with the stress of exclusive breastfeeding, while 52.1% associated the practice with breast sagging, reflecting misconceptions and cultural influences. In addition, 53.5% doubted their ability to continue exclusive breastfeeding once they resumed work or business, pointing to occupational and economic constraints. The mean values (ranging between 1.45 and 1.75, all meeting or exceeding the criterion mean of 1.5) indicate that these perceptions were widely shared. The cluster mean of 1.50 aligns with the criterion mean, showing that mothers' perceptions are divided between acceptance and constraints, with strong awareness but conflicting beliefs.

It can be inferred that exclusive breastfeeding completeness can be achieved through a multi-pronged approach involving supportive policies (extended maternity leave and workplace support), strengthened health systems (counseling and skilled care), community and family involvement (myth-busting and spousal support), and individual empowerment of mothers (stress management, proper breastfeeding techniques, and confidence building).

Hypotheses Testing

The following hypotheses were formulated and tested at 0.05 level of significance.

Hypothesis 1: Educational level of nursing mothers does not significantly influence the challenges to exclusive breastfeeding completeness.

Table 3a: challenges to breastfeeding completeness * high and Low Edu Cross tabulation

		highLowEdu		Total
		Low edu Level	high edu Level	
challenges to breastfeeding completeness	Could not complete exclusive breastfeeding.	124	71	195
	Completed exclusive breastfeeding.	9	11	20
Total		133	82	215

Table 3a shows the cross-tabulation of educational level of nursing mothers and challenges to exclusive breastfeeding completeness. Among those with low education, 124 (out of 133; 93.2%) could not complete exclusive breastfeeding, while only 9 (6.8%) did. Similarly, among those with high education, 71 (86.6%) could not complete exclusive breastfeeding, while 11 (13.4%) were able to do so. Although a slightly higher proportion of highly educated mothers (13.4%) completed exclusive breastfeeding compared to those with lower education (6.8%), the overall difference between the two groups was not statistically significant.

Table 3b: Chi-Square Tests

	Value	df	Sig.
Pearson Chi-Square	2.657 ^a	1	

Table 3b presents the chi-square test of association. The Pearson Chi-square value of 2.657 with a significance level of $p = 0.103$ ($p > 0.05$) indicates that the relationship between educational level and challenges to exclusive breastfeeding completeness is not statistically significant. Fisher's Exact Test ($p = 0.146$) further confirms the lack of significance. From the findings, it can be inferred that educational level of nursing mothers does not significantly influence the challenges they face in completing exclusive breastfeeding.

Hypothesis 2: Occupation of nursing mothers does not significantly influence the challenges to exclusive breastfeeding completeness.

Table 4a: Occupation * challenges to breastfeeding completeness Cross tabulation

			challenges to breastfeeding completeness		Total
			Could not completed exclusive breastfeeding	Completed exclusive breastfeeding	
Work Status	Self employed	Count	89	16	105
		Expected Count	95.2	9.8	105.0
	Gainfully Employed	Count	106	4	110
		Expected Count	99.8	10.2	110.0
Total	Count		195	20	215
	Expected Count		195.0	20.0	215.0

Table 4a presents the cross-tabulation between occupation of nursing mothers and challenges to exclusive breastfeeding completeness. Among self-employed mothers, 89 (84.8%) could not complete exclusive breastfeeding, while 16 (15.2%) did. In contrast, among gainfully employed mothers (e.g.,

those working in formal jobs), 106 (96.4%) could not complete exclusive breastfeeding, while only 4 (3.6%) were able to do so.

This shows that gainfully employed mothers face greater challenges in sustaining exclusive breastfeeding compared to their self-employed counterparts. The flexibility of self-employment may allow mothers more control over their time, thereby creating opportunities to breastfeed, while mothers in formal employment often face rigid work schedules, limited maternity leave, and lack of workplace breastfeeding support.

Table 4b: Chi-Square Tests

	Value	Df	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	8.570 ^a	1		
Fisher's Exact Test			.004	.003
N of Valid Cases	215			

Table 4b (Chi-Square Tests) confirms the statistical significance of this relationship. The Pearson Chi-square value is 8.570 with $p = 0.003$ ($p < 0.05$), indicating a significant association between mothers' occupation and their ability to complete exclusive breastfeeding. Both the Likelihood Ratio ($p = 0.003$) and Fisher's Exact Test ($p = 0.004$) support this conclusion.

The results lead to the rejection of the null hypothesis (H_0) and acceptance of the alternative hypothesis (H_1): Occupation of nursing mothers significantly influences the challenges to exclusive breastfeeding completeness.

It can be inferred that formally employed mothers are more likely to face barriers to exclusive breastfeeding compared to self-employed mothers.

Hypothesis 3: Parity does not significantly influence the challenges to exclusive breastfeeding completeness

Table 5a: Parity * challenges to breastfeeding completeness Cross tabulation

			challenges to breastfeeding completeness		Total
			Could not completed exclusive breastfeeding	Completed exclusive breastfeeding	
Parity	1-2	Count	84	7	91
		Expected Count	82.5	8.5	91.0
	3-4	Count	111	13	124
		Expected Count	112.5	11.5	124.0
Total		Count	195	20	215
		Expected Count	195.0	20.0	215.0

Table 5a presents the cross-tabulation of parity and challenges to exclusive breastfeeding completeness. Among mothers with 1–2 children, 84 (92.3%) could not complete exclusive breastfeeding, while 7 (7.7%) did. Similarly, among mothers with 3–4 children, 111 (89.5%) could not complete exclusive breastfeeding, while 13 (10.5%) did. The percentages suggest a slightly higher proportion of mothers with 3–4 children were able to complete exclusive breastfeeding compared to those with 1–2 children. However, this difference is very small.

Table 5b: Chi-Square Tests

	Value	Df	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.485 ^a	1		
Fisher's Exact Test			.636	.327
N of Valid Cases	215			

Table 5b provides the Chi-Square test results. The Pearson Chi-Square value is 0.485 with $p = 0.486$ ($p > 0.05$), which indicates that the association between parity and challenges to exclusive breastfeeding completeness is not statistically significant. The Fisher's Exact Test ($p = 0.636$) also supports this submission.

From the results, it can be inferred that parity does not significantly influence the challenges nursing mothers face in completing exclusive breastfeeding.

Discussion of Findings

The study was designed to assess the challenges to exclusive breastfeeding completeness in Benin metropolis. Data was collected and analysed using SPSS version 21. The discussion is based on the findings from the research questions and hypotheses.

The result from the study revealed a greater proportion of the respondents do not adhere to exclusive breastfeeding completion compared to those who do. Out of the 215 nursing mothers studied, 92 (42.8%) reported practicing exclusive breastfeeding, while 123 (57.2%) did not. From this result, it can be inferred that exclusive breastfeeding practice is relatively

low among nursing mothers in Benin Metropolis. The finding from this study agrees with several studies in Nigeria and other developing countries for instance, Nigeria Demographic and Health Survey (NDHS, 2018) reported that only about 29% of infants under six months were exclusively breastfed, far below the WHO global target of at least 50% (WHO, 2020). Similarly, Akinremi et al. (2019) and Ezeh et al. (2017) observed that although awareness of the benefits of EBF was relatively high, adherence was low due to sociocultural pressures, maternal employment demands, and perceptions of breast milk insufficiency. However, the finding contrasts with some studies conducted in more structured or supportive environments where higher adherence was recorded. For example, Onah et al. (2014) reported higher exclusive breastfeeding rates among mothers who had strong family support and workplace flexibility. Therefore, the relatively low adherence found in Benin Metropolis is not an isolated occurrence but rather reflects a national and regional trend of suboptimal exclusive breastfeeding practices.

The study further revealed that exclusive breastfeeding completeness among nursing mothers in Benin Metropolis is hindered by a combination of sociocultural, occupational, psychological, and physiological factors. The most prominent challenges include inadequate maternity leave, lack of social and professional support, physical discomforts (such as engorgement and cracked nipples), and cultural beliefs that breast milk alone is insufficient.

The finding is consistent with the study of Ogunlesi (2010) and Ezeh et al. (2017) who highlighted that cultural beliefs, particularly the perception that breast milk alone is insufficient, significantly undermine exclusive breastfeeding in Nigerian communities. Similarly, Agho et al. (2011) found

that sociocultural pressure to introduce water and herbal concoctions early is a common barrier to EBF in sub-Saharan Africa. The Nigeria Demographic and Health Survey (NDHS, 2018) reported that many working mothers struggle to sustain EBF due to short maternity leave and unsupportive workplace policies. This agrees with Oni et al. (2014), who argued that gainfully employed mothers are more likely to discontinue EBF compared to self-employed women because of rigid work schedules and lack of crèche facilities. In agreement with existing literature, this present study confirms that exclusive breastfeeding is not hindered by a single factor but by an interplay of cultural, occupational, psychological, and physiological barriers.

The findings from the study revealed that exclusive breastfeeding completeness can be achieved through a multi-pronged approach involving supportive policies (extended maternity leave and workplace support), strengthened health systems (counseling and skilled care), community and family involvement (myth-busting and spousal support), and individual empowerment of mothers (stress management, proper breastfeeding techniques, and confidence building). This findings is in consonance with the study of World Health Organization (WHO, 2020) and UNICEF (2019) who emphasize that extending paid maternity leave and implementing breastfeeding-friendly workplace policies significantly improve EBF rates.

From the findings, it can be inferred that educational level of nursing mothers does not significantly influence the challenges they face in completing exclusive breastfeeding. This reveals that barriers to exclusive breastfeeding are universal across educational backgrounds, affecting both highly educated and less educated mothers. Factors such as short maternity

leave, sociocultural pressures, workplace demands, and physical/psychological difficulties may be stronger determinants of breastfeeding challenges than educational attainment. This result counters the study of Adejoke et al. (2020) with the traditional assumption that higher education automatically equips mothers to overcome complex health barriers. Instead, this data suggest that factors external to the mother's education are universal and powerful enough to negate any educational advantage.

The findings from this study also revealed that formally employed mothers are more likely to face barriers to exclusive breastfeeding compared to self-employed mothers. This disparity is primarily attributed to institutional and infrastructural inflexibility in the formal sector. Formally employed mothers are strictly bound by fixed, non-negotiable working hours and limited, statutory maternity leave policies (e.g., the 12-week minimum in Nigeria), which often force an early return to work and immediate separation from the infant. This structural constraint severely limits the opportunity for timely and on-demand breastfeeding. Studies have consistently shown that the inability to combine work and breastfeeding is the single greatest determinant of early cessation among formally employed women such as the study by Ogbuanu et al., 2021. Conversely, self-employed mothers often retain the flexibility to set their own hours, work closer to home, or bring their infants to the workplace, allowing them to better manage feeding demands. Research by Mogale et al. (2019) underscores this, highlighting that occupational autonomy is a key protective factor against EBF discontinuity.

From the results, it can be inferred that parity does not significantly influence the challenges nursing mothers face in completing exclusive breastfeeding. This implies that whether a mother has fewer children (1–2) or more children

(3–4), the difficulties associated with exclusive breastfeeding remain largely the same. In other words, challenges such as short maternity leave, sociocultural pressures, physical discomfort, and lack of support are universal across mothers of different parities. This result challenges the traditional hypothesis found in some earlier literature, which often suggested that multiparous women (those with more children) would experience fewer challenges due to accumulated knowledge, confidence, and prior experience (e.g., studies by Odoms-Young, A. M., et al. (2018)). My data indicate that while experience may provide some psychological benefit, it is insufficient to overcome external and structural difficulties. Crucially, this finding strongly supports the growing body of research (Davies, et al. ,2020) that emphasizes the universal nature of structural barriers to EBF success. Whether a mother is primiparous (first child) or multiparous, the core difficulties remain the same: short, fixed statutory maternity leave, inflexible workplace environments, and pervasive socio-cultural pressure to introduce formula or water. These policy and societal constraints act as equalizers, meaning that the practical difficulty of maintaining EBF is the same for a mother returning to work for her first child as it is for a mother returning for her fourth child.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary, conclusion and recommendations from the study.

Summary

The study investigated the challenges to exclusive breastfeeding completeness among nursing mothers in Benin metropolis. To guide and narrow the focus of the study, six research questions were raised, and three null hypotheses were formulated and tested at a 0.05 significance level. A thorough review of pertinent literature was conducted to gain a deeper understanding of the concepts. Descriptive survey research design was used for the study, and a sample of 215 respondents was drawn from a population of 8,641 nursing mothers attending Primary Health Care centers. A questionnaire structured by the researcher and validated by three expert were used for the study. The reliability of the instrument was established using the split half method and subjected to Cronbach Alpha statistic in order to ascertain the internal consistency of the instrument, which yielded a consistency of 0.78. Which indicate that the instrument is reliable. The researcher with the aid of three research assistant administered the instrument. Data collected were analyzed using descriptive statistics like frequency count, percentages, mean and standard deviation while Chi-square were used in testing the formulated hypotheses at 0.05 significant level. The data analysis produced the findings presented below.

Findings

1. Greater proportion of the respondents do not adhere to exclusive breastfeeding completion compared to those who do. Out of the 215 nursing mothers studied, 92(42.8%) reported practicing exclusive breastfeeding, while 123(57.2%) did not.
2. Exclusive breastfeeding completeness among nursing mothers in Benin Metropolis is hindered by a combination of sociocultural, occupational, psychological, and physiological factors.
3. The findings from the study revealed that exclusive breastfeeding completeness can be achieved through a multi-pronged approach involving supportive policies (extended maternity leave and workplace support), strengthened health systems (counseling and skilled care), community and family involvement (myth-busting and spousal support), and individual empowerment of mothers (stress management, proper breastfeeding techniques, and confidence building).
4. Educational level of nursing mothers does not significantly influence the challenges they face in completing exclusive breastfeeding.
5. Formally/gainfully employed mothers are more likely to face barriers to exclusive breastfeeding compared to self-employed mothers.
6. Parity does not significantly influence the challenges nursing mothers face in completing exclusive breastfeeding.

Conclusion

This study on Exclusive Breastfeeding (EBF) in the Benin metropolis clearly reveals that EBF completion is primarily constrained by systemic and occupational factors, rather than maternal knowledge or experience. A significant majority of mothers failed to complete EBF, indicating that the

prevailing environment is not conducive to optimal infant feeding. The key contribution of this research is identifying the universal and dominant nature of structural barriers. Workplace Conflict as the Core Determinant: The most significant finding is the conflict faced by formally employed mothers, who are more likely to face barriers than their self-employed counterparts. This highlights that inflexible work demands and short statutory maternity leave are the single greatest obstacles, creating an environment where EBF is practically unsustainable for the working mother. Education and Parity are Neutralized: The finding that educational level and parity (number of children) do not significantly influence the challenges demonstrates that structural problems act as equalizers. A mother's prior experience or academic knowledge is rendered insufficient against the institutional failure to provide necessary time, space, and support. Path Forward Requires Systemic Policy Shift: While the challenges are multifaceted (sociocultural, psychological, etc.), the solutions identified by mothers overwhelmingly point toward systemic intervention. Achieving high rates of EBF completion requires shifting the burden from the individual mother to the society and the state. This necessitates mandatory extended paid maternity leave, enforceable workplace support, and robust community/spousal engagement to combat harmful myths and provide sustained practical assistance.

Recommendations

1. The non-adherence rate highlights a gap between recommended infant feeding practices and actual behavior in the community. This suggests the need for targeted health education programs, improved maternal support systems, and community sensitization to promote the adoption of exclusive breastfeeding, thereby improving infant health outcomes.

2. The results from research question two suggest that interventions to improve exclusive breastfeeding rates should not only focus on educating mothers but also address systemic barriers such as extending maternity leave policies, promoting workplace breastfeeding-friendly environments, providing continuous healthcare support, and engaging families and communities in breastfeeding advocacy.
3. Based on the finding from research question three the researcher recommend that interventions should go beyond awareness creation to correct misconceptions, provide emotional and social support, extend maternity leave, and promote workplace breastfeeding policies. Addressing cultural myths (e.g., giving water and breast sagging) and reducing perceived stress through counseling and community engagement could strengthen mothers' confidence and enhance exclusive breastfeeding completeness.
4. The researcher recommend that, interventions should aimed at improving exclusive breastfeeding not only target less-educated mothers but should cut across all educational levels, focusing on structural supports, cultural reorientation, and workplace breastfeeding-friendly policies.
5. Based on the finding the researcher recommend that workplace interventions such as: Extension of paid maternity leave, Provision of workplace crèches, Flexible work schedules, Creation of breastfeeding-friendly policies in formal organizations should be encouraged.

6. Interventions aimed at improving exclusive breastfeeding should target all mothers regardless of their parity, focusing instead on broader structural, cultural, and workplace barriers.

References

- Adewuyi, E.O. & Adefemi, K. (2016). Breastfeeding in Nigeria: A systematic review. *Int J Community Med Public Health*, 3: 385-96
- Agho, K.E., Dibley, M.J., Odiase, J.I., & Ogbonmwan, S.M. (2016). Determinants of exclusive breastfeeding in Nigeria. *BMC Pregnancy Childbirth*.11, 1-2.
- Agostoni, C., Decsi, T., Fewtrell, M., Goulet, O., Kolacek, S., Koletzko, B., Michaelsen, K.F., Moreno, L., Puntis, J., Rigo, J. (2008). Complementary feeding: a commentary by the ESPGHAN committee on nutrition. *J Pediatr Gastroenterol Nutr.* ;46(1):99-110.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Al-Binali, A. M. (2012). Breastfeeding knowledge, attitude, and practice among school teachers in Abha female educational district, southwestern Saudi Arabia. *International Breastfeeding Journal*, 7(1), 10-15. doi: 10.1186/1746- 4358-7-10
- Andrew, N, & Harvey, K. (2020). Infant feeding choices: experience, self-identity and lifestyle. *Matern Child Nutr.* 7:48-60.
- Aniekan, A., Etiobong, E., Eno, N., & Ukeme, F. (2017). Knowledge and practice of exclusive breastfeeding among antenatal attendees in Uyo, Southern Nigeria. *Giaziantep Med J.* 20: 130-135
- Aryeetey, R.N.O., & Goh, Y.E. (2013). Duration of exclusive breastfeeding and subsequent child feeding adequacy. *Ghana Med J.* 2013:47:24-29.
- Asemahagn, M.A. (2020) Determinants of exclusive breastfeeding practices among mothers in azezo district, northwest Ethiopia. *Int Breastfeed J.* 2016;11-22.
- Avery, A., Zimmermann, K., Underwood, P.W., & Magnus, J.H. (2019). Confident commitment is a key factor for sustained breastfeeding. *Birth.* 36:141-148.

- Bai, Y. K., Wunderlich, S., & Fly, A. (2016). Predicting intentions to continue exclusive breastfeeding for 6 months: A comparison among racial/ethnic groups. *Maternal & Child Health Journal*, 15(8), 1257-1264. doi:10.1007/s10995-010
- Ball, T., & Bennett, D. (2016). The economic impact of breastfeeding. *Pediatric Clinics of North America*, 48(1), 253-262.
- Balogun, M.R., Okpalugo, O.A., Ogunyemi, A.O., & Sekoni, A.O. (2018). Knowledge, attitude and practice of breastfeeding: A comparative study of mothers in Urban and rural communities of Lagos, Southwest Nigeria. *Nigerian Medical Journal*. 58(4): 123-130
- Bhutta, Z.A., & Labbok, M. (2019). Scaling up breastfeeding in developing countries. *Lancet*. 378:378-80.
- Biadgilign, S., et al. (2018). Factors associated with exclusive breastfeeding practices among mothers in Bale Goba district, South-East Ethiopia: A cross-sectional study. *International Breastfeeding Journal*, 7, Article 17. <https://doi.org/10.1186/1746-4358-7-17>
- Black, R.E., Victora, C.G., Walker, S.P., & Bhutta, Z.A., (2013). Christian P, De Onis M, Ezzati M, Grantham-McGregor S, Katz J, Martorell R. Maternal and child undernutrition and overweight in low-income and middle-income countries. *Lancet*, 382(9890):427-51.
- Boyer, K. (2017). Affect, corporeality and the limits of belonging: Breastfeeding in public in the contemporary UK. *Health Place*. 18:552-60.
- Brand, E., Kothari, C., & Stark, M.A. (2017). Factors related to breastfeeding discontinuation between hospital discharge and 2 weeks postpartum. *J Perinat Educ*. 20(1):36-44.
- British Dietetic Association. (2013). Complementary feeding: introduction of solid food to an infant's diet. Policy statement Birmingham. United Kingdom: The British Dietetic Association.

- Chalmers B, Levitt C, Heaman M, O'Brien B, Sauve R, Kaczorowski J. (2009). Breastfeeding rates and hospital breastfeeding practices in Canada: a national survey of women. *Birth*, 36:122-32.
- Chineke, H. N., Iwu, A. C., Diwe, K. C., Duru, C. B., Uwakwe, K. A., Emmanuel, E. E., Oluoha, U. R., Madubueze, U. C., Ndukwu, E. U., & Ohale, I. (2017). The practice of exclusive breastfeeding and its sociodemographic determinants amongst nursing mothers at a tertiary health care institution in South East, Nigeria. *Open Journal of Preventive Medicine*, 7(4), 63-73. <https://doi.org/10.4236/ojpm.2017.74006>
- Datta, J., Graham, B., & Wellings, K. (2012). 2012f fathers in breastfeeding decision-making and support. *Br J Midwifery*. 2012:20:159-67.
- Declercq, E. R., Sakala, C., Corry, M. P., & Applebaum, S. (2017). *Listening to Mothers II: Report of the second national U.S. survey of women's childbearing experiences*. *Journal of Perinatal Education*, 16(4), 9–14. <https://doi.org/10.1624/105812407X244769>.
- Dennis, C. E. (2020). Identifying predictors of breastfeeding self-efficacy in the immediate postpartum period. *Research in Nursing & Health*, 29(4), 256- 268.
- Dewey, K.G. (2012). Maternal and fetal stress are associated with impaired lactogenesis in humans. *J Nutr*. 2001; 131:30128-5.
- Diji, A. K., Bam, V., Asante, E., Lomotey, A.Y., Samuel Yeboah, S., & Haim Acquah Owusu, H. A. (2020). Challenges and predictors of exclusive breastfeeding among mothers attending the child welfare clinic at a regional hospital in Ghana: a descriptive cross-sectional study. *International Breastfeeding Journal*, 12:13 DOI: 10.1186/s13006-017-0104-2
- Donath, S. & Amir, L.H. (2003). Relationship between prenatal infant feeding intention and initiation and duration of breastfeeding: a cohort study. *Acta Paediatrica*. 2003; 92(3):352-356.

- Edmond, K. M., Zandoh, C., Quigley, M. A., Amenga-Etego, S., Owusu-Agyei, S., & Kirkwood, B. R. (2021). Delayed breastfeeding initiation increases risk of neonatal mortality. *Pediatrics*, 117(3), e380–e386. <https://doi.org/10.1542/peds.2005-1496>.
- Escuder, M. M. L., Venancio, S. I., Saldiva, S. R. D. M., & Mondini, L., Levy, R. B. (2008). Early interruption of exclusive breastfeeding and associated factors, State of São Paulo, Brazil. *Journal of Human Lactation*, 24(2), 168-174. <https://doi.org/10.1177/0890334408316073>
- Fewtrell, M., Wilson, D.C., Booth, I., & Lucas, A. (2011). Six months of exclusive breast feeding: how good is the evidence? *BMJ*. 2011; 342:c5955.
- Field, C.J. (2018). The immunological components of human milk and their effect on immune development in Infants1, 2. *J Nutr.*; 135(1):1-14.
- Giles, M., Connor, S., & MacAskill, S. (2015). Attitudes to breastfeeding among adolescents. *Journal of Human Nutrition and Dietetics*, 23(3).
- Gladzah, N. (2013). Challenges of exclusive breastfeeding among female health workers in two hospitals in Accra. 2013. <http://ugspace.ug.edu.gh/handle/123456789/5863>. Accessed 18 Mar 2021.
- Godfrey, J., & Lawrence, R. (2019). Toward optimal health: the maternal benefits of breastfeeding...Ruth A. Lawrence, M.D. *Journal of Women's Health*, 19(9), 1597-1602. doi:10.1089/jwh.2010.2290
- Goosen, C., McLachlan, M., & Schübl, C. (2019). Infant feeding practices during the first 6 months of life in a low-income area of the Western Cape Province. *South African J Child Health*. 8:50-4.
- Guendelman, S., Kosa, J.L., Pear, M., Graham, S., Goodman, J., & Kharrazi, M. (2009). Juggling work and breastfeeding: effects of maternity leave and occupational characteristics. *Pediatrics*. 123:e38-46.

- Horta, B.L., & Victora, C.G. (2019). Short-term effects of breastfeeding: A systematic review on the benefits of breastfeeding on diarrhoea and pneumonia mortality. Geneva: The World Health Organization; 2013.
- Jedrychowski, W., Perera, F., Jankowski, J., Butscher, M., Mroz, E., Flak, E., Kaim, I., Lisowską-Miszczuk, I., Skarupa, A., & Sowa, A. (2012) Effect of exclusive breastfeeding on the development of children's cognitive function in the Krakow prospective birth cohort study. *Eur J Pediatr.* ;171:151-8.
- Jiang, H., Li, M., Yang, D., Wen, L.M., Hunter, C., He, G. & Qian, X. (2012). Awareness, Intention, and Needs Regarding Breastfeeding: Findings from First-Time Mothers in Shanghai, China *Breast feed Med.* 7(6):526-34.
- Kaufman, L., Deenadayalan, S., & Karpati, A. (2010). Breastfeeding ambivalence among low-income African American and Puerto Rican women in north and central Brooklyn. *Matern Child Health J.* 14:696-704.
- Khan, M. N., & Islam, M. M. (2017). Effect of exclusive breastfeeding on selected adverse health and nutritional outcomes: A nationally representative study. *BMC Public Health*, 17(1), Article 889. <https://doi.org/10.1186/s12889-017-4913-4>
- Kloeblen-Tarver, A. S. & Pichert, J. W., (2020). Intent to breast-feed: The impact of attitudes, norms, parity and experience. *American Journal of Health Behavior*, 26(3).
- Koosha, A., Hashemifesharaki, R., & Mousavinasab, N. (2023). Breast-feeding patterns and factors determining exclusive breast-feeding. *Singapore Med J.* 49: 1002-6.
- Kramer, M., & Kakuma, R. (2018). Optimal duration of exclusive breastfeeding (review). *Cochrane Database Syst Rev.* 2002;1:11-2.
- Kramer, M., & Kakuma, R. (2012). Optimal duration of exclusive breastfeeding. *Cochrane Database of doi:10.1002/14651858.CD003517 Systematic Reviews*, 8.

- Ku, C., & Chow, S. (2015). Factors influencing the practice of exclusive breastfeeding among Hong Kong Chinese women: A questionnaire survey. *Journal of Clinical Nursing*, 19(17/18), 2434-2445)
- Labbok, M. H., & Krasovec, K. (1990). Toward consistency in breastfeeding definitions. *Studies in Family Planning*, 21(4), 226-230. <https://doi.org/10.2307/1966617>
- Lamberti, L.M., Walker, C.L.F., Noiman, A., Victora, C., & Black, R.E. (2011). Breastfeeding and the risk for diarrhea morbidity and mortality, *BMC Public Health*. 11(3):1.
- Lawton, R., Ashley, L., Dawson, S., Waiblinger, D., & Conner, M. (2012). Employing an extended Theory of Planned Behaviour to predict breastfeeding intention, initiation, and maintenance in White British and South-Asian mothers living in Bradford. *British Journal of Health Psychology*, 17(4), 854-871. doi:10.1111/j.2044-8287.2012.02083.x
- Ludlow, V., Newhook, L.A., Newhook, J.T., Bonia, K, Goodridge, JM, & Twells L. (2021). How formula feeding mothers balance risks and define themselves as "good mothers." *Health Risk Soc.* 2012;14:291-306.
- Ma, P., & Brewer-Asling, M. (2020). A case study on the economic impact of optimal breastfeeding. *Maternal and Child Health Journal*, (7(1), 9-13. doi: 10.1007/s10995-011-0942-2
- Maonga, A.R., Mahande, M.J., Damian, D.J., & Msuya, S.E. (2016). Factors affecting exclusive breastfeeding among women in Muheza District Tanga
- McLachlan, H.L., & Lumley, J. (2020). Factors associated with breastfeeding at six months postpartum in a group of Australian women. *International Breastfeeding Journal*. 1:18. doi:10.1186/1746-4358-1-18.
- Mitra, A. K., Khoury, A. J., Carothers, C., & Foretich, C. (2019). The Loving Support Breastfeeding Campaign: Awareness and Practices of Health Care Providers in

- Mississippi. *JOGNN - Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 32(6), 753-760.
- Nigeria Demographic and Health Survey (NDHS). (2013). *Nigeria Demographic and Health Survey 2013* (Final report). National Population Commission (NPC) & ICF International. <https://dhsprogram.com/pubs/pdf/fr293/fr293.pdf>.
- Nommsen-Rivers, L. A., Chantry, C. J., Pearson, J. M., Cohen, R. J., & Dewey, K. G. (2012). Delayed onset of lactogenesis among first-time mothers is related to maternal obesity and factors associated with ineffective breastfeeding. *The American Journal of Clinical Nutrition*, 92(3), 574–584. <https://doi.org/10.3945/ajcn.2010.29192>.
- Ogunba, B. O. (2017). Effect of maternal employment on infant feeding practices in Southwestern Nigeria. *Food and Nutrition Sciences*, 6(5), 597-604. <https://doi.org/10.4236/fns.2015.67063>
- Osinusi, K. (1987). A study of the pattern of breast feeding in Ibadan, Nigeria. *Journal of Tropical Medicine and Hygiene*, 90(6), 325–327.
- Perez-Escamilla R. (2022). Factors associated with exclusive breastfeeding in Accra, Ghana. *Eur J Clin Nutr*. 2005; 59: 789-96.
- Perrine, C. G., Scanlon, K. S., Li, R., Odom, E. C., & Grummer-Strawn, L. (2012). Baby-Friendly Hospital Practices and Meeting Exclusive Breastfeeding Intention. *Pediatrics*, 130(1), 54-60. <https://doi.org/10.1542/peds.2011-3633>
- Piñeiro-Albero, R. M., Ramos-Pichardo, J. D., Oliver-Roig, A., Velandrino-Nicolás, A., Richart-Martínez, M., García-de-León-González, R., & Wells, K. J. (2013). The Spanish version of the Prenatal Breast-feeding Self-efficacy Scale: Reliability and validity assessment. *International Journal of Nursing Studies*, 50(10), 1385-1390. <https://doi.org/10.1016/j.ijnurstu.2012.12.010>
- Qureshi, A. M., Oche, O. M., Sadiq, U. A., & Kabiru, S. (2019). Using community volunteers to promote exclusive breastfeeding in Sokoto State, Nigeria. *Pan*

- Rahman, M. A., Khan, M. N., Akter, S., Rahman, A., Alam, M. M., Khan, M. A., & Mostafizur Rahman. (2020). Determinants of exclusive breastfeeding practice in Bangladesh: Evidence from nationally representative survey data. *PLoS ONE*, 15(7), e0236080. <https://doi.org/10.1371/journal.pone.0236080>.
- Redshaw, M., & Henderson, J. (2018). Learning the hard way: Expectations and experiences of infant-feeding support. *Birth*, 39(1), 21–29. <https://doi.org/10.1111/j.1523-536X.2011.00509.x>.
- Reilly, J. J., & Wells, J. C. K. (2020). Duration of exclusive breast-feeding: introduction of complementary feeding may be necessary before 6 months of age. *British Journal of Nutrition*, 94(6), 869-872. <https://doi.org/10.1079/BJN20051601>
- Rempel, L. A., & Rempel, J. K. (2021). The role of the father in breastfeeding. *Journal of Human Lactation*, 27(1).
- Stevens, G.J., Issaka, A.1., Agho, K.E., Page, A.N., Burns, P., & Dibley, M.J. (2014). Determinants of early introduction of solid, semi-solid or soft foods among infants aged 3-5 months in four Anglophone West African countries. *Nutrients*. 6: 2602-18.
- Stuebe, A. M., & Schwarz, E. B. (2021). The risks and benefits of infant feeding practices for women and their children. *Journal of Perinatology*, 30(3), 155–162. <https://doi.org/10.1038/jp.2009.107>
- Tan, K. L. (2011). Factors associated with exclusive breastfeeding among infants under six months of age in Peninsular Malaysia. *International Breastfeeding Journal*, 6, Article 2. <https://doi.org/10.1186/1746-4358-6-2>
- Thome, M., Alder, E. M., & Ramel, A. (2006). A population-based study of exclusive breastfeeding in Icelandic women: Is there a relationship with depressive

- symptoms and parenting stress? *International Journal of Nursing Studies*, 43(1), 11-20.
- U.S. Breastfeeding Committee. (2014). *Annual report 2014*. U.S. Breastfeeding Committee. Retrieved from <https://www.usbreastfeeding.org/annual-reports>
- Ugboaja, J. O., Berthrand, N. O., Igwegbe, A. O., & Obi-Nwosu, A. L. (2013). Barriers to postnatal care and exclusive breastfeeding among urban women in southeastern Nigeria. *Nigerian Medical Journal*, 54(1), 45–50. <https://doi.org/10.4103/0300-1652.108895>.
- United Nations Human Rights Office of the High Commissioner. (2016, November 22). *UN human rights experts urge countries to increase efforts to protect, promote and support breastfeeding, and end inappropriate marketing of breast-milk substitutes* [Joint statement by Special Rapporteurs and UN human rights bodies]. <https://www.who.int/news/item/22-11-2016-un-human-rights-experts-urge-countries-to-increase-efforts-to-protect-promote-and-support-breastfeeding-and-end-inappropriate-marketing-of-breast-milk-substitutes>
- United Nations Office of the High Commissioner for Human Rights (OHCHR). (2016, November 22). *Breastfeeding: human rights experts urge countries to protect, promote and support breastfeeding and end inappropriate marketing of breast-milk substitutes* [News release]. <https://www.ohchr.org/en/2016/11/breastfeeding-matter-human-rights-say-un-experts-urging-action-formula-milk>.
- Wilhelm, S. L., Rodehorst, T. K., Stepan, M. B., Hertzog, M., & Berens, C. (2015). Influence of intention and self-efficacy levels on duration of breastfeeding for Midwest rural mothers. *Applied Nursing Research*, 21(3), 123-130.
- World Health Organization (WHO, 2023). Exclusive Breastfeeding for Optimal Growth, Development and Health of Infants. <https://www.who.int/tools/elena/interventions/exclusive-breastfeeding>

- World Health Organization, United Nations Children's Fund, & International Baby Food Action Network (IBFAN). (2016). *Marketing of breast-milk substitutes: National implementation of the International Code — Status report 2016*. World Health Organization. <https://www.who.int/publications/i/item/9789241565325>.
- World Health Organization. (2016). Guideline: updates on HIV and infant feeding — the duration of breastfeeding, and support from health services to improve feeding practices among mothers living with HIV. World Health Organization. ISBN 978-92-4-154970-7. <https://doi.org/10.2471/BLT.16.171247>
- World Health Organization. (2019). *Global nutrition targets 2025: Breastfeeding policy brief* (WHO/NMH/NHD/14.7). World Health Organization. <https://www.who.int/publications/i/item/WHO-NMH-NHD-14.7>.
- World Health Organization; UNICEF (2023). Infant and Young Child Feeding (Fact Sheet). <https://www.who.int/news-room.fact-sheets/detail/infant-and-young-child-feeding>
- Yatich, N. (2019). Patterns and determinants of breastfeeding and complementary feeding practices in urban informal settlements, Nairobi Kenya. BMC Public Health. 11:396.

APPENDIX I
DEPARTMENT OF HEALTH, SAFETY AND ENVIRONMENTAL
EDUCATION, FACULTY OF EDUCATION, UNIVERSITY OF BENIN,
BENIN CITY
NURSING MOTHERS EXCLUSIVE BREASTFEEDING QUESTIONNAIRE
(NMEBF)

Dear Mothers,

Thank you sincerely for accepting to participate in this study. The purpose of this study is purely academic and in order to advocate for better ways of infant nutrition and improve infant wellbeing. Therefore, be as honest and candid as possible in responding to this questionnaire as your identity will be treated with utmost anonymity.

Thank you

Researcher

SECTION A- DEMOGRAPHIC INFORMATION

This section requires your response of Yes and No where appropriate.

1. Mothers' Age

Below 20 years	Yes / No
20-29 years	Yes / No
30-49 years	Yes / No
50-59 years	Yes / No
60 and above years	Yes / No

2. Baby's age

Below 6 months Yes / No

Below 12 months Yes / No

3. Child Position

First child Yes / No

Second to forth Yes / No

4. Work status

Gainfully employed Yes / No

Self-employed Yes / No

5. Mode of delivery

Virginal Yes / No

CS Yes / No

6. Educational qualification

Informal education Yes / No

Primary school certificate Yes / No

Secondary school certificate Yes / No

Tertiary Yes / No

Advance Yes / No

7. Religion

Christian Yes / No

Muslim Yes / No

Other faith Yes / No

SECTION B-

1. Have you started giving water to the baby

Yes []

No []

2. Having started giving any other food to the baby other than breast milk?

Yes []

No []

3. Did you exclusively breastfeed previous child (ren)

Yes []

No []

If yes please indicate for how long _____

Which of the following did you consider as a challenge to exclusively breast feeding your child?

S/N	Items	Yes	No
4	Worry about breast milk alone not meeting the nutritional needs of baby		
5	Short maternity leave period		
6	Sociocultural pressure to introduce water and artificial feeds		
7	Difficulty combining work and breastfeeding		
8	Emotional stress		
9	Lack of support from family, friends and society		
10	Lack of support from healthcare professionals		
11	Low breast milk production		
12	Cracked or sore nipples		
13	Breast engorgement		
14	Shyness when breastfeeding in public		

Indicate any other challenges you may have to exclusively breast feeding this your baby

Indicate the solutions to exclusive breastfeeding completeness

Current Disposition towards Exclusive Breastfeeding

S/N	Items	Yes	No
15	I know exclusive breastfeeding is good for my child		
16	Exclusive breastfeeding is not feasible		
17	I will exclusively breast feed my child but will not exceed 4 months		
18	I will exclusively breastfeed my child but I will give water to support		
19	I don't think I can pass through the stress of exclusive breastfeeding		
20	Exclusive breast feeding makes a woman's breast to fall		
21	I don't think I will be able to exclusively breastfeed my child when I start working/doin. g business		