AN ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE OF EXCLUSIVE BREASTFEEDING AMONG WOMEN IN KADUNA METROPOLIS

BY

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A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, AHMADU BELLO UNIVERSITY, ZARIAIN PARTIAL FULFILLMENT OF THE REQIIREMENTS FOR THE AWARD OF MASTER DEGREE IN SOCIOLOGY

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DECLARATION

I declare that this dissertation entitled: "**An Assessment of Knowledge, Attitude and Practice of Exclusive Breastfeeding among Women in Kaduna Metropolis**" has been carried out by me in the Department of Sociology. It was done under the supervision of Dr. (Mrs.) E. C. Akpa and Prof. J. E Gyong. This work has not been submitted in any form for another degree at other institution.Information derived from the published and unpublished works of others has been duly acknowledged.

_____ _____

Jonathan Grace Wona Date

CERTIFICATION

This dissertation entitled: "**An Assessmentof Knowledge, Attitude and Practice of Exclusive Breastfeeding among Women in Kaduna Metropolis**" by Jonathan Grace Wona meets the regulations governing the award of the Degree, of M.Sc. Sociology of Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This dissertation is dedicatedto God Almighty for His guidance, protection and provision, he is truly a great God. This dissertation is also dedicated to my loving mother,Mrs. Victoria Jonathan,for her endless prayers and support, she is truly a rare gem. I also,dedicate this work tomy late father, Mr. Jonathan Musa who has taught me to be disciplined,strong and courageous.

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ABSTRACT

Inappropriate feeding practices can have profound consequences on the growth, development and survival of infants. The World Health Organizationrecommended exclusive breastfeeding because it has been shown to reduce the occurrence of adverse health outcomes on the infant and mother, and so isregarded as the best form of preventive medicine. Despite the health and economic benefits associated with exclusive breastfeeding, the practicestill remains low in various parts of the world. In Nigeria, the practice rate remains low with just 17-25% of infants, exclusively breastfed. This justified the objective of assessing women's knowledge, attitude andpractice of exclusive breastfeeding in Kaduna metropolis. It also justified the need to investigate factors affectingthe non-practice of exclusive breastfeeding. The study also verified the hypothesis raised with regards to the relationship between the knowledgeand attitude towards exclusive breastfeeding, respondents'knowledge and practice of exclusive breastfeeding and therelationship between the attitudeand practice of exclusive breastfeeding. The social cognitive theory was adopted as the theoretical framework of the study. The study used the survey research design where both probability and non-probability sampling techniques were used.The targeted population was nursing mothers, pregnant women and experienced mothers in Kaduna metropolis. Multi stage cluster sampling was used in selecting respondents.Simple random sampling method was used to select eight wards within the metropolis. purposive sampling method was used to select two (2) streets from the eight wards selected, making a total number of sixteen (16) streets. Fourteen (14) households were selected each from the sixteen 16 streets using availability sampling technique, making a sample size of 224 respondents. The study used frequencies, percentages and cross tabulations to analyse responses derived from the questionnaire and to testthe stated hypotheses of the study. The study also made use of in-depth interview to compliment the questionnaire and to cover issues that could not be obtained through the questionnaire. At the end of the data gathering exercise,the study revealed thatmajority (96%) of the respondents have knowledge of exclusive breastfeeding and 58% have a favourable attitude towards it. These results, however, did not have much effect on their practice as only34% practiced exclusive breastfeeding. The study identified other factors hindering the practice of exclusive breastfeeding, such as employment and school, breast problems, lack of commitment, socio- cultural factors, poor milk supply, poverty, medical conditions of mothers and infants,amongst others. Chi square results revealed that there wasa relationship between knowledge and attitude as well as knowledge and practice towards exclusive breastfeeding but no relationship between attitude and practice.The study, therefore recommends that there is need to educate caregivers and not mothers alone on the benefits of practice.This will motivate them to provide the needed support for the practiceof exclusive breastfeeding. Mothers also need to be educated on breastfeeding techniques, as this will help in preventing breast feeding problems, thereby ensuring a successful practice. The study also recommends adequate support from management at work places onthe need for the extension of maternity leave or reduced working hours for nursing mothers, and the provision of facilities to enable mothers breastfeed their babies at work.

CHAPTER ONE

INTRODUCTION

1.1 Backgroundto the Study

Over the years, breastfeeding has been a universal means of feeding infants and a common feature of all cultures since the survival of mankind. It is a phenomenon that is deeply rooted in the tradition of human culture. Although, breastfeeding practices have fluctuated over the years, it is widely regarded as an unequalled way of providing ideal nutrition for the healthy growth and development of infants (World Health Organization, 2002a). Breast milk is mostly referred to as nature's most precious gift to the newborn and the ideal food for the human infant of which an equivalent is yet to be developed by the scientific community despite tremendous advances in science and technology (Nanthini and Jeganathan, 2012).

There are several methods of infant feeding, prior to the discovery and recommendation of exclusive breastfeeding. Mixed feeding has been a common practice, where infants received breast milk and other food or liquids and predominant feeding, where infants receive breastmilk as a predominant source of nourishment and also receive water and water-based drinks or liquids (WHO, 2008).

Exclusive breastfeeding means only breast milk is allowed with the exception of medicine, vitamin syrup and oral rehydration solutionfor the first six months of life to achieve optimal growth, development and health. Thereafter, infants should receive nutritionally adequate and safe complementary foods (WHO, 2002b). Complementary feeding means infants can receivebreast milk, expressed milk or milk from a wet nurse, as well as solid or semi-solid foods, liquids, formula milk,while continuing to breastfeed for up to two years or more (United nations children's funds, 2009). This has been one of the primary aims of nutrition and public health

programmes across the world with the aim of improving infant and child morbidity and mortality and also to improve maternal health. Exclusive breastfeeding is internationally the most preferred way of feeding infants during the first six months of their lives, and it is recognized as being one of the most natural and best formsof preventive medicine (WHO, 2002b).

During the first few days after delivery, colostrum, known asthe first fluid that comes from the breast immediately after birth, is produced and should be fed to the new-born, while awaiting the production of regular breast milk **(**Makena, 2014**)**. It is yellowish in colour, contains high proteinand anti-bodies and often described as the first form of immunization because it is an important source of nutrition and antibody protection for a newborn child. Therefore, it is recommended that infants should be put on the breast immediately or within one hour after birth, which enables the stimulation of breast milk production (WHO, 2002b).

Although, the composition of breast milk varies according to factors such as maternal nutritional status, genetic makeup, maternal dietary habits, and so on, it contains nutrients, anti-bodies, and properties important for growth and development, which makes it a uniquely perfect food for babies with nutrient in the right proportion and ready in the right temperature (Riordan, 2005). Breast milk is the most complete form of nutrition because it has the right amount of fat, sugar, water, and protein which most babies find easier to digest than formula (United nations international children's Emergency Fund, 2009).The water content of breast milk consumed by an exclusively breastfed baby meets the water requirements for infants and provides a considerable margin of safety because breast milk contains 10% solids and 90% water (Lawrence and Lawrence, 2005).

The period from birth to two years of age is a critical window for the promotion of optimal growth, health and behavioural development. Poor nutrition during the first two years of life results to illnesses, delayed mental and physical development or even death (Ajibuah, 2013). Breast milk provides passive immunity against infection, as it protects the infant against infectious and chronic diseases, which reduce morbidity and infant mortality due to common childhood illnesses, such as diarrhoea, pneumonia, and so on.It also provides a quick recovery during illness and improves maternal-infant bonding (Kramer and Kaulma,2001).

The mother also benefits from exclusive breastfeeding by experiencing increased production of hormones that are responsible for uterine contraction, prevention of postpartum haemorrhageand maternal mortality (Labbok, 2001). Other benefits also include:lactational amenorrhea, which is a natural contraceptive, fast return of the uterus to its normal size, reduction in the risk of breast and ovarian cancer and emotional satisfaction (Kumar, 2011). It is also healthy for the mothers as it can help in child spacing among women who do not use contraceptives,it may also reduce the risk of osteoporosis and anaemia as well as allows the mother to recuperate before she conceives again (Leon-Cava, Lutter, and Martin, 2002).

The global rate of exclusive breastfeeding has remained stagnant since 1990 with only 38%of infants aged 0 to 6 months are exclusively breastfed (WHO, 2015). Worldwide, only two out of every five infants under 6 months of age are exclusively breastfed, with large disparities among regions (UNICEF, 2015). Reports from WHO and UNICEF on the current exclusive breastfeeding rates in 2017 revealed that the overall rate of exclusive breastfeeding for infants under six months of age is 40%. This implies that exclusive breastfeedingin most cases achieved less than desired outcomes or run into severe problems, as only 2% increase is recorded as at

2016/2017. Only 23 countries have achieved at least 60% of infants less than six months being exclusively breastfed (WHO and UNICEF, 2017).

The overall exclusive breastfeeding rate worldwide is not satisfactory considering the policy responses established for improving infant and young child feeding practices. One of such responses is the Baby Friendly Hospital Initiative (BFHI) launched in 1991 to encourage exclusive breastfeeding for the first six months of life and continued breastfeeding for at least one year of life. The initiative has been launched in at least 152 countries worldwide and in several parts of Nigeria(UNICEF and WHO, 2009). Although, considerable improvements have been made in some regions, the prevalence of exclusive breastfeeding remains far too low especially in many areas of the developing world which is far below the widely accepted 90% universal coverage target of the international recommendation (Cai, Wardlaw, and Brwon, 2012). This implies thatthere is a great deal of low or non-compliance worldwide. For this reason, the World Health Organization aims to increase the global rate to at least 50% by the year 2025 (WHO and UNICEF, 2014).

Malnutrition is a poor condition of health caused by a lack of food or a lack of the right type of food and it has been responsible directly or indirectly for 60% for the 10.9 million deaths annually among children under-five (WHO, 2012). High mortality/morbidity rates are caused mainly by pneumonia, diarrhoea and malaria with malnutrition as an underlying cause and over two-thirds of these deaths are associated with inappropriate feeding practices that occur during the first year of life. Such occurrence can be avoided by practicing exclusive breastfeeding as the practice of EBF is majorly associated with increased nutrition (WHO, 2012).

Exclusive breastfeeding for the first six months has the capability to prevent 13% of all under five deaths in developing countries (UNICEF, 2014). However, infant and child mortality remains disturbingly high in Africa and other developing countries, despite the significant decline in most parts of the developed world. Only about 39% of infants in the developing countries and 25% in Africa are exclusively breastfed for the first six months (Lauer, Betran, De-onis and Barros, 2004).

In Nigeria, malnutrition contributed to 452,620 under-five deaths in 2013 (NDHS, 2013), while the National Nutrition and Health Survey(NNHS)reported that 37% of under-fives were stunted, 29% underweight, and 18% wasted. Also, NNHS reports showed that 26.6% under-fives had moderate and severe underweight, 44.3% moderate and severe stunting, and 10.9% moderate and severe acute malnutrition.

Although, breastfeeding is a common practice in Nigeria with 97% infants receiving breastmilk, only 17-25% of children less than six months of age were exclusively breastfed(Nte and Njepuome, 2015).However, the Nigerian government has responded to the low prevalence of Exclusive breastfeeding by initiating several programmes and policies responses to promote and support infant and young child feeding practices, such as the Baby Friendly Hospital Initiative (BFHI) in 1992, the National Breastfeeding Policy in 1998, the National Policy on Food and Nutrition in 2001(Ogunlesi, Dedeke, Okeniyi and Oyedeji, 2004).

In2005, the National Policy on Infant and Young Child Feeding was also launched and the Baby friendly community initiative (BFCI) was developed by the United Nations and UNICEF to expand on the BFHI, with the aim of sustaining exclusive breastfeeding after mothers leave the hospital. The initiative emphasises community involvement, formation and training of mother

support groups at the village level, close link to the health facility and training messages (Ekanem and Fajola, 2016).All these are policies set up by the international bodies in collaboration with the Nigerian government to improve the practice of exclusive feeding and child feeding in general. Despite these initiatives, malnutrition, and early childhood feeding related diseases and mortality still remain apublic health problem in Nigeria (Ogbo, Page, Idoko,Claudio and Agho, 2017).

The use of colostrum, pre-lacteal feeding, nutritional supplementation and the duration of breastfeeding has varied and still varies between cultures, urban and rural areas, as well as the rich and the poor (WHO, 2002). Regional or societal differences in breastfeeding reflect the trend towards what is regarded as normal and acceptable in different social settings. There are rules that govern how one ought or should behave in a given context and one's decision and behaviour are interdependent with certain reference groups in that given society and, therefore, require compliance (Bicchieri, 2012).

Worldwide, women adapt their feeding practices to their own circumstances and the environment they live in, which means there is a constant dynamic interaction between a person's behaviour, the characteristics of the person, and the environment (Bandura, 1978). Poor breastfeeding and complementary feeding practices are widespread, particularly in developing countries, leading to early nutritional deficits which are also linked to long term impairment in growth and health (Magawa, 2012).

Breastfeeding intention is affected by both a woman's breastfeeding attitude and by the influence of people in her social network, among others. Although, mothers are mostly in charge of deciding what to feed their children, of which these decisions are done based on the mother's

intention on whether or not to breastfeed partially or exclusively, this decision is mostly influenced by the social network, such as family members. After child birth, there are a lot of expectations among family members, friends, neighbours and colleagues. Therefore, mothers are under constant influence which can have a significant impact on a mother's decision to breastfeed and the duration of breastfeeding (Aarts, 2001).

In a nutshell, adherence to socio-cultural factors, traditional, religious beliefs and practices, as well as societal norms, are major factors that influence breastfeeding practices. In other words, breastfeeding practice is the result of a complex interplay between biological, cultural and psychological determinants. It is a bio-cultural phenomenon, as it is not only a biological process, but also a culturally determined behaviour (Stuart-Macadam and Dettwyler, 1995). Some nursing mothers compliment breast milk with other baby food.Some do this as a result of the influence of cultural beliefs, practices, rites, family members and individual discretion or perception.

Changes in the structure of the society as a result of industrialization, modernization, and urbanization led to a decline in breastfeeding rates and duration. Through the growth in science and technology, advances have been made in nutritional research and that has led to the development of different types of nutritionally adequate and accessible breast milk substitutes (Grummer-Strawn, 1996). This decline started in the industrialized countries and then spread to other less developed countries, especially in large cities and urban settlements (Jellife and Jellife, 1979).

The changing role of women in the society also caused a major decline in breastfeeding duration and the practice of exclusive breastfeeding,as many women identify employment as a barrier to

breastfeeding and as a result of enlarged urbanization and industrialization, more and more women

have joined the work force (Wyatt, 2002). Most women in modern society want to contribute their part in economic activities, thereby creating a tripod duty call as wife, mother and worker. This study, therefore, seeks to find out women's knowledge of the benefit of exclusive breastfeeding, examine the attitude of women towards exclusive breastfeeding, identify the extent of exclusive breastfeeding practices among women in the study area, explore factors that influence the practice ornon-practice of exclusive breastfeeding and, consequently, proffer solutions to the problem.

1.2 Statement of the Research Problem

Sound breastfeeding practices are not the norm in many countriesandadvocates of six months exclusive breastfeeding have expressed concerns over the seeming reluctance of mothers to adhere to the recommendation of WHO andUNICEF with varying degrees of success across the world. (Ajayi, 2012).Exclusive breastfeeding protects children from a myriad of illnesses, increases IQ, promotes a strong bond between mother and infant and also decreases a mothers' risk of breast cancers, among others (WHO and UNICEF, 2017). Yet, only two in five babies worldwide are exclusively breastfed for the first six months of life (UNICEF, 2015). Globally, the overall rate of exclusive breastfeeding for infants under six months of age is 40%, and this is evident that the practice rate is still very low (WHO AND UNICEF, 2017).

Although, breast feeding is a norm in Nigeria and is practiced by 95% of women, exclusive breast feeding is practiced by only few nursing mothers in Nigeria,as only 17%-25% of children less than six months of age are exclusively breastfed (Nte and Njepuome, 2015). Therate of exclusivebreastfeeding is low and declined from 28% in 1999 to 17%and, for over ten years, Nigeria has increased its exclusive breastfeeding rate from 12% to only 25% (National Bureau of statistics, 2014).

Malnutrition is a dominant reason for under-five mortality, of which such occurrence can be prevented through exclusive breastfeeding. It also plays a major role in the health, growth and development of the child. Therefore,it is critical to understand that inappropriate feeding practices are intimately related to malnutrition, which causes child deaths. Many of the nutrition-related diseases can be reduced in our society if mothers will fully subscribe to the practice of exclusive breast feeding(Labbok, 2001).

Nigeria is one of the six countries that accounts for half of all child deaths from malnutrition worldwide and, every year, one million children under five die, 45% of them due to causes attributed to malnutrition (National Nutrition and Health Survey, 2014). According to the 2013 survey, 37% of children under-five are stunted, or too short for their age as a result of chronic malnutrition. Nigeria has achieved only an average of 1.2% reduction in under-five mortality per year since 1990, and it needs to achieve an annual reduction rate of 10% per year from now until 2020 to meet SustainableDevelopment Goals (Nigeria Demographic and Health Survey, 2013).

The introduction of solid foods before six months of age is associated with increased rates of infection, reduced breast milk production, disruption to the micro biome and possibly obesity.Yet, more than half of Nigerian infants receive complementary foods too early(Binns,

2011; Ugwu and Obi, 2010). Some infants are given non-breastmilk to feed on before initiating breast feeding (pre-lacteal feeds), and others are given non-breast milk to feed on after breastfeeding has been initiated (post-lacteal feeds)(WHO, 2008).These foods often lack appropriate energy, protein or micronutrients, such as iron, vitamin A, zinc and iodine, thereby causing under nutrition, which consequently results to infant morbidity and mortality (Ugwu and Obi, 2010).

According to NNHS(2014), 71% of Nigerian children are predominantly breastfed, meaning that aside breast milk they might have received either water or non-milk liquids. Such practices are also found in Kaduna State, as established by Mathew, Amodu, Sani and Solomon (2009), Complementary foods were introduced to majority of the infants much earlier at the third month (41.2%) and 17.8% at less than two months which isan aberration to the six-month bench mark. This shows that compliance rate is lower than theUnited Nations Children's Funds (UNCF) and the World Health Organisation's 90% targeted compliance rate.

The fifth round Multiple Indicator Cluster Survey carried out in Nigeria in 2016/2017 by the National Bureau of Statistics (NBS) and United Nations Children's Fund (UNICEF) reported that only 23.7 % of infants under 6 months of age are exclusively breastfed.The NNHS reports in 2014 also established that the likelihood of breastfeeding children exclusively is significantly higher in the South West with 40% and significantly lower in the North West 10% which Kaduna State is a part of.

In the same vein, Anigo, Owolabi, Dehinde and Hassan (2015) investigated Malnutrition status of women and children in Kaduna State, Nasarawa State and Niger State. Theyobserved that severe acute malnutrition (SAM) prevalence among children 0-59 months of age is higher in Kaduna State with 27.6 % and over 50% of mothers in Kaduna practiced prelacteal feeding. According to Usman (2018),the present Governor of Kaduna state, Mallam Nasir El Rufai, said that the number of malnourished children remained very high despite ongoing efforts to address it. The State Government promised to reduce hunger and malnutrition by 50% and to increase exclusive breastfeeding rate by 50% by 2025.

The Federal Government has also been committed to the overarching Millennium Development Goals of reducing infant and under five mortality by two thirds by the year 2015, through the establishment of the Baby-Friendly Hospital Initiative (BFHI) in various parts of the country with the aim of providing mothers and their infants a supportive environment for breastfeeding. It was also established to promote appropriate breastfeeding practices, thereby helping to reduce infant morbidity and mortality rates(Salami, 2006 and Biccheiri, 2012). However, the country is far from attaining the goal of child and infant mortality reduction because the rate of exclusive breastfeeding in Nigeria is low and falls short of the 90% UNCEF's targeted compliance levels needed to achieve a substantial reduction in child mortality (Cai et al. 2012). With the end of Millennium Development Goalsera, the international community has agreed to a frame work which is the Sustainable Development Goals. According to the World Health Organization, breastfeeding is critical for the achievement of many sustainable developments goals as it improves nutrition, prevents child and maternal mortality rates and decreases the risk non-communicable diseases.

Knowledge and attitudes are important psychosocial factors that influence breastfeeding prevalence in general (Chambers, Mcinnes, Hoddinott, and Alder, 2007).Empowering women with knowledge of appropriate breastfeeding practices enables them to make informed decision which will consequently improve the rates of exclusive breastfeeding because it is expected that knowledge of exclusive breastfeeding should result to a favourable attitude and practice. However, the practice rate of exclusive breastfeeding is low in spite of the improved level ofknowledge.This is because knowledge alone does not lead to behavioural change as it needs to be backed up with other factors (UNICEF, 2010). In addition,Heightened awareness and knowledge of health risks are important preconditions for self-directed change. Unfortunately, information alone does not necessarily exert much influence on refractory health impairing habits. (Bandura, 1990).

For instance, Bahemuka, Munyanshongore and Birungi (2013), in their study found out that majority(74.4%) of the women involved in the study have correct knowledge of exclusive breastfeeding and majority also (71.1%) have a positive attitude towards it, but only 34.4% of them practiced it to 6 months. This signifies a possible disconnect between knowledge received and implementation of knowledge acquired. Similarly, Bako (2017), in his study on Kaduna State,found out that majority (78%)of the respondentsclaimed they practiced excusive breastfeeding but when asked on when they introduced complementary foods, only 19% introduced complimentary foods at six months. This shows a contradiction because introducing other food earlier than six months is no longer exclusive breastfeeding. This shows that incorrect knowledge of exclusive breastfeeding exists, and there are still women who are ignorant or do not have proper knowledge of exclusive breastfeeding and breastfeeding techniques.

Lack of knowledge results to difficulties in breastfeeding and misconceptions, such as the inability of the mother to produce adequate quantities of milk to sustain the needs of the new born, the decreased nutritional value of milk or the quest to quench baby's thirst. These misconceptions are accompanied by myths and negative attitudes towards exclusive breastfeeding that leads to poor practice and the continued feeding of their babies with other supplements before six months. It also implies that mothers are constantly faced with multiple barriers to continue breastfeeding despite having the knowledge. One of such barriers is employment.

Previous studies likeGuthie (2000) and Salami (2006) identified employment as a barrier to the practice of exclusive breastfeeding.This is more prevalent in modern societies where conditions of life and work do not favour breastfeeding. Other factors include: influence from social norms, cultural practices and family, maternal education, level of income, among others (Salami, 2006). These factors are likely also to prevail in Kaduna metropolis.With the growth in science and technology, access to breast milk substitutes has resulted to a decline in breastfeeding rates.Some mothers do not practice exclusive breastfeeding. They instead substitute or replace breastmilk with formula feed, as breast milk has been branded as archaic and uncivilized practice associated with the poor (Aarts, 2001).

The benefits of exclusive breastfeeding cannot be over emphasized.For the child, it provides a stronger immunity that lowers the risk of contracting multitude of other diseases and chronic illnesses (Pan American Health organisation, 2002). It not only save lives of children younger than 5 years, but also improves children's quality of life. For instance, those children who are

malnourished and manage to survive do not enjoy good health and experience impaired development in the long run. Therefore, increasing rates of breastfeeding can help reduce the prevalence of various illnesses and health conditions, which in turn results in lower health care costs by lowering direct and indirect expenses (Clark and Bungum, 2003). These have a significant impact on the economy of the country as better infant health means fewer health insurance claims, less employee time off to care for sick children, and higher productivity (WHO, 2009).

Despite all these benefits associated with exclusive breastfeeding, many countries especially developing countries like Nigeria, are stillbattling to meet up with the targeted compliance rate by the international health organizations.To improve exclusive breastfeeding, factors influencing its practice and non-practice have to be identified in order to target programme and implementation which will promote maternal and infant health. This research work, therefore, is aimed at investigating women's knowledge, attitude, and practice of exclusive breastfeeding in Kaduna metropolis and to proffer solutions to the problem.

1.3 Research Questions

The following research questions were asked to guide the study:

1. What is the state of women's knowledge of exclusive breastfeeding?
2. What is the attitude of women towards exclusive breastfeeding?
3. What is the behaviour of women towards exclusive breastfeeding in Kaduna metropolis?

4. What are the factors that influence the practice and non-practice of breastfeeding among women in the study area?

1.4 Objectives of the Study

1. To find out women's knowledge of exclusive breastfeeding
2. To examine the attitude of women towards exclusive breastfeeding in Kaduna metropolis
3. To identify the behaviour of women towards exclusive breastfeeding in the study area.
4. To examine factors influencing the practice and non-practice of exclusive breastfeeding, among women in the study area.

1.5 Hypothesis

H_0: There is no relationship between respondent's knowledge and attitude towards exclusive breastfeeding

H_1: There is a relationship between respondent's knowledge and practice of exclusive breastfeeding.

H_0: There is no relationship between respondent's attitude towards exclusive breastfeeding and practice of exclusive breastfeeding.

1.6Significance of the Study

The study serves as an eye opener, especially to the women population who are ignorant of the benefits of exclusive breastfeeding.It also serves as a tool for educating women on newborn

feeding practices. The study motivates health professionals and health care providers on the need to intensify and widen their scope of counselling services to expectant mothers for proper education on exclusive breastfeeding.The study was able to elicit information that unveiled challenges faced by women in their bid to practice exclusive breastfeeding so that necessary actions can be taken to prevent and overcome such challenges.

The study also emphasizedthe need for communities, government and the society as a whole to create a favourableconducive environment and space for mothers to practice exclusive breastfeeding without undue influence from social network, such as peers, elderly females, mother in-law, and so on. As past strategies did not consider the social norms linked to the practice and, therefore, did not address those who influence and enforce the current practice.
Hence, the study will aid the ministry of health and other organizations concerned with infant and young child feeding in determining the type of interventions to design in order to improve maternal and child health.The study also contributes to the growing body of scientific knowledge and will also add to existing literature on the subject of exclusive breastfeeding.

1.7 Scope of the Study

The study covers Kaduna metropolis. As an academic exercise, the study focuses on knowledge ofexclusive breastfeeding, attitude towards exclusive breastfeeding and practice of exclusive breastfeeding among lactating mothers, expectant mothers and experienced mothers in Kaduna metropolis. The study also focuses on the factors influencing their practice and non-practice. The

study will be limited to the primary and secondary data available at the disposal of the researcher.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.0 Introduction

This chapter seeks to review literature related to the study. It sheds more light on the state of knowledge on what other scholars have written on exclusive breastfeeding. This chapter contains literature on conceptual review on the major concepts of the study as well as empirical review on exclusive breastfeeding rate, knowledge of exclusive breastfeeding, attitude towards exclusive breastfeeding, behaviour towards exclusive breastfeeding, factors influencing the practice and non-practice of exclusive breastfeeding, the benefits of exclusive breastfeeding and theoretical framework.

2.1 The concept of Exclusive Breastfeeding

Several health organizations, such as WHO, UNICEF, American Academy of Paediatrics, recommend exclusive breastfeeding for the first six months. It is considered as the most preferred way of infant feeding based on scientific evidence of the benefits for infant's survival, growth, and development. According to WHO (2002), exclusive breastfeeding means the infant receives only breast milk from his or her mother or a wet nurse, or expressed breast milk, and no other liquids or solids with the exception of drops or syrups consisting of vitamins, mineral supplements, or medicine. Gartner, Morton and Lawrence (2005), defined exclusive breastfeeding as an infant's consumption of human milk with no supplementation of any type (no water, no juice, no non-human milk and no foods) except for vitamins, minerals and medications.

Introduction of solid or liquid foods to infants before the six months of age has been discouraged by many health organizations due to health implications associated with it. According to Naylor and Morrow (2001), if solids or complementary foods are introduced before a baby's system is ready to handle them, it is most likely going to be poorly digested and that may cause unpleasant reactions, such as digestive upset, gas, constipation, among others. This is because full term infants are not developmentally ready for the transition from suckling to sucking or for managing semi-solids and solid foods in addition to liquids until around six months of age. To enable mothers to establish and sustain exclusive breastfeeding for 6 months, WHO and UNICEF recommends initiation of breastfeeding within the first hour of life, exclusive breastfeeding, breastfeeding on demand, that is, as often as the child wants, day and night and also no use of bottleteats, or pacifiers (Gartneret al,2005).

2.1.1 Exclusive Breastfeeding Rate

Exclusive breastfeeding for up to six months has been the desired goal of many health organizations, but partial breastfeeding, as well as breastfeeding for shorter periods of time, has been and still remains prevalent in different parts of the world. Although, mothers have the edge to practice breastfeeding, majority of them are unable to exclusively breastfeed their infants for the recommended period as there exists serious obstacles to practicing it until six months from the infant's birth.

The rates of exclusive breastfeeding have improved over the recent past, with the global rate put at 37% (UNICEF, 2011). This was achieved through numerous awareness campaigns launched by national governments, multilateral organizations, non-governmental and private sector organizations across the globe to educate mothers and families about the benefits of exclusive

breastfeeding and with the aim to encourage the practice (Ogbo et al, 2017). Such initiatives include Baby Friendly Hospital Initiatives (BFHI) and establishment of work place breast feeding facilities. Despite all these initiatives put in place, exclusive breastfeeding rate is particularly low in Africa, where less than one third of infants under six (6) months old are exclusively breastfed (UNICEF, 2009). According to (WHO, 2012), one out of three children has been exclusively breastfed in Africa. In addition, information provided by WHO (2011) on breastfeeding practices in 94 countries estimates that only 35% of the infants between zero and four months are exclusively breastfed.

Aborigo et al(2012) also observed that exclusive breastfeeding practices are worse in West Africa, where only 6.1% of babies who are younger than six months old are exclusively breastfed and large differences exist in the EBF rates between regions and among countries. South Asia, East Asia / Pacific and Eastern / Southern Africa are regions with the highest levels of exclusive breast feeding (44%, 43% and 39%). The rates of exclusive breastfeeding are particularly low in West and Central Africa (23%), East Asia and Pacific (28%), Central and Eastern Europe/Common Wealth of Independent States (CEE/CIS) with 29% (UNICEF, 2011). The rates of exclusive breastfeeding are less than overall breast-feeding rates due to the practice of giving complementary feeding.

In Nigeria, breastfeeding practices continue to fall well below the WHO/UNICEF recommendations for developing countries. According to the Nigeria Demographic and Health Survey (2008), Nigeria's exclusive breastfeeding rate decreased from 17% in 2003 to 13% in 2008. Rural and urban differentials have also been documented in the practice of exclusive

breastfeeding as the practice was reportedly higher (41%) in the urban areas compared with 38% in the rural areas.

In addition to breast milk, 34% of infants aged 0–5 months in Nigeria are given plain water only, while 10% are given non-milk liquids and juice, and 6% are given milk other than breast milk. Furthermore, 35% of infants aged 0–5months are given complementary food. Data on Infant and Young Child Feeding (IYCF) practices revealed that, despite the importance of breast milk, only 25% of infant under-six months were found exclusively breastfed in Nigeria. The likelihood of exclusively breastfeeding children is significantly higher in the South West (40%), and significantly lower in the North West (10 %) (NBS, 2014).

2.2 The Concept of Knowledge

Many attempts have been made to give a systematic description of knowledge and how it is acquired. However, there are several philosophical perspectives (worldviews) on the concept. A branch of philosophy known as Epistemology, explained how we come to know about what exists (Rescher, 2003). There have been arguments and debates on what knowledge is and how it is acquired among philosophers. Some of these views include the fact that some or all knowledge is observational, some or all knowledge is non-observational but attained by thought alone, some or all knowledge is partly observational and not attained at once by observing and thinking (Roderick, 1989). They also came up with conditions for knowledge such as belief, truth, justification among others. However, the definition of knowledge is a matter of ongoing debate among philosophers in the field of epistemology as there is no consensus on the definition of knowledge and how it is acquired, as there exist different views from philosophers. There are

three basic categories of knowledge as distinguished by philosophers. They include: personal, procedural and propositional knowledge (Rescher, 2003).

Personal knowledge also known as knowledge by acquaintance is cognizance of a circumstance or fact gained through first-hand experience or observation. It is acquired based on familiarity with someone or something. Procedural knowledge, also known as practical knowledge, is on how to do something which involves possession of skills. In other words, it is a skill-based knowledge, while propositional knowledge, also known as factual knowledge, is known as knowledge of facts which means it is acquired based on facts and that is the kind of knowledge epistemologists are more concerned with (Hume, 2008).

One of the first philosophers to attempt a definition of knowledge was the Ancient Greek philosopher, Plato. He argued that for a factual claim to be knowledge, it has to be a belief which is true and justified. In other words, it must be justified, true and believed (Moravcsik, 1979). Many philosophers such as Such as Aristotle, Plato and Kant have looked at the source of our knowledge claims, and there are two main schools of thought with reference to this issue. They are rationalism and empiricism.

Rationalism is of the view that knowledge does not come from the senses but from reason. Rationalists argue that senses can deceive us (e.g. hallucinations during illness, mirages, mistaken identities, optical illusions, etc.). Therefore, experienced knowledge is often unreliable and should not have a greater claim to knowledge. We should instead derive knowledge only from our reason and logical abilities. Empiricism, on the other hand, argues that knowledge is

gained by experience and is acquired through the five senses (Baehr, 2006). Furthermore, Immanuel Kant in his work, 'The Critique of Pure Reason', distinguished two types of knowledge. He proposed that there are two main types of knowledge, the a priori and a posteriori knowledge. A priori is from a Latin phrase from 'what is before' and aposteriori 'from what is after". Therefore, a priori knowledge is knowledge of propositions that do not require (sense) experience to be known to be true, while aposteriori is knowledge of propositions on the basis of experience (Baehr, 2006).

Philosophers have failed to agree on the definition of what constitutes knowledge. Rather, their efforts have been directed towards describing different knowledge dichotomies. The development of the scientific knowledge has made a significant contribution to how knowledge of the physical world and its phenomena is acquired. The scientific method consists of the collection of data through observation and experimentation and the formulation and testing of hypothesis (Newton, 1999). This type of knowledge is recognized and used in today's world. It is believed that the scientific process is a reliable, free from bias and emotions. Some forms of knowledge may be religious, traditional or superstitious and such kinds of knowledge have been discredited by science. In this study, knowledge means awareness and understanding of exclusive breastfeeding. It is measured based on the ability of the respondents to narrate what exclusive breastfeeding means, how it is done, and the benefits of doing it.

2.2.1 Knowledge of Exclusive Breastfeeding

Knowledge on exclusive breastfeeding has been identified as one of the major factors that determines breastfeeding practices and duration. "Knowledge is power" is a common adage

mostly used in various parts of the world. Lack of correct exclusive breastfeeding knowledge and the inability to apply the knowledge in breastfeeding infants is a very serious threat to the practice of exclusive and adequate breastfeeding (Maduforo and Onuoha 2011)**.** Breastfeeding education emphasizes the superiority of breast milk on the basis of overwhelming scientific proof (Ngwu, 2015).

Acquiring knowledge is usually the first step before action and it can change traditional attitudes towards child health and nutrition. Previous studies have shown that educated mothers are more likely to practice exclusive breastfeeding than illiterate mothers. This is because women with higher levels of education place more value in their own health and the health of whom they care for and the educated mothers are less likely to adhere to local customs that prescribe inclusive breastfeeding instead of exclusive breast feeding (Ajibade, Lokunlade, Omakinde Amoo and Adeyemo, 2013).

In addition, Alhaji (2002) reported that improved maternal education enhances mothers' understanding and appreciation of the demands and benefits of exclusive breastfeeding and empowers them to resist external interferences and pressures. However,Oche, Umar and Ahmed, (2011) in their study had a contrary opinion which reveals that the educational level of mothers in Kware, northern Nigeria, had no influence on the practice of exclusive breastfeeding. A good number of people may not properly understand the importance of knowledge on breastfeeding, how it should be given, the timing, duration, correct techniques and appropriate time of weaning mother's milk. This implies that education is still necessary especially when the benefits of exclusive breastfeeding are not immediately apparent to the mothers.

Olayemi et al (2014) conducted a study on factors influencing the practice of exclusive breastfeeding in three regions of Nigeria found out that 90% of women who participated in the study heard about exclusive breastfeeding, but not all of them had accurate knowledge of exclusive breastfeeding. There were variations in the exact definition of exclusive breastfeeding as many interpreted it to be just "till the start of 6 months," meaning, they mistook the message of "till sixth month" to mean getting to the sixth month.

Similarly, Mbwana, Colon and Von hurst (2013), in their study on mother's awareness, discovered that mothers in their study area did not fully understand all the health benefits of breastfeeding both to the infant and the mother. Apart from the obvious benefit which is nutrition, they were not aware of other benefits, such as reduced risk of lung infection among babies, good development of baby's teeth and gum, and reduced risk of breast problems among breastfeeding mothers. Also, Shirima, Greiner, Kyberg and Gebre-Medhin (2001), in their study on Tanzania, reported that the advantages of breastfeeding mentioned by mothers were only those related to the infant and none to the mother. They also reported that mothers' knowledge on feeding options influences their practices because the study found out that mothers who were educated on exclusive breastfeeding during antenatal visits tend to breastfeed exclusively than others who do not. In addition, antenatal visits may provide a platform for healthcare providers to educate and inform expectant mothers through counselling on the necessity of exclusive breastfeeding practices

Healthcare providers are usually taken to be the most influential because mothers see them as their role models; therefore, mothers who have satisfactory knowledge on breastfeeding are more likely to practice exclusive breastfeeding than those who have poor knowledge. Although, it was

observed that there was a high frequency of antenatal attendance, but nearly all these attendees had not received information and counselling regarding breastfeeding which may have contributed to mothers' lack of knowledge (Mbwana et al, 2013).This is because healthcare providers may not have up-to-date knowledge on the benefits and management of breastfeeding and so may hesitate to offer advice about breastfeeding (Street and Lewallen, 2013), and some health care providers are knowledgeable only in some aspects of breastfeeding,while some are not ready to educate or counsel women. Similarly, a study carried out in Enugu revealed that lactating mothers admitted to lack of adequate education in antenatal clinics on techniques of exclusive breastfeeding and nutrition practices for lactating mothers, even though some of their fears were unfounded and would have been dispelled by sound health and nutrition talk (Uchenna, 2012).

Mbwana et al (2013) also found out that nurses' major sources of knowledge on breastfeeding were their own personal experiences, clinical experiences and personal reading which was discovered to be unsatisfactory, and this inadequate knowledge can negatively affect the quality of information passed to expectant mothers during antenatal visits. However, less contact with health facility contributes to the low or no knowledge on the benefits of exclusive breastfeeding which in turn affects the attitude and practice of exclusive breastfeeding, especially in rural communities where there is little or no access to health facilities and local perceptions of what constitute optimal infant feeding practices may differ greatly from international recommendation (Maduforo and Onuoha 2011). For example, majority of the pregnant women do not deliver in health facility in Kebbi State and when the delivery takes place at home, it is not assisted by trained health personnel (Biccheiri, 2012).

Also, Ajibuah (2013), in his study on Yobe State, reported that only14% of the respondents delivered in health facility, while the remaining mothers delivered at home. Such women are less likely to receive breastfeeding education than women who delivered their babies in health facilities. Women who do not use health facilities mostly receive their breastfeeding education from members of the society who are not trained medical personnel. Various studies showed that the major source of breastfeeding information identified by women were mothers, grandmothers and mothers-in-law and such cases are mostly found in rural communities, where there is limited access to health facilities. Shirima et al (2001) stated that mothers who received information on breastfeeding from people who are not health care personnel and traditional birth attendants had a shorter duration of exclusive breastfeeding.

In their study on Tanzania, Mbwana et al (2013) found out that majority of women are unaware that breast milk alone is sufficient for a baby for six months and most of them believed that four to five (4-5) months is the appropriate time for introducing solid foods. Similarly, a study conducted in Zimbabwe shows that the majority of women think food should be given to the baby at three months because they think the baby is mature enough to tolerate solids (Mudzengerere, 2013). This is because mother with high education level have knowledge on correct timing of complementary feeding compared to mothers from low education level (Agbo et al 2011). Although, some mothers have received education on breastfeeding, it still has no influence on their breastfeeding practices as there are factual beliefs like the child cannot survive without water in hot weather and requires adequate food early for growth (Bicchieri, 2012).

Also, a study carried out in Zimbabwe discovered that majority of the mothers do not agree that exclusive breastfeeding is practicable which means most of the mothers do not believe they can

breastfeed their babies exclusively for six months (Mudzengerere, 2013). Knowledge acquisition on exclusive breastfeeding has to an extent influence the attitude and practice of exclusive breastfeeding but has not entirely influenced the practice as there are still cases of women who are aware or have been educated on the benefits of exclusive breastfeeding, and yet do not practice it because some of them question the credibility of health care workers whom they said do notpractice exclusive breast feeding but expect the mothers in the communities to do so. The health care service providers are expected to be role models and provide educational sessions and influence for mothers to accept the practice (Bicchieri, 2012).

Some health care workers themselves do not believe in exclusive breastfeeding because there is a decrease in the level of awareness on the importance of exclusive breastfeeding by health workers now than the previous years (Ndiokwelu, Maduforo, Amadi and Okwe-Nweke, 2014). For some, implementing what they have learnt is not completely possible as breastfeeding decisions are not only for the mothers to make. Breastfeeding practices are passed down from one generation to another. lack of knowledge by the older generation about exclusive breastfeeding affects younger mothers. For instance, in Mozambique, Lack of knowledge by the older generation about exclusive breastfeeding proved to be the force behind mixed feeding (Arts, Geelhood, De Schacht, Prosser, Alons and Pedro, 2011).

Although, knowledge acquisition on the importance and benefits of exclusive breastfeeding is considered as one of the key instruments in promoting its practice, it is not entirely effective due to the fact that information received is also dependent on motivation to implement such knowledge. For instance, Agunbiade and Ogunleye (2012), in their study on the constraints to exclusive breastfeeding practice among breastfeeding mothers in Southwest Nigeria, found out

that majority (94%) of the respondents had high level of awareness about exclusive breastfeeding but only 19% of the nursing mothers practiced exclusive breastfeeding. This means that the practicability of exclusive breastfeeding has gone beyond knowledge acquisition. However, more emphasis has been made on breastfeeding knowledge ignoring motivational strategies on how to improve the practice and that is a gap this study intends to fill.

2.3 The Concept of Attitude

Fritz (2008) defined attitude as an optimistic or pessimistic reaction of people, substance, occurrence, behaviour, thoughts, or anything within the surroundings. It is a favourable or unfavourable evaluation of people, objects, ideas and situations. It means a feeling, opinion or belief about something or someone that guides decisions and behaviour (Fazio, 1995). In other words, they are tendencies to respond positively or negatively towards a recommended action.

Attitude consists of three aspects: These include cognitive, affective and behavioural. The cognitive aspect refers to the thinking that brings about the development of a belief about the attitude object. The affective refers to the direction (positive or negative feeling) emotion experienced towards the attitude object **a**nd the behavioural aspect, is the likelihood of acting in a certain manner towards the attitude object. Thinking, feeling and behaving come together and forms an attitude towards a person or an object (Howarth, 2006). In other words, attitude can be derived from emotions or feelings, beliefs or opinion, inclination for action and evaluation. Therefore, attitude plays a significant role in influencing individual's choice of action. In this study, attitude means a combination of people's opinion, feelings, beliefs and their evaluation of

exclusive breastfeeding—evaluation in the sense of how people view exclusive breastfeeding, whether good or bad, beneficial or not.

2.3.1 Attitude towards Exclusive Breastfeeding

Attitudes can be positive or negative; they are conscious or unconscious beliefs that can guide decisions and behaviours. In other words, it is an individual's evaluation or beliefs about a recommended response. Therefore, a woman's attitude towards breastfeeding and how she chooses to feed her baby are closely linked to the woman's culture. This is because beliefs emanate from culture, self-perception as well as religion. A deep desire to breastfeed an infant is not shared by every mother. In fact, even before the advent of bottles and formula, many affluent women avoided breastfeeding altogether by paying poorer women to do it for them in an arrangement called wet-nursing (Hahn-Holbrook, Schetter and Haselt, 2012).

Attitude, to a large extent, determines the willingness to conform to a particular thing or behaviour. People's belief that they can motivate themselves and regulate their own behaviour plays a crucial role in whether they even consider altering habits detrimental to health(Bandura, 1990). Hence, maternal beliefs and attitude are dictated by some cultural practices acquired within the family setting and the community level. Previous studies (Bass and Groer, 1997; Daglas and Antoniou, 2012) have shown that negative attitude and bad cultural beliefs affect mother's compliance to the recommended breastfeeding practice.

Davies (1997) concluded that exclusive breastfeeding totally lacked credibility among the locals in Nigeria, with even health workers not believing that it was possible or feasible. Buttressing on the point above, some women do not practice exclusive breastfeeding because they question the

credibility of health care workers who do not believe in or practice exclusive breast feeding but expect the mothers in the communities to do so (Bicchieri, 2012). The health care service providers are expected to be role models and provide educational sessions and influence for mothers to accept the practice.

Although, knowledge acquisition on exclusive breastfeeding has, to an extent, influence the attitude and practice of exclusive breastfeeding. It has not entirely stimulated a positive attitude, as there are still cases of women, who are aware or have been educated on the benefits of exclusive breastfeeding, and still do not subscribe to it. A study carried out by Ajibade et al (2013) in Osun State revealed that majority of the respondents have been informed of exclusive breastfeeding, yet, did not guarantee their practising it. Many mothers believed that there is no difference between the growth rate and intellectual capacity of an exclusively breastfed child and a non-exclusively breastfed child (Ndiokwelu et al, 2014).

Agunbiade and Ogunleye (2012), in their study on Constraints to exclusive breastfeeding practice among breastfeeding mothers in Southwest Nigeria, found out that exclusive breastfeeding was considered essential but demanding and Only a small proportion (19%) of the nursing mothers practiced exclusive breastfeeding. This suggests that there are in some cases conflicts between knowledge and beliefs as even though one acquires the knowledge, belief seems to have more influence on decision and action as many women believe that breast milk is not enough for their baby (Maduforo and Onuoha 2011).

Similarly, Okwy-Nweke, Anyanwum and Maduforo (2014) found out that, although majority of women have knowledge on exclusive breastfeeding, only few of them actually practice exclusive breastfeeding. They are still not convinced that an infant can thrive on breast milk alone for the

first 0-6 months of life as there are other factual beliefs like the child cannot survive without water in hot weather and requires adequate food early for growth (Bicchieri, 2012). One of many reasons for low acceptance of exclusive breastfeeding is confidence on the part of the mothers that the child is getting enough, while for some they find breastfeeding in public places very discomforting (Ike, 2013).

A study carried out in Zimbabwe discovered that majority of the mothers do not agree that exclusive breastfeeding is practicable which means most of the mothers did not believe in the possibility that they can breastfeed their babies exclusively for six months (Mudzengerere, 2013). Some mothers do not welcome the idea of exclusive breastfeeding because of fear of alteration in the breast figure or shape and also accompanied by the women's fears that the changes brought upon their bodies by pregnancy and the lactation process have made them unattractive to the opposite sex and their husbands or friends (Daglas and Antoniou 2012). According to Alade, Titiloye, Oshiname and Arulogun (2013), some women have misconceptions, such as a woman who practices exclusive feeding will lose a lot of nutrients, experiences sagging of the breast and will also cause a woman's sleep to be disrupted, without remembering that nature has made it that breast must go flabby whether sucked by baby or not (Ike, 2013).

The attitude of the members of the society or community in which a nursing mother belongs to influences her practice as well. Every society has beliefs about the appropriate age to wean a child, of which some do not support exclusive breastfeeding. Women who violate their local norms can face social stigma and that makes women sometimes feel extensive social pressure to breastfeed according to the norms of the society. For instance, many women in the United States

report that they receive negative reactions from others if they breastfeed contrary to what is expected of them (Kendall-Tackett and Sugarman, 1995). The attitude of partners could also influence infant feeding practices as some have negative attitudes towards breastfeeding due to its impact on women's sexuality (Rempel and Rempel, 2011). Breastfeeding, therefore, can lead to decreases in sexual desire and cause vaginal dryness for a subset of women, making sex painful (Brown and McDaniel, 2008).

There are many women that resort to artificial feeding in order to continue their relations with their husbands or mates (Daglas and Antoniou 2012). For example, breastfeeding women report more vaginal pain during intercourse at three (3) months postpartum than formula feeding women (Connolly, Thorp, and Pahel, 2005). The study investigates why some mothers with knowledge on exclusive breastfeeding still have negative attitudes towards the practice. It attempts to unveil factors that influence their lack of acceptance of the practice of exclusive breastfeeding.

Attitudes are product of individual's orientation on what is appropriate and inappropriate. This orientation emanates from the individual's personal traits, environment and socialization which includes cultural, social, educational, religious and economic, among others. Since all these factors influence or determine attitude and behaviours, breastfeeding education so far has been limited mostly to expectant mothers by restricting access to information to ante-natal visits. In other words, emphasis has been placed more on expectant mothers, ignoring other members of the society, especially significant others like spouse's mother-in-law, among others. This study intends to address this gap.

2.4 Women's Behaviour towards Exclusive Breastfeeding

Over centuries, efforts have been made to understand how behaviour is formed, and how values, beliefs, attitudes and social interaction are related to behaviour or action. There are a number of factors that determine the likelihood of engaging in a particular behaviour. These determinants are classified as either internal factors or external factors (Cole, Holtgrave, and Rios, 1992). Social psychologists propose that behaviour, therefore, is a product of individual's beliefs, values and attitudes.

Oxford Dictionary (2016) defined behaviour as the way in which a person acts in response to a particular situation or stimulus. These actions are influenced by eras, cultures, societies, communities and environment that individuals are part of (Underwood, 2002). According to Fishbein and Ajzen (1975), constructive attitude might not be projected positively in action (behaviour) due to barrier from external social factors. Therefore, social norms must also be considered for an individual to react. Many cultures differ in their attitude and beliefs on breastfeeding; some of our beliefs are based on direct experiences or personal observations and also based on interactions with others. A mother's subjective judgement on exclusive breastfeeding and interactions with others often leads to formation of beliefs which determines her behaviour towards it (Underwood, 2002). This means behaviour is mostly influenced by personal, societal norms, values, and interactions with others. These result to social influence because people affect the thoughts, feelings, and behaviours of others (Moscovici and Markova 2006).

For instance, a lot of women have the perception that it is good to give water to a baby after every breastfeeding. Some women think that breast milk is only food for the baby and not fluid which is needed to keep the child hydrated. This subjective judgement hinders them from breastfeeding their infant exclusively (Mbwana, 2013).Also, previous studies such as Al-Shosan (2007) and Biswas (2010) have shown that significant others like grandmothers, friends, co-workers, neighbours, among others, impacts a social influence on a women's choice of infant feeding. Every new mother, when deciding on the type of infant feeding to adopt, is influenced by her physical ability and personal beliefs and also by social and cultural customs. Although, breastfeeding is a natural act it is also a learned behaviour of which many cultures have their own individual beliefs on infant feeding which has a potential negative impact on the baby's health or mother's health. Therefore, a mother's behaviour and approach to breastfeeding is largely dependent on the culture she is born into, environment personal beliefs and attitude as well as her increasing knowledge (Davies, 1997). Many women see their mothers as role models and consider their opinion especially on how to feed their babies sometimes more superior to others. In fact, health professionals struggle with the challenge of socio-cultural practices conflicting with modern medicine because breastfeeding is more of a social behaviour than a medical practice (Nanthini and Jeganathan, 2012).

2.5 The Concept of Practice

Oxford Dictionary defined practice as the actual application or use of an idea, belief, or method, as opposed to theories relating to it. It involves the repetition of an activity to improve skill. It may also mean the customary, habitual, or expected procedure or way of doing something. In other words, it is the habitual or expected way of doing something. Practice, in this study, means

the type of infant feeding method that is done by mothers prior to the knowledge of exclusive breastfeeding and after acquiring the knowledge of exclusive breastfeeding. This includes how infant feeding is done and why it is done; therefore, practice as regards to this study means a common way of feeding an infant.

2.5.1 Factors Influencing the Practice and Non-Practice of Exclusive Breastfeeding

The extent to factors that affect exclusive breastfeeding varies from one country to another and or between different groups in the same country. These factors are combinations of economic, social, environmental, cultural, biological among others.

2.5.2 Socio Economic Factors

In developing countries, increasing levels of education, industrialization, urbanized occupations, income and improved standard of living has negatively affected the practice of exclusive breastfeeding. The practices of exclusive breastfeeding have been associated with a lot of changes in the society. One of such factors is the level of income of mothers. The choice of infant feeding method is influenced by the economic condition of the individual, the family and country. According to Njeri (2015), low income mothers are presented with unique challenges as most of them are petty traders or casual labourers and, in most cases, they are not offered the three-month maternity leave or they do not qualify for the leave due to their casual engagement. If such mothers are to stay at home to exclusively breastfeed as is proposed, these mothers would have no income. Therefore, a woman's economic situation can have a profound effect on her physical and emotional well-being.

In contrast to the above point, it has been observed that infants from the wealthiest households are less likely to be exclusively breastfed than those from the poorest households (Emmanuel and

Oyewole, 2012; Al-Shoshan, 2007). This is because people from wealthy household can afford to buy breast milk substitutes which makes them refuse to breastfeed their babies exclusively, because they feel that breastfeeding babies exclusively is not for modern woman so they depend on cow's milk in order to show themselves as belonging to the high class (Ike, 2013). Breast milk substitutes are expensive, inferior and often dangerous substitute for breast milk, but formula manufacturers have nonetheless aggressively advertised and marketed them and that has resulted to frequent use of breast milk substitute rather the real breast milk (UNICEF, 1999).

In contrast, (Agho et al 2011) discovered that the socio-economic status of mothers influences the decision of mothers to exclusively breastfeed in the sense that mothers with higher socio-economic status tend to have high education and are more likely to be better informed about the practice of exclusive breastfeeding than mothers with lower socio-economic status. Similarly, exclusive breastfeeding was found to be more prevalent among women with higher incomes in Brazil (Henry, Nicolau, Americo, Ximenes, Bernheim and Oria, 2010). Women with lower income status do not have access to formal education and, therefore, will be less likely to practice exclusive breastfeeding because high income was associated with higher educational achievement and understanding of exclusive breastfeeding (Mbwana, 2012).

Employment status of women plays a major role in determining the practice of exclusive breastfeeding. The occupation of the mothers determines to a large extent the number of times the mother spends with the baby and how the baby feeds. Traditionally, especially in Africa, women's place is considered to be at home doing domestic duties and women's occupation as

house wives shows positive association with their exclusive breastfeeding status compared to that of those employed outside the home (Okwy-Nweke, *et al* 2012).

Housewives and self-employed are more likely to practice exclusive breastfeeding because they breastfeed their new born babies whenever they want so they feed their babies on demand (Oche et al 2011). The likely explanation for this association could be that these types of mothers, have more chances to be with their babies all day, and so they provide their breast milk to their babies based on the babies' demand. The employed ones are away from their babies due to their job because at a time the mother is most likely to experience conflict of roles and have difficulty balancing the role of a wife, a mother, and a worker (Maduforo and Onuoha 2011). Although, women with higher status jobs are more likely to have access to a lactation room and suffer less social stigma from having to breastfeed or express breast milk at work. Therefore, type of work and hours of work have also been shown to influence breastfeeding. According to Adelaja (2012), urban mothers, especially, those with lower job status, complained of lack of crèche in offices which hindered their ability to exclusively breastfeed.

It is almost certain that women who go back to work before their babies are six months old will face challenges in adhering to the practice of exclusive breastfeeding. Therefore, practising exclusive breastfeeding is being perceived as being non-compatible with working outside of the home (Kio, 2015). Returning to work after maternity leave is one of the reasons to discontinue breastfeeding and that period is mostly before six months. The work environment and attitude of fellow workers also play a great role in encouraging and supporting mothers in the practice

because women frequently attribute early weaning to unsupportive work environments (Uchenna 2012).

Studies such as Ortiz et al (2004) andRaju (2006) have shown that nursing mothers are faced with workplace obstacles to breastfeeding at work. Many mothers are faced with the challenge of employers' perception that the presence of infants in the workplace reduces mothers' productivity.

Also, many employers and boss frown at mothers coming to work with their babies and that disturbs the nursing mothers psychologically and discourages nursing mothers to practice exclusive breastfeeding due to the fact that they need to keep their job hence resolve to giving the babies artificial milk to lessen their problem (Odu and Dotun, 2007). For co-workers, breastfeeding of infants in the work place publicly makes them uncomfortable and mothers have been subject to derogatory comments from supervisors and co-workers for extra breaks taken to pump milk when they return to work. They worry that breastfeeding in public is seen as a sexual act rather than a maternal act (Chin, 2010).

Therefore, problems, such as lack of privacy and adequate time to express breast milk are cited as barriers in previous studies. Lack of enough facilities to support breastfeeding mothers makes it difficult to feed their babies directly from the breast. Regulations and other rules exist in some work places which bar children from the workplace, and a lack of child care close to the workplace put mothers in a compromising position. Mothers facing workplace obstacles to breastfeeding at the workplace are more likely to experience some psychological problems, such as tension and anxiety and that affects their ability to exclusively breastfeed.

Although, women's experience of workplace related barriers to breastfeeding varies by occupation, whether formal or informal employment, they all experience some form of strain or barriers to successful breastfeeding (Fein and Roe, 1998). However, women with higher wages and flexible work schedules were more likely to have longer duration of breastfeeding than women with lower wages and inflexible schedules (Njeri, 2015).

2.5.3 Socio-Cultural Factors

There are many cultural practices associated with infant feeding of which certain undesirable practices need to be discouraged. Culture is a contributing factor to the low acceptance of exclusive breastfeeding of which breastfeeding is one of the many health behaviours that have been largely affected by social norms. Culture is defined as "the life ways of an individual or a group with reference to values, beliefs, norms, patterns, and practices. Culture is the legacy that group members pass down from one generation to another and every culture has unique knowledge of care practices and that includes breastfeeding patterns. Mothers are most likely to feed their infants in the same manner in which they themselves were fed and according to the norms and beliefs operational in her environment.

The practice of giving the infant some fluids or foods before initiation of breastfeeding and during breastfeeding depending on cultural influences is very common in most societies (Dimond and Ashworth, 1987). Although, this practice is now slowly changing partly as a result of the Baby Friendly Hospital Initiative, traditional practices and breastfeeding patterns have

persisted despite the social changes that have taken place as a result of modernization and urbanization.

Cultural practices vary across societies and regions. Studies of feeding practices in different countries have shown a large variety of beliefs and traditions related to breastfeeding, while some of these can encourage breastfeeding, others may discourage it (Emmanuel and Oyewole, 2012). A good understanding of local beliefs, customs and traditions related to breastfeeding can help healthcare providers and breastfeeding advocates provide better support and more appropriate counselling to breastfeeding mothers (Chinofunga and Matiashe, 2013).

Breastfeeding culture is well enshrined in the various ethnic groups in Nigeria. For example, in the northern part of Nigeria, there are existing beliefs that are widely practiced that every newborn must be welcomed with local herbs for increased immunity and the belief that the child cannot survive without water. This factual belief stems from the fact that water is life and everyone including the newborn needs water especially during hot weather (Bicchieri, 2012).

The Yoruba culture believes that babies need herbs for strength and water for thirst. Thus, the use of herb brew and water along with breast milk is considered ideal. They believe that the infant needs drinking water to suppress thirst and accelerate faster growth (Davies, 1997). Therefore, for most Yoruba mothers who are culturally oriented, the probability that they will not practice exclusive breast feeding exists (Kio, 2015).

In Tanzania, studies reveal that the use of pre-lacteal feeds is a norm in both rural and urban settings with belief that it calms the crying baby. Early introduction of non-milk foods, such as

thin maize, porridge and animal milk as early as a few weeks or months after birth, is a common practice among women in Tanzania (Shirima et al, 2001). In a study carried out in Cameroon, women believed that breastfeeding provides an incomplete food which would not increase the infant's weight so it was felt that the baby should be fed with food grown by their family (Kakute et al, 2005). In Bangladesh, 98% of newborn are traditionally fed with "heating foods," such as honey, sugar water, or mustard oil. Mothers believed that these foods provide strength to the babies and protect new-borns from cold during the first few days of after childbirth. Mothers also believed that honey makes the babies' voices sweet (Rehana, 1998). Some mothers believed that breastfeeding would cause their breasts to sag or lose shape, while others believed if they conceived while the child was still breastfeeding they had to stop breastfeeding (Rehana, 1998).

The major source of support regarding mother's breastfeeding intention has a significant influence on breastfeeding behaviours. The influence from these significant referents affects the mother's decision on initiation and exclusive breastfeeding. Women experience support when they receive care, concern, respect, understanding, advice, encouragement and practical help (Williams, 2005). Within the family, the mother of the new mother had the greatest influence on feeding practices, followed by the mother-in-law and other individuals.

Similarly, Uchenna (2012) found out that most of the respondents in the study identified mothers and mothers-in-law as the main source of discouragement in their quest to breastfeed exclusively. Amadhila (2005) discovered that mothers mainly received support on infant feeding decisions from their spouses, their mothers and health workers. For many mothers, the spouse is the most important provider of breastfeeding support. Women who feel unsupported by their

partner with regard to their breastfeeding decisions are less likely to be successful in breastfeeding.

Ajibade et al (2014) in their found out that women who are unmarried and divorced were more likely to stop breastfeeding their infants than women who were in union as having never been in married was associated with higher risk of early introduction of complementary foods.This pattern suggests family, community and society as a whole influence breastfeeding practices by providing emotional, instrumental, informational, and financial support. It is also an important factor in initiation and maintenance of exclusive breastfeeding for six months. First time mothers, especially, might have difficulty in infant breastfeeding. Lack of social support, therefore, has emerged as a key constraining factor on infant breastfeeding choices (Kio 2015). Family members and society are the disapproving and approving social referents towards optimal breastfeeding, therefore, effort to promote breastfeeding behaviours need to address these social referents (Underwood, 2002).

According to Al-Shoshan (2007), the age of the mothers also influences their decisions to breastfeed. This is because older women have greater probability to continuation of breastfeeding, which increases the possibility of breastfeeding exclusively more than younger mothers. Younger women mostly belong to the work force and, in some cases, are still schooling. Therefore, combining school, work and breastfeeding is very challenging to mothers (Kio 2015). The number of children that a mother has may influence when she introduces solid foods to her baby's diet. In a study of infant feeding in Waterloos, mothers cited "experience with previous children" as a reason for starting solid foods (Nadler, 2007).

2.5.4 Medical Factors:

Although, health professionals agree that human milk provides the most complete form of nutrition for infants, there are rare exceptions when human milk is not recommended due to a woman's environmental exposure or her own medical condition. Therefore, the health condition of the mother or the infant is also a determining factor for the practice and non-practice of exclusive breastfeeding. There are health cases that may justify recommending a nursing mother not to breastfeed temporarily or permanently (WHO and UNICEF, 2008). For instance, infants born weighing less than 1500g (very low birth weight), infants born at less than 32 weeks of gestation (preterm) may need other food in addition to breast milk for a limited period. Infants with diseases like maple syrup urine disease, classic galactosemia, phenylketonuriaare recommended not receiving breast milk or any other milk except specialized formula (WHO and CHD 2008).

Mode of delivery has also been reported as one of the predictors of exclusive Breastfeeding. Vaginal delivery is more associated with the practice of exclusive breastfeeding (Makena, 2014). Caesarean section delivery is associated with the inabilities to breastfeed exclusively. It may influence exclusive breastfeeding in various ways, including anaesthetics effects on mother and baby during first contact, mother's inability to get correct position for breastfeeding due to pain or having intravenous line and also impaired bonding between mother and new born due to negative feelings of mother to herself, baby, physician or relatives (Mahshid, Seyyed and Yekta, 2015). This suggests that mothers who delivered by caesarean section were less likely to fully breastfeed as caesarean section is associated with decreased duration of breastfeeding and may lead to early weaning.

It is generally recommended that women completely avoid the use of any types of drugs, while breastfeeding for the health of their babies as it is known that most drugs can pass into human milk. Therefore, nursing mothers undergoing medications, for example, antiretroviral medications, sedating psycho-therapeutic drug, anti-epileptic drug, excessive use of topical iodine or mothers dependent upon an illicit drug or substance use, such as nicotine, alcohol, ecstasy, amphetamines, cocaine and related stimulants have been demonstrated to have harmful effects on breastfed babies and mothers with certain diseases, such as untreated, active tuberculosis are exempted from breastfeeding temporarily or permanently depending on the case (CDC, 2015).

2.5.5 Nutritional Status of the Mother

All mothers can produce adequate amounts of breast milk, except if they are malnourished. The growth and development of the baby is determined by the food taken by the mother. Therefore, from conception to after birth, the baby receives all the nutrients for the first six (6) months exclusively from the mother's milk and is followed by a gradual introduction of complementary foods after 6 months. Along with the mother's milk this means the baby completely depends on the mother's nutritional status (Gopalan et al 2013). Therefore, mother's nutritional status affects her breastfeeding ability. In most developing countries, the nutritional status of women is compromised by the cumulative and synergistic effects of many risk factors. These include limited access to food, safe water, traditions and customs that limit women's consumption of certain food. Although, some pregnant women avoid some specific food as a result of dislike or on medical grounds (Zepro, 2012).

Several communities have food taboos for their pregnant women which in advertently deprive them of some vital nutrients (Parmar, Khanpara and Kartha, 2013). Several studies have indicated that pregnant women in different parts of the world are forced to abstain from nutritious food which contains essential nutrients but seen as culturally forbidden in pregnancy which consequently affect quality and quantity of breast milk. Miscarriage, complications during childbirth or baby being born with certain abnormalities are often believed to be caused by the mother who may have eaten certain foods not allowed in pregnancy. For example, in the South-Western and Central part of Ethiopia, pregnant women are forbidden to take all foods which are white in colour, such as milk products, fatty meat, porridge and potato. Such foods are believed to be plastered on the body of the newly born baby. It is also assumed that the newly born baby and mother will have a bad smell if a pregnant woman eats vegetables (Zepro, 2012).

In Nigeria food, taboos also vary from tribes and communities. According to Maduforo (2010), pregnant women in Nwangele Local Government of Imo State held on to food taboos handed to them from generations to generations. Grass cutter, meat, cassava, noodles, spaghetti, cocoa, beverages, egg and snail were identified as foods prohibited for pregnant women with several consequences attached to non-compliance. Also, in Ghana, pregnant and lactating women are forced to abstain from intake of snail because they believed make the baby to salivate too much and ripe plantain due to its softness which is believed to result in lethargies and soft babies and so causes prolonged labour (Otoo et al, 2015). Most food taboos especially in West Africa are usually concerned with the intake of protein rich food, such as snails, egg, meat, and so on and this consequently results to iron and protein deficiency which likely leads to anaemia.

Lactating mothers can enhance their breast milk production through the intake of healthy and balanced diet because during lactation, there is the need for increased calcium, protein and

calorie intake of which some of these foods that provide these nutrients are prohibited by some cultures in the society (Shams, 2011). The energy, protein, and other nutrients in breast milk come from the mother's diet or from her own body stores. When women do not get enough energy nutrients in their diets, they quality as well as the quantity of breast milk becomes affected. Therefore, maternal deficiencies of some micronutrients can affect the quality of breast milk

2.6 Benefits of Exclusive Breastfeeding

Infants who are breastfed exclusively experience nutritional and developmental advantages that enhance their health and growth throughout their lives, thereby reducing morbidity and mortality rate among children. For children, breastfeeding supports optimal development and protects against acute and chronic illness (USBC, 2003). Frazer and Cooper (2003) posited that breast milk is not only safe for the baby but has numerous benefits for the mother as well. The cells, hormones, and antibodies in breast milk protect babies from illness. This protection is unique, of which formula cannot match the chemical makeup of human breast milk. Breastfed children exhibit greater resistance to infectious disease and stronger immune systems than their formula fed peers and they also experience lower rates of chronic diseases (Clark and Bungum, 2003).

Formula fed babies are more exposed to ear infections and diarrhoea. They also have higher risks of lower respiratory infection, atopic dermatitis, a type of skin rash, asthma, obesity, type 1 and type2 diabetes and child hood leukemia and allergies (Gartner et al, 2005). As with type 1 diabetes, several chronic digestive diseases have been linked to early exposure to cow's milk proteins. Children who receive breast milk for up to seven months are less likely to be overweight and obese than children who receive breast milk for less than three months (Gillman

et al, 2001). The family of digestive diseases, whose primary symptom is diarrhoea, occurs less often among breastfed children and is less severe when it does occur (Howie, Forsyth Ogston, Clark and Florey,1990).

According to Jelliffe and Jelliffe (1978), early cessation of exclusive breastfeeding predisposes the infants to diarrhoea, respiratory tract infections and allergies. Beaudry, Dufour and Marcoux (1995) conducted a study and found out that, out of 430 breastfed infants, there was only one hospital admission due to respiratory illness compared to 51 admissions in 346 bottle-fed infants. The study concluded that breastfeeding prevented hospitalization for respiratory illnesses. This is because exclusively breastfed infants have stronger immune systems which account for their reduced risk. Other developmental benefits of breastfeeding are that it enhances brain development and learning readiness. Breast milk is the most complete form of nutrition for infants because it has just the right amount of fat, sugar, water, and protein that is needed for a baby's growth and development. These nutrients are provided to the infant at the right temperature and with minimum absorptive capacities of the baby. Most babies find it easier to digest breast milk than they do formula.

Dewey, Cohen,Brown and Rivera (2001) assessed the effects of the breastfeeding rates and infant growth, findings revealed that exclusive breastfeeding accelerates weight and length gain in the first few months. Infants exclusively breastfed for six months crawled and walked sooner, compared to infants who were exclusively breastfed for only four months because it helps to overcome low birth weight (LBW) and reduces stunting (Maduforo and Onuoha, 2011). Several observational studies have also found that breast milk keeps the infant adequately hydrated, even

in tropical settings, such that additional fluids, including water, tea, and other liquids are not required by the infant when breastfed (Black and Victora, 2002).

Breast milk is hygienic, safe and always available to the infant, hence breastfeeding exclusively eliminates the intake of potentially contaminated food and water. This is because when breastfeeding, there are no bottles and nipples to sterilize unlike human milk straight from the breast, infant formula has a chance of being contaminated (WHO, 2011). It also saves an estimated six million lives of infants every year (UNICEF, 2005). Exclusive breastfeeding is also associated with lower rates of chronic disease and it is known to prevent adult onset disease like coronary artery disease and hypertension (Smith and Harvey, 2011).

Infants when exclusively breastfeed for the optimal duration of six months are considerably protected against the major childhood diseases conditions such asdiarrhoea, gastrointestinal tract infection, allergic diseases, leukaemia and lymphoma and so on (WHO, 2012; American Academy of Pediatrics, 2012).Studies have been done to find out the relationship between breastfeeding and other childhood illnesses it was discovered that breastfeeding protects infants against infectious diseases, including bacteraemia, meningitis, infant botulism, and urinary tract infections (Heinig and Dewey, 1996). In a study by Vennemann et al (2009), breastfeeding was found to be protective against sudden infant death syndrome by reducing the risk by 50% at all ages during infancy. Therefore, exclusive breastfeeding reduces the rate of infant mortality.

The benefit of exclusive breastfeeding is not limited to the baby alone but also has several benefits for the mother. For mothers, breastfeeding helps with recovery from pregnancy and childbirth and provides lifelong health advantages. Breastfeeding minimizes postpartum bleeding and aids in rapid uterine involution. Breastfeeding, especially exclusive breastfeeding, delays the return of normal ovulation and menstrual cycle, thereby delaying the return of fertility which helps to reduce short birth interval and reduces mortality risk among children born after short interval. In other words, breastfeeding is effective in prolonging post-partum amenorrhoea therefore provides some protection against pregnancy (Jimoh, 2004).

Breastfeeding also lowers the risk of breast and ovarian cancers, and possibly the risk of hip fractures and osteoporosis after menopause because as a result of nursing a baby, the womb contrasts and reduces blood flow after delivery and creates a less chance that the mother will later develop breast or even cancer of the uterus. Breastfeeding also helps mothers to return to

their previous weight before pregnancy faster than women who practice formula feeding (Labbok, 2001). Breastfeeding also establishes a close bond between mothers and infants, thus strengthening feelings of security in the child at the outset of life (Mika, 2011). Research also suggests that exclusive breastfeeding is associated with a lower risk of HIV transmission (UNICEF, 2006).

In a study carried out in Harare Zimbabwe between 1997 and 2000, mixed breastfeeding quadrupled mother-to-infant HIV transmission and was associated with a three times greater risk of transmission and death by age 6 months when compared to exclusive breastfeeding. Breastfeeding offers society not only improved health of children and mothers but also economic and environmental benefits. Breastfeeding reduces the need for costly health services that must be paid for by insurers, government agencies, or families. Breastfeeding reduces the number of sick days that families must use to care for their sick children. Added to this, are the costs of health care for the sick infants exposed to contaminants from mixed feeding or water in addition to breast milk. When mothers miss work to care for sick infants, employers and the economy are also affected. Breastfeeding requires no packaging, and its production does not harm the environment (USBC, 2003). Breastfeeding is better for our environment because there is less trash and plastic waste compared to that produced by formula cans and bottle supplies.

It is a truism that despite the influence of cultural practice on exclusive breastfeeding among women both in rural and urban communities, the practice of exclusive breastfeeding tends to over the years change as a result of increasing level of awareness of benefits of exclusive breastfeeding. Although, there is a wider coverage of maternal education, sensitization, awareness campaign, and improvement of maternal health services, the practice of exclusive

breastfeeding is still low which is attributed to certain attitudinal factors and myths, such as beliefs in insufficiency of breast milk to nourish the infants, introduction of herbal mixture to the infants to boost their immunity among others.

This study investigates more why exclusive breastfeeding practices are still low despite increased knowledge. Over the years, past studies concentrated so much on the roles of mothers in infant feeding and little attention has been paid to the role of significant others, such as fathers (husbands) and elderly females in the family. So, much emphasis has been placed on knowledge and attitude and that does not necessarily translate into practice. That is a knowledge gap this study intends to explore.

2.7 Theoretical Framework

The relevant theory to be reviewed is the social cognitive theory. Social cognitive theory stemmed from the Social Learning Theory which has a rich historical background dating back to the late 1800's. In 1941, Miller and Dollard proposed the theory of social learning. Albert Bandura and Walters in 1963 broadened the social learning theory with the principles of observational learning and vicarious reinforcement and developed it into the social cognitive theory in 1986 (Pajares, 2002).

The theory posits that learning occurs in a social context with a dynamic and reciprocal interaction of the person, environment, and behaviour (Bandura, 1986). Social cognitive learning theory highlights the idea that much of human learning occurs in a social environment. By observing others, people acquire knowledge of rules, skills, strategies, beliefs, and attitudes. Individuals also learn about the usefulness and appropriateness of behaviours by observing

models and the consequences of modelled behaviours and they act in accordance with their beliefs concerning the expected outcomes of actions and people learn based on their past experience and the experience of others.

The theory defines human behaviours as a triadic, dynamic, and reciprocal interaction of personal factors, behaviours, and the environment. This is often known as reciprocal determinism. (Bandura, 1999). According to this theory, an individual's behaviour is uniquely determined by each of these three factors. Environmental factors represent situational influences and environment in which behaviour is preformed, while personal factors include instincts, drives, traits, and other individual motivational forces.

Bandura contends that people are both products and producers of their environment. Among other personal factors individuals possess, self-beliefs that enables them exercise a measure of control over thoughts feelings and actions that what people think, believe and feel affects how they behave (Bandura, 1986). Because human lives are not lived in isolation, environment and social systems influences behaviour. In other words, people's behaviour is also determined by the aspects of the environment to which they are exposed, and behaviour is, in turn, modified by that environment (Bandura 1989). It considers the unique way in which individuals acquire and maintain behaviour, while also considering the social environment in which individuals perform the behaviour.

The theory considers a person's past experiences, which factor into whether behavioural action will occur and it explains how people acquire and maintain certain behavioural patterns. The first

five constructs were developed as part of the social learning theory. The construct of self-efficacy was added when the theory evolved into social cognitive theory. This includes Reciprocal Determinism, which is the central concept of the social cognitive theory. This refers to the dynamic and reciprocal interaction of person (individual with a set of learned experiences), environment (external social context), and behaviour (responses to stimuli to achieve goals). Behavioural Capability refers to a person's actual ability to perform behaviour through essential knowledge and skills. In order to successfully perform behaviour, a person must know what to do and how to do it. People learn from the consequences of their behaviour, which also affects the environment in which they live.

The third tenant is Observational Learning which asserts that people can witness and observe behaviour conducted by others, and then reproduce those actions. This is often exhibited through modelling of behaviours. If individuals see successful demonstration of behaviour, they can also complete the behaviour successfully. Reinforcement as the fourth tenants refers to the internal or external responses to a person's behaviour that affects the likelihood of continuing or discontinuing the behaviour. Reinforcements can be self-initiated or in the environment, and reinforcements can be positive or negative. This is the construct of social cognitive theory that most closely ties to the reciprocal relationship between behaviour and environment.

The fifth construct is Expectations; it refers to the anticipated consequences of a person's behaviour. Outcome expectations can be health-related or not health-related. People anticipate the consequences of their actions before engaging in the behaviour, and these anticipated consequences can influence successful completion of the behaviour. Expectations derive largely

from previous experience. While expectancies also derive from previous experience, expectancies focus on the value that is placed on the outcome and are subjective to the individual (Bandura 1997).

The last construct is self-efficacy; it refers to the level of a person's confidence in his or her ability to successfully perform a behaviour (Bandura, 1994). Self-efficacy is unique to SCT, although other theories have added this construct at later dates, such as the Theory of Planned Behaviours. Self-efficacy is influenced by a person's specific capabilities and other individual factors, as well as by environmental factors including barriers and facilitators (Bandura, 1997). In a nutshell, this theory posits that people can learn by observing others. Learning is an internal process that may or may not lead to behaviours change, behaviours eventually or increasingly becomes self-regulated cognitive processes influence motivation and learning. People and their environments influence each other and reinforcement and punishment have indirect effects on learning and behaviours.

The Social Cognitive Theory explains how people learn and acquire knowledge which is an important element of behavioural change. When people learn or acquire knowledge about the appropriate infant feeding practices and breastfeeding techniques and are adequately informed about the risk and benefits of certain actions or lifestyles, they will be more likely or motivated to initiate a change. Knowledge acquisition can be said to be the first step to behavioural change. This knowledge or information, as Bandura argued, is a necessary but not a sufficient basis for change. This explains why some women who are aware of the benefits of exclusive breastfeeding do not practice it. Knowledge needs to be accompanied with other factors, such as

behavioural capability, a person's confidence in his or her ability to successfully perform behaviour (self-efficacy), outcome expectation, either consequences or rewards. People are likely to adopt behaviours that are beneficial to them and also likely to otherwise if the anticipated outcome is deemed to be bad or negative.

However, individuals' behaviour change efforts can be impeded by personal factors (beliefs, attitudes, instincts), socio-structural, economic, cultural, religious, or environmental factors. In a nutshell, based on the social cognitive theory, for a breastfeeding mother to accept this recommended practice of infant feeding, she needs to be thoroughly educated on its benefits, have a positive attitude towards it, be confident in her ability to practice it and also be encouraged by the desired outcomes.

The social cognitive theory explained how "knowledge" is acquired through observational learning which means women are most likely to breastfeed their children based on how they see it done in their environment. This theory shows that knowledge can lead to action, but it is not sufficient to sustain an action. This means knowledge of exclusive breastfeeding can motivate the practice of exclusive breastfeeding, but mother's personal characteristic, such as instinct, emotion, perception, beliefs, among others, form an attitude which can influence decision to practice exclusive breastfeeding. Other environmental (external) factors such as social support, socio-cultural, and economic factors,also determine whether the practice of exclusive breastfeeding will be sustained or discarded.In other words, the presence or absence of these factors, functions to either initiate or restrain healthy behaviour such as exclusive breastfeeding.

In addition, outcome and expectation of exclusive breastfeeding can also influence a mother's decision to practice exclusive breastfeeding. In a nutshell, the social cognitive theory explains exclusive breastfeeding as a health behaviour that is influenced by a core set of determinants, such as knowledge, attitude, self-efficacy, outcome, expectation, among others. These factors or influences are not of equal strength and the strength of influence varies among individuals.

2.7.1 Strength and Weaknesses of Social Cognitive Theory

Social cognitive theory has been criticized for being so broad and lacking any unifying principle or structure. It was also criticized for not being able to explain behaviour andbehavioural differences. People are viewed to be dynamic, and so it is difficult to implement the theory in its entirety. Instead, implementation is likely to focus on one or two concepts, such as self-efficacy. The theory is loosely organized based solely on the dynamic interplay between person, behaviour, and environment. It is unclear the extent to which each of these factors into actual behaviour and if one is more influential than the other (Lee, 2010).

Advocates of social cognitive theory assume that behaviour is primarily learned through observation, expectation and reinforcement. However, it ignores that as people move through life, their behavioural patterns can change drastically with little change in their environment. Behaviour is much more consistent regardless of situation and that simple changes in environment do not always lead to changes in behaviour (Lee, 2010). The theory has also been criticized for ignoring biological differences and hormonal responses on people's behaviour. Regardless of past experience and expectation, hormones can affect one's decision-making abilities and, therefore, change one's behaviour. Also, the theory ignores genetic differences that

could lead to disparities between people's cognitive abilities and behaviour. Social cognitive theory has been able to give an accurate picture of how behaviour is learnt as well as explained inconsistencies in behaviour. The theory has been able to integrate social and cognitive theories

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter contains vivid description of the methodology adopted for this study. These include: the location of study, population of study, types and sources of data, sampling technique and sample size, variables of the study, methods of data collection and methods of data analysis.

3.1Location of the Study

This study was conducted in Kaduna metropolis which is the capital of Kaduna State. The state is located at the northern part of Nigeria and was founded by the British in 1913. It became the capital of Nigeria's former northern region which is made up of Katsina and Zaria in 1917 and it retained its status until 1967, when it became the capital of north central state which was later renamed Kaduna State in 1976. It is a state in central Nigeria and is politically classified as the northwest geopolitical zone of Nigeria.

The State shares boundaries with Niger State to the West, Zamfara, Katsina and Kano States to the North, Bauchi and Plateau states to the East and FCT Abuja and Nassarawa State to the South. Kaduna State occupies 46,053 square kilometres and it consists of twenty-three local governments with an estimated population of 6.4 million people according to 2006 census, which then put the density at about 137 persons per square kilometre.The State is divided into three senatorial zones, namely; Kaduna North, Kaduna Central and Kaduna South with 255 political wards (NPC and ICF Macro, 2009).

For the purpose of this study, the metropolis is within the enclosure of these areas: Kawo, Agwan Dosa, Malali, AgwanRimi, Mahuta, Sabon Tasha, Agwan Romi and Mando.

Agriculture is the dominant occupation of the people.This involves crop planting, animal rearing and poultry farming which are form the mainstay of the economy of Kaduna State. Trading and civil service jobs are also dominant occupations that exist in the metropolis. Kaduna State is a metropolitan as well as a cosmopolitan industrialized state with commercial and manufacturing industries. Due to these economic activities in the metropolis, the city is inhabited by different ethnic groups, non-indigenes inclusive. There is a wide diversity in culture and lifestyle between the predominantly Moslem Hausa northern population and the southern Christian population of a variety of ethnic groups such as Atyap, Bajju, Jaba, as well as non-indigene tribes such as Igbo, Yoruba, Idoma, among others.

The choice of this location was influenced by the researcher's familiarity with the terrain which enabled the researcher to have easy access to information and the cultural diversity in the area enabled the researcher to obtain diverse view on the phenomenon of the study.Also, previous research by Isa et al (2016) has shown that Kaduna State has low exclusive breastfeeding practice rate. Similarly,Bako (2017),in his study of Infant and child mortality trends differentials in Kaduna State, found out that majority of the infants receive complementary food at the fourth month (27%) and at the fifth month (23%) which implies that the practice of mixed feeding is still prevalent in the state. In the same vein,the level of under-five mortality in Kaduna State has remained high since the past 10 years with an estimated under five mortality rate of 163/1,000births with malaria as a major cause of death. Diarrhoea, malnutrition, measles and

acute respiratory tract infections were also other causes of death (Bako, 2017). Such diseases can be prevented through the practice of exclusive breastfeeding as one of the major benefits of exclusive breastfeeding is passive immunity against infectious and chronic diseases (WHO, 2009). These reasons also influenced the researcher's choice of the location.

3.2 Population of the Study

The target populationiswomen who belong to the reproductive age. This consists of lactating mothers, experienced mothers and expectant mothers. These age category was chosen because only women of reproductive age, who are currently nursing infants or those who have experienced child birth in the past, will be in a better position to share their perceptions and experiences and also provide in-depth information on the phenomenon of study. In addition, male care givers (nursing fathers) health care providers and significant others were also chosen to make up part of the population. Care givers were selected because of the roles they play in infant feeding in terms of decision makingand support. They have a direct or indirect influence on pregnant women and nursing mothers, while health professionals were chosen because of their knowledge and experience with women on exclusive breastfeeding.

3.3 Types and Sources of Data

Primary and secondary data were used for the study. The primary data consists of data collected through survey questionnaire, and In-depth interview, data was drawn from the population of the study, which includes lactating mothers, expectant mothers, experienced mothers, nursing fathers, significant others and health care givers. The questionnaire was administered only to experienced mothers, lactating mothers and expectant mothers. The in-depth interview was

conducted on nursing fathers (male care givers), elderly females, and healthcare providers. The secondary data was collected from hospital records that were found relevant to this study.

3.4 Sampling Technique and Sample Size

The study made use of multi-stage cluster sampling method, which involves a combination of sampling methods to suit the peculiarity of the location of study. The first stage involved selecting wards that make up the metropolis using the simple random method.This method was chosen because it gives every sample unit an equal chance of being selected which avoids researcher's bias.

Kaduna metropolis comprises of the following wards: Kawo, Hayin Banki, Badarawa, Ungwan Sarki, Ungwan Shanu, Ungwar Dosa, Sabon Gari, Malali, Unguwar Rimi, Mahuta Kabala Constain, Doka, Kabala Doki, Kabala West, Kakuri, Makera, Ungwar Sanusi, Baduko, Tudun Wada, Tundun Nupawa, Barnawa, Television, Ungwar Sunday, Narayi, Sabon Tasha, Ungwan Romi and Mando.Using simple random sampling method, the (27) wards were given a serial number (1-27) and after a reshuffle a ward was picked continuously until eight wards were selected. Selected wards include: Ungwar Rimi, Kawo, Barnawa, Sabon Tasha, Makera, Malali,Kabala constain and Mando.

In the second stage, in each of the eight (8) neighbourhoods selected, purposive sampling method was used to select two (2) streets making a total number of sixteen (16) streets. The selected two (2) streets wereto ensure that all the neighbourhoods chosen are represented. Selection was done ensuring a fair distribution of the streets in the area. Purposive sampling was used at this stage

because to compile an exhaustive list of all the streets in the selected wards is impractical because not all streets are properly named and documented.

In the third stage, availability sampling method was used to select fourteen (14) household each from the sixteen 16 streets making a total sample size of 224. At this stage, household selection was done based on the availability of women who meets the criteria of the population of study, which consists of pregnant women, lactating mothers and experienced mothers. This method was used to in order to avoid choosing houses that may not have a potential respondent.

These sample sizeswere adopted because it will be more manageable as regards to time and resources, thereby ensuring successful completion of the study. It is worthy to note that these areas selected are of different socio-cultural backgrounds in the sense thatresidents of these neighbourhoods are a combination of Muslims and Christians, Hausa and Southern Kaduna tribes as well as other tribes from other extractions. This peculiarity will provide diverse views on the phenomenon under study.

For the in-depth interview (IDI), six (6) key informants were selected based on their experience on the phenomena under study, the key informant comprised of two (2) husbands of a breastfeeding mother (male care giver) two (2) older women and two (2) health care providers. Experienced mothers were interviewed in other to elicit information on how breastfeeding has been done in time past and to get views on the culturally accepted ways of breastfeeding as well as to get more information on the roles played by elderly females like them on breastfeeding decision and practice. The views of husbands of breastfeeding mothers provides more information on the roles they play in infant feeding decisions and support for the breastfeeding

mother. Health care providers were interviewed because of their extensive knowledge on the phenomenon and their experience in the profession as regards to exclusive breastfeeding in the metropolis.

3.5 Variables of the Study

In social research, establishing relationship between two or more variables and determining which of the variable causes the other to occur is very essential. In the course of this study, the dependent variable of this research work is the practice of exclusive breastfeeding which is determined by knowledge, attitude, education, level of income, occupation, ethnicity among others (independent variables).

3. 6 Methods of Data Collection

In order to collect reliable data and capture the range of information required in pursuance of the research objectives, Quantitative and Qualitative methods of data collection was used for this study. The use of both methods helped the researcher to maximize the benefits of the use of different methods to investigate different aspects of the same phenomenon, thereby arriving at a more reliable conclusion. For quantitative data, survey method was applied through the use of questionnaire, the questionnaire contained carefully worded questions relevant for the purpose of this research study and it comprised of both close and open-ended questions. The open-ended questions allowed respondents to freely express their opinion on the topic, while the close-ended questions allowed respondents to pick within the range of the specified options**.** Linkert scale format was also used to determine the degree of responses. The questionnaire was divided into five (5) sections.

Section A focused on Socio-demographic data of the respondents, Section B focused on women's knowledge of exclusive breastfeeding, while Section C focused on attitudes of women towards exclusive breastfeeding. Section D identified women's behaviour towards exclusive breastfeeding practices; Section E examined factors influencing the practice and non-practice of exclusive breastfeeding. The questionnaire was self-administered cases, where the respondents are unable to fill the questionnaire; the researcher administered the questionnaire in form of interview. Out of the 224 questionnaire administered, 208 questionnaires were retrieved some copies were either missing or not properly filled. For qualitative data, in-depth interview was used.This was included in order to compliment the questionnaire and cover issues that could not be obtained in the questionnaire. An in-depth interview guide was designed to elicit information from male care givers (nursing fathers) experienced mothers (grandmothers) and health care providers because of the important role they play in infant feeding.

3.7 Methods of Data Analysis

For quantitative data, descriptive statistics and inferential statistics was employed in analysing data collected in the study.This includes the use of tables, frequencies, counts, percentages and chi square test(cross tabulations). This helped in determining the nature of data collected and was used to analyse the response obtained from the questionnaire. The cross tabulation was used to test the relationship between the variables and data collected was edited and coded. Coded information derived from the codebook was transferred to the coding sheet and analysed with the aid of computer for common themes. Data generated by this study was entered into SPSS worksheet and analysis was done using the SPSS computer software package (SPSS) version 20.

This was done in order test the relationship between certain selected variables in line with the objectives.

Data collected through in-depth interview were audio taped by a sound recorder. Datawas processed through listening to the recorder.It was also transcribed,translated from oral discourse to written discourse. Data was analysed in a thematic form.This was done by content analysing the data based on themes. The data was presented in a triangular form complementing the quantitative data. Findings was synthesisedto identify areas of convergence and divergence between data generated from both techniques.

3.8 Ethical Considerations

Ethical considerations entails doing a task in accordance with principles of conduct that are considered correct, especially those of a given profession or group. For this reason, a letter of introduction was produced by the Head of Sociology Department, Faculty of Social Sciences, Ahmadu Bello University, Zaria requesting permission and assistance from potential respondents and key Informants to enable the successful completion of the research field work.

Their voluntary consent was sought, to give detail information on the phenomena under study,research participants were guaranteed their confidentiality. all the questions asked was relevant to the research as no issue was be raised that could cause any excessive emotional outburst from the participants. Money or any incentive was not given to any of the participants for information. In the course of the research, no participant was harmed in any form and the choice of time and location was left at the discretion of the participants.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.0 Introduction

This chapter sets out to present and analyse responses sourced from the field survey and in-depth interview conducted. The study adopted the use of triangulation (mixed) method which involves the use of more than one form of data collection technique and that increases the validity of this study, as findings from the various data collection methods complement each other and reduce the bias of the researcher to the barest minimum.

The chapter consists of five (5) sections; each section focuses on the variables in the questions optioned under each objectives of the studyin frequency and cross tabulation format. The analysis and presentation of data obtaine from the field survey as well as the in-depth interview, is a means by which the research questions were answered and objectives of the study achieved.

4.1 Socio-Demographic Data

This section presents the socio-demographic characteristics of the respondents using two sets of tables. The first Table presents the Age, Religion, Level of Education and Occupation of the respondents, while the second table is on Level of Income of respondents, ethnic group, marital status and mother's category (expectant mother, nursing motherand experienced mothers).

Table 4.1.1: Age, Religion, level of education and Occupation of respondents

Age	Frequency	Percentage (%)
15-20	10	1.0
21-30	80	38.5
31-40	73	35.1
41 and above	43	20.7
No response	2	1.0
Total	**208**	**100**
Religion		
Christianity	109	52.4
Islam	98	47.1
Traditional	1	.5
Total	**208**	**100**
Level of education		
No education	9	4.3
Primary	19	9.1
Secondary	69	33.2
Tertiary	106	51.0
No response	5	2.4
Total	**208**	**100**
Occupation		
Trader	61	29.3
Public servant	66	31.7
Private employment	30	14.4
Not employed	51	24.5
Total	**208**	**100**

Table 4.1.1 is on the socio-demographic data of the respondents. Thepractice of exclusive breastfeeding varies across different age groups;therefore,women's age plays a significant role in projecting disparities onknowledge and practice. Respondent's distribution based on age shows that majority 38% are within age bracket of 21-30 years followed by 35% aged 31-40.Women within ages 21-30 and 31- 40 belong to the active child bearing age.This explains why they are the majority among other age groups.Findings from the IDI corroboratedthe survey data asone of the key informants.A practising nurse stated thus:

> Women's knowledge and practice of exclusive breastfeeding is not same among all ages, there are disparities in the level of knowledge between younger mothers and older mothers. I think younger women are more enlightened and exposed and consequently practice it more.

One of the key informants, a male care giver had a contrary view according to him:

> Younger women understand the benefits of exclusive breastfeeding more and are more open to trying but the challenge is that, most of them belong to the work force so even though they are more knowledgeable and enlightened to practice exclusive breastfeeding, their jobs limits them.

Religiousbackgrounds of the respondents were examined.This was done in other to find out awareness and practice rate among women of different religious groups. Data reveals that majority 52% of the respondents are Christians.Table 4.1.1 also reveals the educational qualifications of respondents.Findings showthat 51% of the respondents have attained tertiary education. This indicates that there is a good literacy level among the study population as majority, have completed their tertiary education. That may likely be as the result of the nature of the study area being an urban settlement.It is assumed that residents in cities have more interest in the pursuit of education and have more access to education than those in the rural areas which makes them more likely to possess good abilities to understand health education they receive during antenatal visits and other health promotion materials. Employment has been a significant factor that may hinder the practice of exclusive breastfeeding; therefore, analysis was made on the occupational status of the respondents.

Results from Table 4.1.1 also reveals that most of the respondents are employed and majority, 31% are public servants. It is plausible to think that people who are educated are more likely to secure employment than those with who are not educated.This explains why majority of the respondents are educated and also employed.

Table 4.1.2 below is a continuation of the socio-demographic data on respondent's level of income, ethnic group, marital status and mother's category.

Table 4.1.2 Respondent's Level of Income, Ethnic Group Marital Status and Category of Mothers

Level of income	**Frequency**	**Percentage**
Below 18,000	70	33.7
18,000-30,000	40	19.2
31,000-50,000	24	11.5
51,000 - 70,000	23	11.1
Above 70,000	23	11.1
No response	28	13.5
Total	**208**	**100**
Ethnic group		
Hausa	83	39.9
Yoruba	23	11.1
Igbo	14	6.7
Others	84	40.4
No response	4	1.9
Total	**208**	**100**
Marital status		
Single	10	4.8
Married	175	84.1
Divorced	5	2.4
Widowed	17	8.2
No response	1	.5
Total	**208**	**100**
Category of respondent		
Expectant mother	46	22.1
Lactating mother	75	36.1
Experienced mother	85	40.9
No response	2	1.0
Total	**208**	**100**

Table 4.1.2 shows respondent's distribution across various level of income. Result shows that majority 33% earnsbelow 18,000 naira monthly,followed by 19%, earning 18,000 to 30,000 naira. This is a clear indication that majority of the respondents are low income earners. Result from the qualitative data is in line with survey data as one of the male caregiversopined that:

> We have a lot of people surviving on very low income, many women and their husbands are struggling to survive, especially now that the country is experiencing economic recession. The truth is, you can only give what you have so telling a woman in such economic condition to practice exclusive breastfeeding is equivalent to asking her to give what she doesn't have. Access to three square meals is now a challenge to many, so exclusive breastfeeding is mostly difficult for the poor to practice because the woman does not have enough to give her child but a woman who earns well will also feed well and have enough in return to give her child.

One of the key informants, a nurse with one of the private hospitals in the metropolis had a contrary view, she stated thus:

> I think womenwith high income or those, whose husbands earn well,prefer to practice mixed feeding.Exclusivebreastfeeding is time demanding so it requires serious commitment and time;so,the rich mostly employ a nanny to cater for the baby. So even though they are aware of the benefits of exclusive breastfeeding, the fact that they do not have time, and can afford formula milk which is quite expensive, they prefer to introduce formula feeds earlier than six months but a poor woman can afford only the breast milk. So,I think the poor are more likely to breastfeed exclusively.

Findings from the survey and in-depth interview have shown that women's level of income or that of their partner is a determining factor in the ability or inability to breastfeed exclusively.Key informants had divergent views, as some believe that the practice of exclusive breastfeeding can be mostly found among the rich becausethey can afford to cater for themselves and their babies which makes them more likely tobreastfeedand the poor find it difficult to cater for themselves and their babies which makes the practice of exclusive breastfeeding less likely. On the other hand, some of the key informants stated that the poor are more likely to practice

because they cannot afford breast milk substitute which makes themdepend only on breast milk, and that makes them more likely to practice.

There is no consensus on the issue of economic status based on this argument, exclusive breastfeeding may or may not be practiced irrespective of level income. You could be rich andpractice, you could be poor and not practice or reverse can be the case.The Table also discloses the ethnic distribution of the respondents and it shows that majority 40% of the respondents belong to other tribes. These tribes are a combination of the numerous indigenous southern Kaduna tribes as well as other tribes from different states. This is as a result of theconcentration of commercial activities, government employment opportunities and infrastructure, bringing people from different tribes from all over the country.

Analysis on marital status of respondents shows that majority84% of the respondents are married. This is expected in a typical African society, such as Nigeria, where marriage comes before children. It is a norm for women with children to be married. Results in Table 4.1.2 also reveals the category of respondents who participated in the study and it shows that majority (40%) of the respondents are experienced mothers, followed by lactating mothers with 36%, while (24%) are expectant mothers.This indicates that women with childbirth experience participated more in the survey.

4.2 Women's Knowledge of Exclusive Breastfeeding

This section examines women's knowledge of exclusive breastfeeding in terms of awareness. Concepts involved are: period of breastfeeding initiation, recommended duration, sources of breastfeeding knowledge and benefits of exclusive breastfeeding.

Table 4.2.1 below shows respondent's knowledge of exclusive breastfeeding.

Table 4.2.1: Women's Knowledge of Exclusive Breastfeeding

Awareness of exclusive breastfeeding	Frequency	Percentage
Yes	199	95.7
No	9	4.3
Total	**208**	**100**

Table 4.2.1 indicates that a significant number, 199, which forms 96% of respondents are aware of exclusive breastfeeding and only 4% are unaware of exclusive breastfeeding. This implies thatmostcategories of women who participated in this study in terms of age, religion, level of education, level of income and occupationare aware of exclusive breastfeeding. Most of the key informants interviewed corroborates the survey data as they believed that majority of women in Kaduna metropolis are aware of exclusive breastfeeding. However, some of them are of the opinion that there exist disparities in the level of knowledge among older and younger mothers.

For instance, one of the experienced mothers interviewed recounted her experience:

> During my time there was nothing like exclusive breastfeeding. As far back as 1989 when I had my last delivery, women were not aware.Then,we fed our babies with breast milk, formula, and other cereals for babies. In fact, as early as two months we introduce water and other feeds. Back then, those who give only breast milk only were labelled poor thinking they cannot afford to buy baby food. But now a lot of women are opportune to know about exclusive breastfeeding.

One of themale care givers interviewed had a similar view

> The awareness rate has really improved particularly in Nigeria because there have been several means put in place to ensure that women are educated, especially pregnant women and nursing mothers. An average Nigerian woman, even the market woman knows about exclusive breastfeeding. But mothers who existed many years ago were not privilegedbecause back then, they didn't have that information.

Key informants were further askedwhether or not husbands, or men in general have knowledge of exclusive breastfeeding and one of the health care personnel, a medical doctor had this to say:

> I believe most men have the knowledge of exclusive breastfeeding because it is expected that their wives will inform them, after receiving the information from the hospitals during antenatal visits, but I cannot say for sure that all of them actually pass the message across to their husbands because we do not have close interaction with them especially in this part of the world where women hardly come for antenatal with their husbands.

One of the male care givers interviewed also said:

> Talking about awareness rate for men, I think it is on the average because, not all men know about it. Some got to know about it through their wives, and other relatives, others heard about it through the media such as radio, television magazines and so on. But thelevel of awareness is higher among the women than their male counterparts.

Findings from the survey data and the qualitative data have shown that most women in the metropolis have heard of exclusive breastfeeding. Key informants also added that men, as well are aware of exclusive breastfeeding, this indicates that, awareness rate in Kaduna metropolis is high.

Table 4.2.2:Breastfeeding Education

Received breastfeeding education	Frequency	Percentage
Yes	185	88.9
No	23	11.1
Total	**208**	**100**

Table 4.2.2 reveals that majority, 88% of the respondents have received breastfeeding education, while only 11% have not. This indicates that mothers in Kaduna metropolis have received education on breastfeeding. With regards to where they received their education, findings revealed thatmajority, 85% were educated breastfeeding in the hospital, 7% received breastfeeding education at home 1%, at work, 4%in school and 11% through the media, 1% were from other sources and .5% had no response. This indicates that hospitals are the major source of disseminating breastfeeding knowledge.The qualitative data agree with the findings from the survey data as one of the health care professionals interviewedstated that:

> Most women got to know about exclusive breastfeeding in the hospital during antenatal visits, that does not mean all women go for antenatal. I believe people who receive breastfeeding education during antenatal in the hospital are privileged to receive adequate information because; it is health professionals that dish out the information. People who got their information from other sources may not get the right information and more likely to practice it wrongly.

The statement above was supported by another health professional who stated that:

> Majority of the women in Kaduna metropolis especially pregnant women and lactating mothers heard about exclusive breastfeeding in the hospitalbecause, during their antenatal visits, they are taught on issues like family planning and hygiene so exclusive breastfeeding is no exception. There are women who do not go to the hospital when they are expecting.They allow traditional birth attendants to attend to them throughout their pregnancy. So, such women may not be privileged to hear about it and even if they do, they get half-baked information.

Table 4.2.3: Appropriate Period of Breastfeeding Initiation

Appropriate period of breastfeeding initiation	Frequency	Percentage
Within one hour of birth	115	55.3
After two hours of birth	30	14.4
After six hours of birth	38	18.3
When milk is ready	15	7.2
No response	19	4.8
Total	**208**	**100**

Health organizations recommend that breastfeeding should commence within one hour of birth.Therefore, women were asked of the appropriate period of breastfeeding initiation. Table 4.2.3 reveals that half of the respondents 55% said breastfeeding shouldcommence within one hour of birth. This clearly shows that most of the respondents have knowledge of the appropriate period of breastfeeding initiation.

Table 4.2.4 Recommended Duration ofExclusive Breastfeeding

Recommended duration	Frequency	percentage
0-2 months	5	2.4
3-4 months	11	5.3
0-6months	170	81.7
0-1year	13	6.3
Not applicable	9	4.3
Total	**208**	**100**

Table 4.2.4 shows women's responses on theduration of exclusive breastfeeding.It reveals that majority, 81%, saidexclusive breastfeeding should be done for the period of 0-6months.This implies that most of them have knowledge of the recommended duration of exclusive

breastfeeding.Results from the qualitative data agree with the quantitative data as one of the health care providers stated thus:

> Most people who have knowledge of exclusive breastfeeding also know about the recommended duration. It is expected that those who have knowledge of exclusive breastfeeding automatically know about the recommended duration. Because the six months' duration is actually what makes it exclusive aside the no water and other feeds rule. So, I strongly believe women and their husbands as well are aware of the six months recommended duration.

In addition to the above statement, another health personnel expressed his view on women's knowledge of recommended duration. According to him

> Women in Kaduna metropolis are aware of the recommended duration because it is one of the most important aspects of exclusive breastfeeding. We always tell women not to obey all the rules of exclusive breastfeeding only to stop half way. We emphasize on the need to breastfeed exclusively for six months. So, for those who are aware of exclusive breastfeeding, are expected to know about the recommended duration.

Whenprobed further on who benefits from exclusive breastfeeding,majority,61% (127)believed it is beneficial to both mother and child, 33% (70) said child alone, 3% (7) said the mother alone benefits from the practice of exclusive breastfeeding, while 1.9% (4) had no response

Table4.2.5 belowexamines women's knowledge of the benefits of exclusive breastfeeding. Response from this section is only for respondents who are aware of exclusive breastfeeding. Issues measured include: mother and infant bonding, infant's immune system, reduced infectious and chronic diseases, breast and ovarian cancer, cognitive development, intellectual capacity and child spacing.

Table 4.2.5: Women's Knowledge of the Benefits of Exclusive Breastfeeding

Benefits of exclusive of breastfeeding	S D	D	A	S A	Total
Breastfeeding increases mother-infant bonding.	9(4.5%)	4(2.0%)	87(43.7%)	99(49.7%)	199(100%)
Exclusively breastfed infants have stronger immune system than formula fed infants	3(1.5%)	12(6.0%)	85(42.7%)	99(49.7%)	199(100%)
Exclusively breastfed infants have reduced risk of infectious	3(1.5%)	11(5.5%)	97(48.7%)	88(44.2%)	199(100%)
Exclusively breastfed infants have reduced and chronic diseases	23(11.6%)	45(22.6%)	92(46.2%)	39(19.6%)	199(100%)
Mothers who breastfeed exclusively have lower risk of breast cancer	5(2.5%)	30(15.1%)	100(50.3)	64(32.2%)	199(100%)
Mothers who breastfeed exclusively have lower risk of ovarian cancers	9(4.5%)	21(10.6%)	111(55.8%)	58(29.1%)	199(100%)
Exclusively breastfed infants have higher cognitive development	5(2.5%)	44(22.1%)	85(42.7%)	65(32.7%)	199(100%)
Exclusively breastfed infants have higher Intellectual capacity	9(4.5%)	4(2.0%)	87(43.7%)	99(49.7%)	199(100%)
EBF reduces health care cost	2 (1.0%)	36(18.1%)	91(45.7%)	70(35.2%)	199(100%)
exclusive breastfeeding helps in child spacing	7(3.5%)	56(28.1%)	84(42.2%)	52(26.1%)	199(100%)

Table 4.2.5 shows respondent's knowledge of thebenefits of exclusive breastfeeding, findings reveal that majority, 93% agreed that breastfeeding increases mother and infant bonding while only 7% disagreed. Result also reveals that 92% of the respondents agreed that exclusive breastfeeding increases stronger immune system while only 8% disagreed. One of the health personnel said thus:

> The benefits of exclusive breastfeeding are quite numerous one of such benefits of exclusive breast feeding is that it improves the infant's immune system and protects the infant from diseases. It also promotes a healthy life that will enable the baby grow. There are antibodies contained in the breast milk that prevents illnesses while formula feeds do not have such advantage in terms of hygiene in the method of preparation, the quality of water which distorts the child intestine causing illnesses like diarrhoea.

Responses on reduced risk of infectious diseases as a benefit of exclusive breastfeeding shows that majority, 93%,agreed that exclusively breastfed infants have reduced risk of infectious diseases and 7% disagreed. 66% which constitute the majority agreed that exclusively breastfed infants have reduced rates ofdiseases and 34% disagreed.Findings also reveal that majorityagreed that mothers who breastfeed exclusively have reduced risk of breast and ovarian cancer with83% and 85% respectively, while others disagreed with 17% and 15%respectively. Analysis on cognitive development capacity as a benefit of exclusive breastfeeding shows that majority, 75% of the respondents agreed that exclusively breast-fed infants have higher cognitive development than their formula fed peers and 25% disagreed. Furthermore, 83% agreed that exclusive breastfeeding increases intellectual capacity while 7% did not. Results also reveal that 81% which forms the majority believe that exclusive breastfeeding reduces health care cost, while 19% disagreed. One of the key informants, a nurse, said:

> Aside from the health benefits, the practice of exclusive breastfeeding also has economic benefits in the sense that, you do not have to buy breast milk in the market, it is naturally made available. What is required of the mother is to eat right. The baby's illness rate is minimized and that will reduce spending on hospital treatments especially on illnesses like diarrhoea which is mostly caused by unclean water so women need to know that it is cheaper than buying formula.

A health personnel explained the following:

> Exclusive breastfeeding reduces health care cost in the sense that through its practice, the child's immune system becomes stronger and better and that child becomes protected from a lot of diseases especially childhood diseases like pneumonia, cholera, diarrhoea among others. In fact, the child will be automatically protected from contaminated foods and from unsafe method of preparation. Most women do not sterilize their feeding bottles and these things are harmful to the child so instead spending money and buying formula we encourage mothers to give the child breast milk which is cheaper and saves money from treating diseases.

Results in Table 4.5 shows respondent's views on exclusive breastfeeding as a form of contraceptives, majority, 68%, agreed,while 30%disagreed. This reveals that majority agree that exclusive breastfeeding helps in child spacing. One of the key informants said that: "*Exclusive breastfeeding is a good form of contraception, the hormone that stimulates breast milk formation prevents the hormone that causes ovulation from acting.In fact, some don't menstruate during exclusive breastfeeding."*

Results on respondent's knowledge of the benefits of exclusive breastfeeding reveals that women are knowledgeable on the health and economic benefits of the practice of exclusive breastfeeding.

4.3 Women's Attitude towards Exclusive Breastfeeding

This section examines women's attitude towards exclusive breastfeeding.Data was sourced from women who are aware of exclusive breastfeeding only this explains why the total respondents in this section are one hundred and ninety-nine(199). It deals with women's opinion on breastfeeding convenience, their attitude towards breastfeeding in public places, six months duration, infants possibility to survive on breast milk only for six months, their attitude

towardsgrowth rate of exclusively breastfed infants, intellectual advantage of exclusively breastfed babies, sexual desire and the use of local herbs on infants,

Table 4.3.1: Women's Attitude towards Exclusive Breastfeeding

Women's attitude towards exclusive breastfeeding	S D	D	A	SA	Total
Formula feeding is more convenient than breastfeeding.	51(25.2%)	97(48.7%)	37(18.6%)	14(7.0 %)	199(100%)
It is embarrassing to breastfeed in public places.	39(19.6%)	64(32.2%)	71(35.7%)	25(12.6%)	199(100%)
The infant can survive on breast milk only till six months of age	11(5.5%)	27(13.6%)	103(51.8%)	58(29.1%)	199(100%)
Recommended duration of six months is too lengthy.	31(15.4%)	68(33.8%)	58(28.9%)	42(20.9)	199(100%)
Exclusive breastfeeding decreases sexual desire and satisfaction.	46(23.1%)	89(44.7%)	53(26.6%)	11(5.5%)	199(100%)
There is no difference between the growth rate of an exclusively breastfed infant and formula fed infant.	56(28.1%)	64(32.2%)	65(32.7%)	14(7.0%)	199(100%)
Exclusively breastfed infants have more intellectual capacity than formula fed infants.	13(6.5%)	55(27.6%)	76(38.2%)	55(27.6%)	199(100)
Infants need locally made herbs to survive	80(40.2%)	76(38.2%)	34(17.1%)	9(4.5%)	199(100%)

Table 4.3.1 measures respondent's attitude towards exclusive breastfeeding.Finding shows that 74% disagreed that formula feeding is more convenient than breastfeeding, which indicates a favourable attitude. On the other hand, 26% had an unfavourable attitude. The in-depth interview agrees with the survey data asone of the male care givers explained that:

> A lot of women actually prefer to breast feed than to formula feed their babies because, breast milk is always ready for the baby to feed but formula feeds go through some stages of preparation which makes it more stressful. In as much as they want to breastfeed they might not have all the time to breast feed hence they begin to feed their babies with formula.

In the same vein, one of the medical doctors also shared a similar view:

> Mothers hardly prefer formula feeding to breastfeeding except for women who experience breastfeeding problems such as nipple pain, low milk supply, engorgement, among others. I think the only time they prefer to feed their babies with formula rather than breast milk, is when they think baby is ready to be weaned so they gradually introduce formula but some actually get tired of breastfeeding because it requires their constant attention and they cannot continue till they get to the recommended duration so prefer to feed their babies with formula.

Furthermore, one of the male care givers also had this to say:

> Not all women prefer formula feeding to breastfeeding for some who do, some of their reasons is that; constant breastfeeding brings too much pressure on the breast which makes the breast and body shape disfigured.Somego to the extent of employing a wet nurse although it is not too common in Nigeria but it happens in developed countries.

Table 4.3.1 also reveals that majority, 52%,disagreed to the statement that it is embarrassing to breastfeed in public places, which indicates a favourable attitude, while 48% agreed to the statement which implies an unfavourable attitude. Although, majority are comfortable with breastfeeding in public places, findings reveal that a reasonable proportion (48%) of women still see breastfeeding in public places as embarrassing. Such women will be less likely to practice exclusive breastfeeding as it requires breastfeeding on demand. Furthermore, findings on the attitude of women towards the possibility of an infant surviving on breast milk only till six months of age reveals that 81% of the respondentsagreed that an infant can survive on breast milk only till six months of age, therefore, have a favourable attitude, while 19% believed otherwise. This implies that, there is an agreement the possibility of infants thriving on breast milk only till six months in Kaduna metropolis.

World Health Organization recommended six months of exclusive breastfeeding because thebreast milk contains all the necessary energy and nutrients infants will need for the first six months of life.However, half (50%) the respondents are not comfortable with the duration

because they agreed that the six months recommended duration is too lengthy. Findings from the qualitative data agree with the survey data as one of the health personnel opined that:

> Most women complain that the six months duration is a long time for them to breastfeed exclusively some complain it is too stressful and demanding and therefore the months should be reduced. They are more comfortable with the two years recommended breastfeeding duration but are not so comfortablewith six months exclusive breastfeeding.

Furthermore, another health personnel shared a similar view:

> Exclusive breastfeeding requires feeding on demand. It means you breast feed the child whenever he or she demands it. Because of that, nursing mothers have to wake up several times at night to breastfeed.So, a lot of nursing mothers complain of reduced hours of sleep which makes the six months duration more difficult to achieve that is why some of them complain of the six months duration.

Table 4.3.1 reveals that women's attitude on the issue of reduced sexual desireand satisfaction as a result of thepractice of exclusive breastfeeding. Results show that 68% disagreed, hence have favourable attitude,while 32% agreed to the statement which indicates an unfavourable attitude. Findings from the qualitative data corroborate with the survey data as one of the health care professionals said:

> There is no scientific evidence that support the claim of decrease in sexual desire and satisfaction due to exclusive breastfeeding.What is a known fact is that mother's attention and time is shifted to the child at the detriment of the husbands and often times husbands feel neglected. So, most men complain of the long duration of breastfeeding because it reduces time shared between them and their wives.

Results on respondent's attitude towards differences between growth rate of an exclusively breastfed infant and formula fed show that 60%disagreed that there is no difference in thegrowth rate of an exclusively breastfed infant, hence a favourable attitude,while the remaining 40% agreed,hence an unfavourable attitude. This is a clear indication that most of the respondents

believe that exclusively breastfed infantincreased growth rate thantheir formula fed peers.One of the health personnel who is a nurse had a contrary view he said:

> Well, it depends you can measure growth in different ways either in height or in a weight. Actually, who are fed with complementary feeds before six months tend to be weightier than exclusively breastfed infants that is because of the excess carbohydrate they get from them. But an exclusively breastfed infant does not gain so much weight like a formula fed. Exclusive breastfeeding actually accelerates weight and length gain that is healthy for the baby because nutrients are gotten in the right proportion.

Findings also reveal that 66% had a favourable attitude towards exclusive breastfeeding because they agreed that exclusively breastfed infants have more intellectual capacity than their formula fed peers while 34% disagreed. One of the male care givershad a contrary view he said thus:

> I do not think exclusively breastfed infants are more intelligent than others because we have a lot of intelligent people in our society today that were not breastfed exclusively and they turned out well. They are people we look up to as role models and leaders but during their time as infants there was nothing like exclusive breastfeeding.

The views of a medical doctor agree with the findings. He had this to say:

> Of course, exclusive breastfed babies grow to be more intelligent. Research has shown that exclusive breastfeeding enhances brain development and learning readiness. Some mothers who practiced exclusive breastfeeding come back to say that they have noticed the differences between their children who were not exclusively breastfed and the ones that were breastfed exclusively breastfed, in terms of intelligence.

Finally results on Table 4.3.1 shows that majority, 78%, the respondents do not believe an infant need locally made herbs to survive.Findings from the qualitative data on women's attitude shows that women with unfavourable attitudes still exist in the metropolis, for instance, an experienced mother said thus:

> Women's attitude towards breastfeeding is really not encouraging. There are categories of women who believe Nigeria's economy will not permit them to sit at home to breastfeed exclusively, they need to work to make ends meet. Some believe exclusive breastfeeding will make their breast fall, so they prefer to introduce other foods at an earlier age so I think there are more of negative attitude than positive.

Another respondent who is a nurse argued that:

> Some might have genuine reasons why they aren't able to practice exclusive breastfeeding others just feel it is too stressful and too demanding some even complain of waking up several times to breastfeed, some feel the baby is suckling too much and is making them lose weight and making their breast deformed or loose shape and some of them say they observed that the breast milk is not enough, it is not true it is simply because the baby is requesting for breast milk frequently so they introduced complimentary foods as early as one month or three. So I think the practice is fair some women stay faithful to it till six months while others stop after maternity leave.

4.4 Women's Breastfeeding Practices

This section dwells on women's practice of exclusive breastfeeding; it identifies women's behaviour and practice in terms of intentions and decisions, method of infant feeding practiced, influence of breastfeeding decision and practice, age of weaning, time of introduction of complementary foods, and reasons for introduction of complementary foods.

Table 4.4.1: Methodof Infant Feeding Practiced

Method of Infant feeding practiced	Frequency	Percentage
Mixed feeding	95	45.7
Predominant feeding	25	12.0
Exclusive breastfeeding	72	34.6
Formula feeding	16	7.7
Total	**208**	**100**

Table 4.4.1 is onrespondents on the method of infant feedingpracticed.Result shows that majority, 46%, of the respondentspracticed or intend tomix feeding while only 32% practiced

or intend to practice exclusive breastfeeding. This implies that, despite the high knowledge, the practice of mixed feeding is higher than exclusive breastfeeding.Findings from the IDI corroborates the survey data as most of the key informants believe the practice of mixed feeding is found more among women than exclusive breastfeeding. For instance, one of the male care givers had this to say:

> From what I have observed, most women do not practice exclusive breastfeeding, some start but stop along the way. On a scale of 1 to 10, I will rate 5. Although many of them have knowledge of exclusive breastfeeding because I believe they must have heard about it during their antenatal visit but it does not guarantee that they will practice it till six months.

In the same vein, one of the health personnel had similar views:

> Well I think like (40%) of women in Kaduna metropolis actually comply to exclusive breastfeeding from 0- 6 months. Most of the women in Kaduna metropolis actually start exclusive breastfeeding but stop along the way without completing the six months.

A medical doctor interviewed on the practice rate of exclusive breastfeeding said:

> The compliance rate of exclusive breastfeeding in Kaduna metropolis is fair, it is not entirely satisfactory because we still have women who find it very difficult to comply due to one reason or the other but I must say we have made progress. Women are responding better than before although we have not really reached our desired goal but it is getting better.

From the finding, it can be deduced that the practice of exclusive breastfeeding among women in Kaduna metropolis is not satisfactory. Although, the practice of exclusive breastfeeding has improved over time.There isa need for improvement because other forms of feeding are still prevalent in Kaduna metropolis despite the increased knowledge.

Table 4.4.2: Liquids Introduced Before Breastfeeding Initiation

Liquids given before breastfeeding initiation	Frequency	percentage
Medicine	35	16.8
Glucose water	60	28.8
Formula milk	17	8.2
Water	4	1.9
None	92	44.2
Total	**208**	**100**

Table 4.4.2 above discloses whether or not liquids were given to the babies before breastfeeding initiation. Results reveal that majority, 44%, did not introduce other fluids before breastfeeding initiation. It is worthy to note that exclusive breastfeeding allows medicines, vitamins and oral rehydration salts.So, for respondents who gave such are not outside the standards of exclusive breastfeeding. Respondents who initiated other fluids before breastfeeding initiations were further asked why they did so and majority,26%(55) complained of delayed milk supply, 12% (25) said mother was ill, 11% (24) said baby was ill and 5.8% (12) had other reasons This indicates that most of the respondents who gave other liquids before breastfeeding initiation had delayed milk production.

Health personnel were asked the reasons some women introduce other fluids before breastfeeding initiation. A medical doctor responded by saying:

> There are cases where certain birth practices and medical conditions delay milk from arriving but it is very unlikely that there is no breast milk at all because colostrum is meant to be ready before the baby is born. So, women who had traumatic or stressful delivery or women who gave birth through caesarean section are more likely to have delayed lactation. In such cases the mother needs to find an alternative which makes the practice of exclusive breastfeeding impossible.

Another health personnel agreed with the previous comment:

> The problem of delayed milk production can be a medical condition and can also be as a as aresult of poor breastfeeding management. That is why we recommend babies to be breastfed within one hour of birth once you delay the process of breastfeeding initiation and breast milk is not given to the child early enough the production of breast milk begins to shut down and that automatically makes exclusive breastfeeding difficult

Survey data has clearly shown that respondents who introduced other fluids before breastfeeding initiation did so as a result of delayed breast milk production.Findings from the IDI conducted clearly revealed that lack of proper care during pregnancy results in birth complication which affects the production of milk.Poor breastfeeding practices also affects milk production.Therefore, to ensure successful exclusive breastfeeding practice, proper care and attention needs to be given right from the period of pregnancy.That way the chances of practicing exclusive breastfeeding successfully will be increased.

4.4.3: Age of Introduction of Complementary Foods.

Age of introduction of complementary foods	**Frequency**	**Percentage**
First month	29	13.9
Second month	25	12.0
Third month	60	28.8
Four months	2	1.0
Five months	32	15.4
Six months	56	26.9
No response	4	1.9
Total	208	100

Table 4.4.3 reveals women's response to age of introduction of other fluids.It discloses that majority of the respondents, 28%, introduce other fluids to the baby at the third month,while trying to practice exclusive breastfeeding. Majority could not meet upwith the six months recommended duration.The in-depth interview conducted is in line with the survey data.One of the key informants had this to say:

> I have seen many women who actually start exclusive breast feeding, butfor numerous reasons stop at three months, some four months, some even two months.You find out that as early as three months they start giving the baby milk and other baby food and the funny thing is that all of them will sayyes, they did exclusive breastfeedingfor three months.

Similarly, one of the health care personnel also stated:

> The challenge most women are having is the ability to complete the six months'duration.Most women actually start but stop before six months. They give several reasons why they were not able continue to the end. So yes, they start breastfeeding exclusively but then they do not complete it and that automatically makes it mixed feeding and not exclusive because exclusive requires six months with no alternative food.

Findings from both quantitative and qualitative data have revealed that some mothers, due to some reasons,introduced other fluids earlier than the six months' duration, which means a lot of women are finding the six months' duration difficult and, as a result, hinders a successful practice of exclusive breastfeeding.

Respondents were further probed on reasons for introducing other fluids at the time they did findings revealed thatmajority 51% (107) introduced other fluids at the time.They did because they were busy with employment or school, 21% (44) felt baby was old enough, 14% (30) said age was recommended by relatives, 5% (12) felt baby was hungry (12), 3% (7) said it was a result of low milk supply, 1% (2) had difficulty in breastfeeding, while 1% (3) said baby was

thirsty.Findings from the in-depth interview reveal other reasons for early introduction of fluids/complementary foods, for instance, one of the health care professionalssaid thus:

> One of the rules of exclusive breastfeeding is that mothers should feed their babies on demand and there should not be any form of pacifier. Most mothers give excuses that they cannot cope; some complained the child is growing so his demand for food is more frequent than when the child was much younger so they introduce other feeds. In fact, I have met mothers that complained of weight gain the reason is the child is making them eat more because the child is growing and demanding more. Other women complain they have to resume work; some even say the child is not growing well so they introduce formula to enhance growth.

Similarly, a medical doctor interviewed also stated:

> I think most women especially 'career women', complain that after the three months maternity leave they stop exclusive breastfeeding because they have to resume work and cannot breastfeed on demand. They also complain they do not have crèche facilities at their place of work so they introduce other feeds to the baby at that time. But for full time house wives, some of them practice it successfully although there some mothers that are available but still complain that it is too stressful or too demanding so they introduce other feeds early.

In addition, one of the male care givers had a different view:

> In many cases it is no fault of the women for introducing other fluids earlier than 6 months. Some of them do not have sufficient breast milk in fact my wife falls into that category so we had to look for alternative foods. Some battle with some challenges they cannot control so exclusive breastfeeding might not even be an option in the first place.

Findings from the survey data show that most women who introduced other foodatthe time they did,because they had to resume work or school. On the other hand, the qualitative data revealed other reasons for early introduction of complimentary foods. For some mothers, it is simply because they cannot cope with the long duration of six months and they find it stressful demanding and difficult while others need to resume work.

Table 4.4.4: Breastfeeding Duration

Breastfeeding duration	Frequency	Percentage
0-3 months	7	3.4
4-5months	16	7.7
6months to 1year	76	36.5
Above 1 year	107	51.4
No response	2	1.0
Total	**208**	**100**

Table 4.4.4 Reveals that Majority, 51%,of the respondent's breastfed or intend to breastfeed for more than a year, while only 3% breastfed or intend to breastfeed for 0-3 months. This implies that majority of the respondent comply with the recommended duration of breastfeeding for two years. When asked on who influences mother's decision on the kind of infant feeding method to adopt, majority, 42% (88), of respondents said their decision on the type of infant feeding to practice was mostly influenced by health care professionals, 32%(68) said it was their decision, 11% (23%)said it was the baby's father, while 12% (25) said it was family and relatives and 1.9% (4) had no response.When probed on whether or not they experienced breastfeeding problems, majority,57% said that theyhad problems in breastfeeding, while 43% have not.

Table 4.4.5: Breastfeeding Problems experienced

Breastfeeding problems Experienced	Frequency	Percentage
Nipple pain	45	37.8
Breast pain	33	27.7
Engorgement	36	30.3
Others	5	4.2
None	89	42.8

Total	**208**	**100**

Table 4.4.5 reveals that among those who hadexperienced breastfeeding problems, majority 37% experienced breast pain followed by breast engorgement with 30%. Consequently, respondents who have experienced breastfeeding problems are likely not to comply with exclusive breastfeeding than those who did not encounter difficulties in breastfeeding.

Findings from the in-depth interview agreewith the survey data as one of the health personnel opined that:

> There are women who experience difficulty in breastfeeding as a result of breast engorgement breast pain and so on. Women with such problems find it very hard to breastfeed let alone to breastfeed exclusively that is because the whole process of breastfeeding is painful for them and that discourages them from breastfeeding exclusively. Although at the beginning of breastfeeding most women feel a mild pain or discomfort which is considered as normal but when it persists then it is a problem. Some of these problems is as a result of infection while some is a as result of improper positioning.

Analysis was done to find out whom mothers consult whenever they experience breastfeeding problems, findings reveals that majority, 61% (122) reach out more to health care providers when faced with breastfeeding problems, 16% (32) consult their partners, 14% (28) consult their mothers, while only 8% (16) reach out to their relatives. Although,it is common knowledge that significant others are mostly the first to know when ever their loved one is ill or to know the state of health of their loved one, in some cases, some health problems are tackled from home through the help of significant others and not all health cases actually get to the attention of the health care professionals.

4.5 Factors Influencing the Non-Practice of Exclusive Breastfeeding

In this section, an attempt was made to discuss factors influencing the practice and non-practice of exclusive breastfeeding, data was sourced from the total of 199 respondents who are aware or have knowledge of exclusive breastfeeding. The concepts used in measuring support are: spouse support, workplace support, employment, social cultural beliefs and practices, maternal perception, maternal education, and nutritional status and medical condition of women and infants.

Table 4.5.1 Factors Influencing the Non-Practice of Exclusive Breastfeeding

Factors influencing non-practice of exclusive breastfeeding	S D	D	A	S A	Total
Lack of support from spouse discourage the practice of EBF	16(8.0%)	43(21.6%)	77(38.7%)	63(31.7%)	199(100%)
Lack of support from relatives discourage the practice of EBF	19(9.5%)	42(21.1%)	70(35.2%)	68(32.7%)	199(100%)
Employed mothers find it difficult to practice EBF	11(5.5%)	28(14.1%)	95(47.7%)	65(32.7%)	199(100%)
lack of support from co-workers at work place hinders the practice of EBF	21(10.6%)	37(18.6%)	100(50.3%)	41(20.6%)	199(100%)
lack of support from management at work place hinders the practice of EBF	11(5.5%)	28(14.1%)	95(47.7%)	65(32.7%)	199(100%)
socio-cultural beliefs do not affect the practice of EBF	30(15.1%)	70(35.2%)	64(32.2%)	35(17.6%)	199(100%)
cultural practices affect the practice of socio-cultural EBF	20(10.1%)	42(21.1%)	88(44.2%)	49(24.6%)	199(100%)
perception of the insufficiency of breast milk discourages the practice of EBF	16(8.0%)	42(20.7%)	103(51.8%)	38(191%)	199(100%)
lack of maternal Education predisposes mothers not to breastfeed exclusively	23(11.6%)	45(22.6%)	92(46.2%)	39(19.6%)	199(100%)
Nutritional status of mothers determines the possibility to practice EBF	9(4.5%)	21(10.6%)	111(55.8%)	58(29.1%)	199(100%)
mothers/child medical condition can hinder the practice of EBF	29(14.6%)	64(32.1%)	66(33.2%)	40(20.1%)	199(100%)

Table 4.5 is on the factors influencing the practice and non-practice of exclusive breastfeeding, results shows that majority, 70%, of the respondents agreed that lack of support from spouse discourages the practice of exclusive breastfeeding, while 30% disagreed. Data further reveals that 70% agreed that lack of support from relatives hinders the practice of EBF while 30% disagreed.This implies that women depend on their spouse and close relatives for support to enable them feed their babies exclusively. Findings from the in-depth interview were in line with the survey data asone of the key informants had this to say:

> I think support from the relatives is a two-way thing because their influence could be positive or negative, so for a mother whose closest kin have practiced exclusive breastfeeding and have seen the benefits, they will support her to do it, but mothers whose relative have a negative perception on exclusive breast feeding they will discourage the mother from practicing. For example, where a close relative complain thatexclusively breastfed infants have difficulty in adjusting to other meals when introduced, they might discourage others in the family not to practice because, they feel it makes babies not to adjust and eat well.

Similarly, one of the experienced mothers agreed with the previous informant:

> On this issue of support, I think it depends; it could be that the mother might be supported to do the right thing or the wrong thing. In a typical Nigerian society after a mother gives birth, the baby's grandmother comes to cater for both the mother and the child and because of their experience in child care no one questions their methods. So, yes, the family members are coming to support, but they mostly come with cultural ways of childcare that most times do not conform to the rules of exclusive breastfeeding.

A male care giver added:

> Support from the spouse goes a long way in motivating the practice of exclusive breastfeeding.Women need to feed well while breastfeeding so husbands are expected to provide and also lend a helping hand to their wives to cater for the child but unfortunately some men see that as the woman's business.

It can be concluded that support is a strong tool of motivation especially from husbands and close relatives but then, support can be in a negative or positive form. Relatives who approve of exclusive breastfeeding will, of course, support the mothers and relatives who do not approve will support otherwise.

Analysis on employment as a factor influencing the practice of exclusive breastfeeding shows that, 80% of the respondents agreed that employment hinders the practice of exclusive breastfeeding, while the remaining 20% disagreed. One of the experienced mothers had this to say:

> Most working mothers need to resume work after three months and that is for those in the public sector, but those in the private sector need to resume earlier than that. We are in an economy where you need to work to survive.So, families who are not buoyant enough for mothers to stay home need the mother to work. Hence, working mothers find it difficult to express enough quantity of milk that will be sufficient for the child until they are back.

A medical doctor also had similar views:

> Mothers who are employed are expected to resume after maternity leave, and it mostly last for about three months so most mothers stop exclusive breastfeeding at the third month, because they do not have time to breastfeed on demand as they should.

Results on Table 4.5 also reveals that 71% of the respondents agreed that lack of support from co-workers at work place hinders the practice of exclusive breastfeeding, while 29% disagreed. It also discloses that majority, 80%, agreed that lack of support from management at work place hinders the practice of EBF while 20% disagreed. This implies that working mothers who do not get support from colleagues and management experience difficulties in breastfeeding exclusively. Theresult also shows that 50% of the respondents disagreed that socio-cultural beliefs a factor, does not affect the practice of exclusive breastfeeding, while the other half agreed. Findings further revealed that 69% agreed that cultural practices affect the practice of EBF, while 31% disagreed. Results from the IDI agree with the survey data as one of the experienced mothers interviewed said:

> Some cultures believe the child should be given water from the village, which makes him son of the soil and in some other culture; the child is given herbs because they believe it will immunize the child from ailments.

A health care professional was interviewed and he stated the following:

> I have seen many cases where the nursing mother wants to practice exclusive breastfeeding but her mother, the husband's mother or both of them kick against it saying she is starving the babyor the baby is dehydrated. So, most times the mothers are helpless especially when complains are coming from their mother in-law and since they do not want problems they succumb. In fact, in some cultures breast milk is not the first thing the baby is being fed with, some are fed with honey, and some date fruit. I have also seen cases where some women consult traditionalist especially those that have previously lost a child while they were infants, they are told that they have bad milk and should not breastfeed any other child meanwhile those deaths might be caused by a different medical condition, and this is common among the uneducated women.

Another key informant, a male care giver also had this to say:

> I strongly believe culture plays a part in hindering the practice of exclusive breastfeeding, there is this belief in some tribes that when a child is born, that child needs to be welcomed with ordinary water so such a culture is already against exclusive breastfeeding.

Findings gathered that culture, one way or another, plays a role in discouraging the practice of exclusivebreastfeeding as there are some cultural practices on infant feeding that contradict the rules of exclusive breastfeeding.So, individuals who belong to such cultures will be discouraged to practice.Table 4.5 also disclosesthat majority, 71%,agreed that mother's perception of insufficiency of breast milk discourages the practice of exclusive breastfeeding, while 29% disagreed. A medical doctor interviewed argued that:

> Scientifically, before breast milk can be produced, the baby has to suckle so the more the babies suckle, the more the production of milk. Women have that misconception of insufficiency of breast milk because they do not breastfeed on demand and in some cases insufficiency of breast milk is as a result of mother's nutrition. she may not have adequate nutrients that are important for breast milk formation so even if the hormone and the stimulus is there the things the body need to produce the breast milk is not

supplied from her. In some cases, formula is recommended after exhausting all possible causes and means of enhancing milk production.

The table also revealed that majority, 66%,of the respondents agreed that lack of maternal education predisposes mothers not breastfeed exclusively. In buttressing this point one of the health care personnel said:

> Older mothers do not practice exclusive breastfeeding because they are not as enlightened as the younger ones, so mothers who are educated will know the benefits of exclusive breastfeeding and that will help in making choices for the kind of feeding to adopt. Uneducated women find it difficult to believe that breast milk contains all the nutrients the child needs to grow and that is because they are not educated enough to understand. Such women even after attending antenatal do not really comprehend but educated women understand better.

One of the experienced mothers had a different view she stated:

> Well, I can't really say that educated mothers practice exclusive breastfeeding more because it is actually the educated ones are mostly career women. Though they understand the benefits of exclusive breastfeeding more because they are educated, they are the ones more faced with the challenge of resuming work so I think it is 50/50.Uneducated ones are sometimes unemployed and have more time to practice exclusive breastfeeding but donot really take it seriously because they do not fully understand.

Findings from quantitative and qualitative data have shown that maternal education plays a role in the practice of exclusive because educated women can easily relate to the idea of exclusive breastfeeding as a result of the knowledge they have acquired and their exposure as individuals. It is also expected that women who are more educated and enlightened do not hold on to cultural practices like the unexposed and uneducated ones as a result, are more likely to practice exclusive breastfeeding.

Findings on nutritional status and mother/child medical condition as a determining factor in practicing exclusive breastfeeding shows thatmajority(85%) of the respondents agreed that nutritional status of mother influences decision to breastfeed exclusively and majority, 53%

agreed that mother/child medical condition can hinder the practice of EBF, while 47 disagreed.One of the key informants, a medical doctor, had this to say:

> Instances where the baby was delivered through caesarean section as a result of maybe maternal exhaustion, the baby becomes distress and has difficulty in breathing, in such a case we are more interested in the baby's survival and feeding the baby may worsen the situation. So in such casesexclusive breastfeeding is no longer practicable. There are cases where the baby was born and is doing fine but the mother becomes really sick and might not to be able to breastfeed. There are also cases where the breast is infected, some women nipple does not have pores (holes) where breast milk will be drained from. So, all these health reason hinder the practice.

Findings from the quantitative and qualitative data both agreed that women and infants with some cases of ill health experience difficulty in breastfeeding and that hinders the practice.Therefore, the state of health of both the mother and child determines the practice of exclusive breastfeeding.

Table4.6: Possible ways to Improve the practice of exclusive breastfeeding

Suggestions	**Responses**	
	N	**Percentage**
Education	119	15.6%
ensure positive influence from significant others	83	10.9%
ensure maternal nutrition	78	10.2%
ensure maternal health	104	13.7%
provide jobs for women	77	10.1%
improve standard of living	62	8.1%
initiate reward and incentive to promote practice	50	6.6%
extension of maternity leave to six months	110	14.5%
provide crèche facilities at the work	78	10.2%
Total	**761**	**100.0%**

Table 4.7present suggestionson ways to motivate the practice of exclusive breastfeeding. The resultshowsthat 16% of the respondents suggested that more should be done in educating the massesthrough other mediums instead of relying solely on antenatal counselling.That way, other members of the society will be enlightened. Also, 15% suggested extension of maternity leave to six months in order to encourage mothers especially those in the workforce to practice.Furthermore, 14% of the respondents suggested that mothers should maintain good health in order to have successful deliveries and a healthy breastfeeding experience.Key informants had different suggestions on ways to motivate the practice of exclusive breastfeeding. One of the key informants, who is anurse, said:

> There are women who still patronize traditional birth attendants and give birth at home.Efforts should be made in educating the traditional birth attendants since we have not been able to eradicate them from the health system and they have access to women who do not go to the hospital for antenatal care. Also, the masses need to be educated through outreaches.Also, hospital services are not as free as the government make people believe, in fact women are given a long list of items to buy and even after buying most of the items are not used or returned to the mother. Women who are poor prefer to patronize traditional birth attendants because they are cheaper and have records of successful deliveries, so they can pay by instalments or with food items.

In addition, one of the male caregivers said thus:

> I think both the father and mother should be invited to the hospital to receive proper information on how to care for the child because I believe that are some information that women keep to themselves so men have little information about exclusive breastfeeding. I am sure if they are involved they will support their wives to adhere to the rules.

Similarly, one of the health personnel also had this to say:

> Men should be encouraged to attend antenatal counselling with their wives so that they can get first-hand information from health professionals, that way they will understand the benefit and support their wives to practice it if possible insist it is done for their children.

Another key informant, a nurse suggested that: "*Exclusive breastfeeding should be taught in schools even in secondary schools if sex education is taught in secondary schools then it is not out of place to teach exclusive breastfeeding".*

A medical doctor suggested that:

> More support should be given to women who are working, because a lot of working mothers desire to breastfeed exclusively but are not given the time freedom to do that. Care centres should be established not far from their places of work, so that nursing mothers can breastfeed the child and return back to work. Also, elderly women in the household like grandmothers and mother in-laws should accompany the women during antenatal and postnatal visits to the hospitals since they are care givers to nursing mothers. They also should know what is expected, community health extension workers at the different levels of government need to intensify their effort in disseminating this information especially to women who do not come to the hospital regularly.

An experienced mother also suggested thus:

> Mothers find it difficult to express milk due to poor electricity supply. Sometimes we can go days without seeing light and we all know that expressed breast milk needs to be refrigerated. electricity distribution companies need to ensure constant power supply so that working mothers who cannot carry their babies along to work can express milk for their babies that way exclusive breastfeeding practice will be less stressful.

Findings have shown and identified several ways in which the practice of exclusive breastfeeding can be improved in Kaduna metropolis. Therefore, it is not only the duties of health professionals to motivate the practice of exclusive, but that of all individuals. Government, husbands, mother in laws, grandmothers and other relatives each playing their role to support and motivate the practice of exclusive breastfeeding.

Table 4.7 A Summary of Respondent's Attitude towards Exclusive Breastfeeding

Attitude of respondents	Frequency	Percentage
Unfavourable	77	37.2
Favourable	122	58.9
Total	**199**	**100**

Table 4.7reveals respondent's attitudes towards exclusive breastfeeding. Majority, 58%, of the respondents had a favourable attitude towards exclusive breastfeeding, while 37% had unfavourable attitude. This implies that women in Kaduna metropolis have a positive attitude towards exclusive breastfeeding.

4.8Cross Tabulation on Socio Demographic Data and Practice of Exclusive Breastfeeding

This section examines the association between the socio-demographic data of respondents in relation to practice of exclusive breastfeeding. This is done in order to determine whether the association between the variables exist.

Table 4.8.1:Relationship between Age of Respondents and the Practice of Exclusive Breastfeeding

Age	Practice		Total
	Yes	No	
15-20	1(.4%)	9(6.6%)	10(4.8%)
21-30	26(36.1%)	54(39.7%)	80(38.5%)
31-40	31(43.1%)	42(30.9%)	73(35.1%)
41 and above	14 (19.4%)	29((21.3%)	43(20.7%)
No response	0(0.0%)	2 (1.5%)	2(1.0%)
Total	72(100%)	136(100%)	208(100%)

Results from table 4.8.1 indicate that the practice of exclusive breastfeeding varies across different age group. It shows that the practice of exclusive breastfeeding is high among women between the age group of 31 to 40 and 21 to 30; this is recorded with 43% and 36% respectively. This indicates the practice of exclusive breastfeeding is low among adolescent mothers and older mothers.

Table 4.8.2: Relationshipbetween respondent's Level of Education and the Practice of Exclusive Breastfeeding.

Level of education	Practice		Total
	Yes	No	
No Education	0(0.0%)	9 (6.6%)	9(4.3%)
Primary	4(5.6%)	15(11.0%)	19(9.1%)
Secondary	16(22.2%)	53(39.0%)	69(33.2%)
Tertiary	51(70.8%)	55(40.4%)	106(51.0%)
No Response	1(1.4%)	4(2.9%)	5(2.4%)
Total	72(100%)	136(100%)	208(100%)

Table 4.8.2 above reveals that women with tertiary education practice exclusive breastfeeding more,followed by women with secondary education. This is recorded with 70% and 22% respectively.This indicates that level of education has influence on the practice of exclusive breastfeeding, as women with higher education practice exclusive breastfeeding more than those with lower education.

Table 4.8.3: Relationshipbetween Respondent's Occupation and the Practice of Exclusive Breastfeeding.

Occupation	Practice		Total
	Yes	No	
Trader	16(22.2%)	45(33.1%)	61(29.3%)

Public servant	25(34.7%)	41(30.1%)	66(31.7%)
Private employment	9(12.5%)	21(15.4%)	30(14.4%)
Not employed	22(30.6%)	29(21.3%)	51(25.6%)
Total	72(100%)	136(100%)	208(100%)

Table 4.8.3 above indicates that the practice of exclusive breastfeeding varies across various occupations. Result reveals that the practice of exclusive is higher among public servants and unemployed mothers with 34% and 30% respectively. This is expected because it is believed that private employees are more engaged than public servants and, therefore, have more time to breastfeed exclusively and women who are unemployed spend more time with their babies, hence, have more time to breastfeed exclusively.

Table 4.8.4: Relationship between Respondent's Level of Income and the Practice of Exclusive Breastfeeding.

Level of income	**Practice**		**Total**
	Yes	No	
Below 18,000	23(31.9%)	47(34.6%)	70(33.7%)
18,000-30,000	10(13.9%)	30(22.1%)	40(19.2%)
31,000-50,00	12(16.7%))	12(8.8%)	24(11.5%)
51,000-70,000	8(11.1%)	15(11.0%)	23(11.1%)
Above70,00	7(9.7%)	16(11.8%)	23(11.1%)
No response	12(5.8%)	16(7.7%)	28(13.5%)
Total	**72(100%)**	**127(100%)**	**208(100%)**

Table 4.8.4 reveals that the practice of exclusive breastfeeding is found more among low income earners as majority (31%) of those who practiced exclusive breastfeeding are earning below 18,000.It can be concluded that low income earners are less likely to afford breastmilk substitutes, which makes them more likely to depend on breastmilk only. This explains why they practice exclusive breastfeeding more than high income earners.

4.8.5 Cross Tabulations on Knowledge and Attitude towards Exclusive Breastfeeding and Knowledge and Practice of Exclusive Breastfeeding

This section examines the relationship between respondent's knowledge of exclusive breastfeeding and their attitude towards it.It also examines relationship between attitude and practice in other to show whether the two variables are related.

Table 4.8.6Relationshipbetween Respondent's Knowledge of Exclusive and Attitude towards Exclusive Breastfeeding.

Knowledge	Attitude		Total
	Unfavourable	Favourable	
Yes	77(89.5%)	122(100%)	199(95.7%)
No	9(10.5%)	0(0.0%)	9(4.3%)
Total	86(100%)	122(100%)	208(100)

Table 4.8.6 reveals that at the df of 1 and the alpha level of 0.05, the calculated x^2value of 13.345is greater than the table x^2 of 3.841.This shows that there is a relationship betweenrespondent's knowledge of exclusive breastfeeding and their attitude towards exclusive breastfeeding. Therefore, the null hypothesis is hereby rejected.Using phi coefficient to further measure the strength of relationship, results reveal the value of 0.25. This means there is a negligible relationship between knowledge and attitude towards exclusive breastfeeding. Thisimplies that knowledge has very little impact on attitude. Although, it is expected that knowledge should translate into favourable attitude.Findings of this study report otherwise. As such, factors such as employment, income,support from significant others,hinders the practice.These factorstranslaterespondent's attitude into unfavourable as some women see exclusive breastfeeding as good, yet believe it is difficult to practice.

Table 4.8.7Relationship between Respondent's Knowledge and Practice of Exclusive Breastfeeding.

Knowledge	Practice of EBF		Total
	Yes	No	
Yes	72(100%)	127(93.4%)	199(95.7%)
No	0(0.0%)	9(6.6%)	9(4.3%)
Total	72(100%)	136(100%)	208(100)

Table 4.8.7 reveals that at the df of 1 and the alpha level of 0.05, the calculated x^2value of 4.980 is greater than the table x^2 of 3. 841.This shows that there is a relationship between respondent's knowledge of exclusive breast feeding and practice of exclusive breastfeeding. Therefore, the alternate hypothesis is here by accepted.

Using phi coefficient to further measure the strength of relationship, results reveal the value of 0.15.This indicates a low positive association between knowledge and practice of exclusive breastfeeding which indicates that practice is not entirely dependent on knowledge. Therefore, it can be said thatInformation is a necessary but insufficient condition for behaviour change.

4.8.8 Cross Tabulations on Attitude and Practice of Exclusive Breastfeeding

This section examines the relationship between attitude of respondents towards exclusive breastfeeding and their practice of exclusive breastfeeding in other to show theinterdependence between variables and to find out how likely it is that thetwo variables are associated.

Table 4.8.9 Relationship between respondent's attitude and practice of exclusive breastfeeding

Attitude	Practice		Total
	Yes	No	
Unfavourable	32(44.4%)	54(39.7%)	86(41.3%)
Favourable	40(55.6%)	82(60.3%)	122(58.7%)
Total	72(100%)	136(100%)	208(100%)

Table 4.8.9 indicatesthat at the df of 1 and alpha level of 0.05. The calculated X^2 Value of 1.573 is less than the table X^2 value of 3. 841. This shows that there is no significant relationship between respondent'sattitude and the practice of exclusive breastfeeding, the null hypothesis is therefore accepted.

Findings from the cross tabulation have shown that respondents with knowledge of exclusive breastfeeding had a favourable attitude towards it.Thissuggests thatknowledge influences attitude towards exclusive breastfeeding. However, despite the high knowledge of exclusive and a favourable attitude towards it, majority of the respondents did not practice exclusive breastfeeding.It might be concluded from this that high knowledge and favourable attitude does not entirely determine the practice as there exist some other factors such as employment, medical condition, and poverty that hinders women from practicing.

4.9Discussion of Key Findings

This study was carried out to assess the knowledge, attitude and practice of exclusive breastfeeding among women in Kaduna metropolis. Findings show that majority (38%) of the respondents are within the age bracket of 21-30.This could be as a result of the fact that women

older than 30, belong to the work force and most likely at work when the research was conducted. Result from the cross tabulations also reveals that women who are between the ages of 21-30 practiced mixed feeding more as compared to exclusive breastfeeding, while women within the age bracket of 31-40 practiced exclusive more than other age groups. These findings corroborate with Al-Shoshan, (2007)who argued that the age of the mothers influences their decisions to breastfeed.This is because older women have greater probability to continue to breastfeed which increases the possibility of breastfeeding exclusively more than younger mothers. Kio (2015) added that younger women mostly belong to the work force finding breastfeeding challenging because, in some cases, are still schooling and working.

Finding reveals that majority, 52%, of respondent are Christians and 51% constituting the majority have tertiary qualifications. Findings further revealed that 64% of respondents practiced mixed feeding.Further analysis from the cross tabulation reveals that majority (27%) of them have tertiary education qualifications and they ranked highest, and 26% among respondents who practiced exclusive breastfeeding. Findings from cross tabulation reveals that there is a relationship between level of education and practice. Hence, educational qualification appears to be a factor influencing the decision to breastfeed exclusively. This finding is in line with Agho et al (2011) whose study discovered that women with higher educational qualification are more likely to be better informed about the practice of exclusive breastfeeding and are likely to practice exclusive breastfeeding. Similar findings were made by Ajibuah (2013).He observed that there is a positive correlation between education and awareness of EBF.Result shows that majority, 33%, of the respondents are public servants, while majority, 32%, also earn below 18,000 naira monthly.Result from the cross tabulation further shows that women earning below 18,000 Naira

monthly forming 12% practiced exclusive breastfeeding and ranked higher than others with higher income. Findings agrees with Al-Shoshan (2007) who argued that it has been observed that infants from the wealthiest households are less likely to be exclusively breastfed than those from the poorest households. This is because people from wealthy household can afford to buy breast milk substitutes which makes them refuse to breastfeed their babies exclusively.

Findings also shows that majority of the respondents (40%) are from other tribes perhaps.It is a result of the attribute of a metropolitan state where people from different extraction settle for different purposes. Majority of the respondents (84%) are marriedas would be expected from a study of this nature.Married women are those more interested in having children as compared to the singles. Result also show that (40%) of the respondents are experienced mothers.

Based on the objective of women's knowledge of exclusive breastfeeding, result reveals that a significant number of respondents (96%) are aware of exclusive breast feeding.This finding is consistent with the results in Rahimi et al(2016), where (87%) of the respondents had a good knowledge of exclusive breastfeeding. Further analysis was made on the source of knowledge and results indicated that 88% of the respondents received their education in a hospital. Similarly, findings are supported by the findings of Thomas (2016), where 92% of the respondents stated they had received information at the clinics concerning the benefits of EBFfrom the practitioners. This indicates that hospitals are major sources of disseminating knowledge of exclusive breastfeeding. Furthermore, Majority of the respondent (55%) believes that breastfeeding should be initiated within one hour of birth. This implies that majority are of the recommended period of breastfeeding initiation. Findings on respondent's knowledge of the

recommended duration showthat majority (81%) believe the recommendation is for 0- 6months and most of the respondents (61%) believe that the practice of exclusive breast feeding is beneficial to both mother and child. This implies that majority are aware of the six months recommended duration, but have limited knowledge on who benefits from the practice. EBF has been associated with economic benefits which benefits the entire society.

Analysis on women's knowledge of the benefits of exclusive breastfeeding reveals that 93% of the respondents agreed that breastfeeding increases mother and infant bonding.The findings are in line with other studies that argues that breastfeeding establishes a close bond between mothers and infants, thus strengthening feelings of security in the child at the outset of life.For instance, Mbada et al (2013), in their study, on knowledge attitude and techniques of breastfeeding among Nigerian mothers in asemi-urban community reported that on a scale of 100, 76 rated breastfeeding as a means to promotes mother-baby bonding.The study further showed that 92% of the respondents agreed that exclusively breastfed infants have stronger immune system than formula fed infants.This finding is also in agreement with Clark and Bungum (2003) who stated that breastfed children exhibit greater resistance to infectious disease and stronger immune systems than their formula fed peers and they also experience lower rates of chronic diseases.

Furthermore, 93% of the respondents agreed that exclusively breastfed infants have reduced risk of infectious diseases and 83% agreed.They have reduced risks of chronic diseases than formula fed infants. These findings are not in agreement with the findings of Tyndall et al (2016), who found out that (78%) of respondents believed that EBF causes respiratory tract infections.

Findings also reveals that majority of the respondents agreed that exclusive breastfeeding reduces risk of breast and ovarian cancer with 83%and 85%respectively. Findings are in line with Labbok (2001) who posited that breastfeeding lowers the risk of breast and ovarian cancers, and possibly the risk of hip fractures and osteoporosis. This study also revealed that 75% of the respondents agreed that exclusively breast-fed infants have higher cognitive development and intellectual capacity, while 81% of the respondents believe that exclusive breastfeeding reduces overall health care cost. Results on respondent's views on exclusive breastfeeding as a form of contraceptives shows that most of them (68%) agreed that exclusive breastfeeding helps in child spacing.

Results on the objective of respondent's attitude towards exclusive breastfeeding shows that majority of the respondents (74%) have favourable attitude as they disagreed that formula feeding is more convenient than breastfeeding, while 26% had unfavourable attitude.This finding corresponds with the findings of Mbada et al (2013) where it was discovered that on a scale of 100, 76 rated breastfeeding as easier than feeding infant on formula. These findings, however, are not in agreement with Zang et al (2015) whose assertions are that women can be easily swayed by the perceived advantages of formula feeding as more convenient than breast feeding, especially in public places and less tiring. Findings also reveal that majority (52%) of respondents have a favourable attitude towards breastfeeding in public places and they do not believe it is embarrassing to breastfeeding their infant in public places, while 48% of the respondents find it embarrassing and have an unfavourable attitude towards it. This result is in contrast with the findings of Ike (2013), where they assert that one of the reasons of low acceptance of exclusive breastfeeding is that some women find breastfeeding in public places

very discomforting. This contrast could be as a result of individual difference as well as socio-cultural and religious difference. A woman's religious and socio-cultural background can influence how she feels about breastfeeding in public places.

Respondent's views on how long an infant can survive without water shows that majority of the respondents 81% agreed that an infant can survive on breast milk only till six months of age.This suggests a favourable attitude, while 19% of the respondents believe that a baby cannot survive without water for that long, hence an unfavourable attitude. This indicates that most women in Kaduna metropolis believe that not giving water cannot hinder or reduce the survival chance of an infant. In contrast to this findings, Tyndall et al (2016), in their study ofknowledge, attitude and practice on exclusive breastfeeding in Adamawa State, observed that more than 90% of mothers were under the impression that EBF was not ideal for the tropics On the issue of exclusive breastfeeding reducing sexual desire and satisfaction, majority of respondents (68%) disagreed that exclusive breastfeeding reduces sexual desire and satisfaction.While this assertion is favourable, the remaining 32% of the respondents have unfavourable attitude. This result is in contrast to the assertions of Daglas and Antoniou (2012) who explained that there are many women that resorted to artificial feeding in order to continue their relations with their husbands or mates and not reduce their sexual desire and satisfaction.

Most of the respondents (60%) believed that exclusively breastfed infants have more intellectual capacity and increased growth rate than their formula fed peers, therefore, have a favourable attitude, while 40% have an unfavourable attitude. Also, 78% of the respondents do not believe an infant need locally made herbs to survive, hence have a favourable attitude while 22% have

an unfavourable attitude.This assertion could be due to the level of education and the depth of knowledge seen among the respondents.

Findings on the practice of exclusive breastfeeding after adding up mixed, predominant and formula feeding to arrive at the total of mixed feeding.The result shows that majority, 64%, of the respondents practiced mixed feeding and only 36% practiced exclusive breastfeeding in spite of the high level of knowledge about EBF, indicating that some detracting factors may be at play. Findings are supported by Rahma et al (2017), in their study, where they observed that majority of the mothers (73.8%) did not exclusively breastfeed their children, but in general, knowledge of exclusive breastfeeding was high (86.2%).This by implication means knowledge does not entirely guarantee the practice of exclusive breastfeeding.

Results also revealed thatthat majority, 44%, did not introduce other fluids before breastfeeding initiationand out of those who introduced liquids before breastfeeding; majority (26%) did so as a result of delayed milk production. Further analysis showed that the respondents introduced other fluids before six months with majority (28%) occurring at the third months, while 26% of the respondents adhered to the six-month standard for exclusive breastfeeding. Majority of respondents (26%) who introduced other fluids at the time did it because they were busy with work/school.These findings are in contrast to the findings of Thomas (2016) in his study of barriers to exclusive breastfeeding among mothers during the first four weeks postpartum. He observed that66.7% of the respondents stated that return to work and return to school (73.3%) were not barriers to continue EBF

Findings also revealed that most of the respondents (51%) breastfed or intend to breastfeed for more than 1 year, while 42% of the respondents are influenced by health care professionals on

choice of infant feeding. Findings also reveal that majority (57%) of the respondents have experienced breastfeeding problems, while 43% have not.Out of those who have had difficulty in breastfeeding (Majority 37%) complained of nipple pain. This finding corresponds with the findings of Njeri (2012), where (49.0%) of the study participants reportedexperienced painful breasts as a common breastfeeding problem.Finally, findings on breastfeeding practices revealed that majority of the respondents (61%) consult health care professionals whenever they experience breastfeeding problems.

Findings on factors responsible for the practice and non-practice of exclusive breastfeeding shows that majority, 70%, of the respondents asserts that lack of support from spouse and relatives discourages the practice of exclusive breastfeeding.This finding is supported by Ajibade et al (2014).Their study stated that for many mothers the spouse is the most important provider of breastfeeding support and women who feel unsupported by their partner with regard to their breastfeeding decisions are less likely to be successful in exclusive breastfeeding. About 80% of the respondents agreed that employment can hinder the practice of exclusive breastfeeding.This corroborates the study conducted by Maduforo and Onuoha (2011), where they argued that employed mothers are away from their child due to their job and are most likely to experience conflict of roles and have difficulty balancing the role of a wife, a mother, and a worker which makes the practice of exclusive breastfeeding difficult.

Similarly, a study conducted by Alenkheet al corroborates findings of this study as 78.9% respondents claimed that resuming after the leave was and has been stressful. They asserted that it affected their breastfeeding habit after childbirth. About 80% also agreed that lack of support from co-workers and management at work place hinders the practice of exclusive breastfeeding.

These findingsagree with Uchenna (2012), who argued that the work environment and attitude of fellow workers plays a great role in encouraging and supporting mothers in the practice of exclusive breast feeding.

Odu and Dotun (2007) added that many employers and boss frown at mothers coming to work with their babies and that disturbs the nursing mothers psychologically and discourages nursing mothers to practice exclusive breastfeeding due to the fact that they need to keep their job.They resolve to give the babies artificial milk. Half (50%) of the respondents disagreed that socio cultural beliefs do not affect the practice, while 80% of the respondent also agreed that mother's perception of insufficiency of breast milk discourages the practice of exclusive breastfeeding. On maternal education, 66% of the respondents agreed that lack of maternal education predisposes mothers not to breastfeed exclusively, while a significant number of the respondents 85% believe that nutritional status as well as mother and child medical condition determine the ability to breastfeed exclusively. This result is in tandem with assertions made by WHO and UNICEF (2008) that there are health cases that may justify recommending a nursing mother to not breastfeed temporarily or permanently.

Finally, respondent's suggestion on the possible ways to motivate the practice of exclusive breastfeeding shows that majority, 16%, of respondents suggested education for everyone as means of improving and motivating the practice of exclusive breastfeeding.Findings from the cross tabulations also revealed that respondent's attitude does not determine their practice of exclusive breastfeeding. Despite a favourable attitude towards exclusive breastfeeding the

practice of other forms of feeding is higher than the practice of exclusive breastfeeding in Kaduna metropolis.

Breastfeeding is not only instinctual but also a social behaviour. The social cognitive theory stressed that behaviour is being shaped and controlled either by environmental influences or by internal dispositions, such as instincts, beliefs, feelings and perception which forms attitude, but reciprocal causation does not mean that the different sources of influence are of equal strength.Some may be stronger than others. The strength of influence is clearly shown in the results of this study. Knowledge and attitude are personal factors or internal dispositions that determine practice of exclusive breastfeeding (behaviour).However, in this study, the strength of environmental influences outweighs that of the personal factors. This is demonstrated in the findings as the result reveals a high level of knowledge and positive attitude towards exclusive breastfeeding but a low practice of exclusive breastfeeding. Other factors in the Environment such as employment and economic factors had a stronger influence on the practice.

The theory was also stressed on other determinants of behaviour such as behavioural capability and self-efficacy. This means ability and confidence to perform a behaviour. Findings from the qualitative data revealed that many mothers complained of the six months duration. Informants also assert that mothers complained that the duration is too lengthy and very demanding, which makes them unable to cope with the stress of breastfeeding on demand. Also working mothers are faced with two conflicting roles of being an employee and a mother, therefore, do not have the confidence of success, if they decide to breastfeed exclusively.Although, expectations and outcome determine whether or not a behaviour will be adopted, is sometimes not considered when faced with barriers. This also demonstrated in the study as result reveals that majority have

knowledge of the benefits of exclusive breastfeeding, yet only few women practiced exclusive breastfeeding.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0Introduction

This chapter gives summary details on the findings of this research work. Based on the findings, further recommendations are subsequently made in order to enable the society and authorities to take necessary actions.

5.1Summary of Key Findings

The study discusses essentially,the knowledge attitude and practice of exclusive breastfeeding among women in Kaduna metropolis. The objectives of the study were to find out women's knowledge of exclusive breastfeeding, examine the attitude of women towards exclusive breastfeeding in Kaduna metropolis, identify the behaviour of women towards exclusive breastfeeding in the study area and analyse factors influencing the practice and non-practice of exclusive breastfeeding among women in the study area.

The findings showed that most (38%) of the respondents were within the age bracket of 21-30 years, findings also revealed that respondents who were between the ages of 21-30 practiced mixed feeding more than other age groups. Furthermore, majority (52%) of the respondents are Christians, most of the respondents have (53%) have attained tertiary education and majority (31%) are public servants. Findings also reveal that majority (33%) of the respondents earn below 18,000 naira monthly, most (40%) of the respondents are from other tribes, majority (84%) are married women, and (40%) are experienced mothers.

Findings on knowledge of exclusive breastfeeding show that majority (95%) of respondents were aware of exclusive breast feeding, majority(85%) received their education in a hospital, majority (51%) believe that breastfeeding should be initiated within one hour of birth, most (81%) of the respondents believe it is recommended for 0- 6months and majority (61%) of the respondents believe it is beneficial to both the mother and child. Further findings revealed that respondent's knowledge of benefits of exclusive breastfeeding. Result shows that majority (93%) agreed that breastfeeding increases mother and infant bonding, 92% of the respondents agreed that exclusive breastfeeding increases stronger immune system. Also,majority (93%) agreed that exclusively breastfed infants have reduced risk of infectious diseases and majority (66%) agreed that exclusively breastfed infants have reduced rates ofdiseases.

Findings also reveal that majority, agreed that mothers who breastfeed exclusively have reduced risk of breast and ovarian cancer with83% and 85% respectively. Analysis on higher cognitive development capacity of exclusively breastfed infant shows that majority 75% of the respondents agreed that exclusively breast-fed infants have higher cognitive development and intellectual capacity than their formula fed peers, 83% agreed that exclusive breastfeeding increases intellectual capacity and 81%believe that exclusive breastfeeding reduces health care cost.

Findings on attitude of exclusive breastfeeding show that majority (74%) of the respondents have favourable attitude, hence disagreed that formula feeding is more convenient than breastfeeding, while (26%) had unfavourable attitude. Also, majority (52%) of respondents have a favourable attitude.They do not believe it is embarrassing to breastfeed in public places, while (48%) have an unfavourable attitude. Findings also reveal that (50%) agreed that the recommended duration

for exclusive breastfeeding is too lengthy. Most (81%) of the respondents have a favourable attitude, as they agreed that an infant can survive on breast milk only till six months of age, majority (68%) have a favourable attitude as they disagreed that exclusive breastfeeding reduces sexual desire and satisfaction, while (32%) have unfavourable attitude. In addition, most of the respondents believe that exclusively breastfed infants have more intellectual capacity and increased growth rate than their formula fed peers and, therefore, have a favourable attitude, with (66%) and (60%) while only (34%) and (40%) have an unfavourable attitude.Majority 78% of the respondents do not believe an infant need locally made herbs to survive, hence have a favourable attitude.

Findings on breastfeeding practices of respondent shows that majority, (46%) practiced mixed feeding, (44%) constituting the majority did not introduce liquids before breastfeeding initiation. For those who introduce other fluids before breastfeeding initiation, majority (26%) did so as result of delayed milk supply. Findings also revealed that majority 28% introduced other fluids at the third month and most (51%) of them introduced other fluids at the time they did because they were busy with employment or school. Furthermore, majority (51%) of the respondents breast fed or intend to breastfeed for more than 1 year, majority (42%) of the respondents are influenced by health care professionals on choice of infant feeding and majority(57%) said that they have had problems in breastfeedingamong those who had experienced breastfeeding problem, majority (37%) experienced nipple pain.

Findings on the factors influencing the practice and non-practice of exclusive breastfeeding show that that majority (70%) of the respondents agreed that lack of support from spouse and relatives discourages the practice of exclusive breastfeeding. Majority(80%) of the respondents agreed

that employment hinders the practice of exclusive breastfeeding. Also,71% of the respondents agreed that lack of support from co-workers at work place hinders the practice of exclusive breastfeeding, and majority (80%) agreed that lack of support from management at work place hinders the practice of EBF.The result also revealed that half 50% of the respondents disagreed that socio-cultural belief factors do not affect the practice of exclusive breastfeeding and majority (69%) agreed that cultural practices affect the practice of EBF.

Findings further revealed that majority (71%) agreed that mother's perception of insufficiency of breast milk discourages the practice of exclusive breastfeeding and most (66%) agreed that lack of maternal education predisposes mothers not breastfeed exclusively. Results also revealed that majority (85%) agreed that nutritional status of mother influences decision to breastfeed exclusively and majority (53%) agreed that mother/child medical condition can hinder the practice of EBF. Finally, majority (16%) of respondents suggested education for everyone as means of motivating the practice

5.2Conclusion

Mixed feeding still seems to be more prevalent in Kaduna metropolis.Despite the increased knowledge of exclusive breastfeeding, and the favourable attitude towards it,it consequently reflects in the health of mothers and children. This implies that the knowledge of exclusive breastfeeding does not necessarily translate into practice. Other factors were identified as barriers to the practice.Such factors include:lack of support from spouse and relatives, employment, lack of support from co-workers and management at places of work. Also, findings of the study revealed that social cultural beliefs and practices, lack of maternal education, poor perception about insufficiency of breast milkand poor power supply for the storage of expressed breast milk,

hinders the practice of exclusive breastfeeding. Maternal nutritional status, medical condition, and infant's medical condition were also identified as possible factors that hinder the practice of exclusive breastfeeding.

5.3Recommendations

Based on the findings of the research, the following recommendations are made:

1. Although, knowledge is no longer a challenge like it was before,the ministry of health and other health organization still need to intensify their efforts in educating women of child bearing age by organizing seminars and symposiaspecificallyaddressing the concerns of delayed milk production and breastfeeding difficulties. Mothers should be educated on breastfeeding techniques, how to care for the breast and ways to prevent breast feeding problems such as breast pain and engorgement. They also need to be educated on how to maintain good health and proper diet as they contribute to ensuring a successful practice.
2. Current public health interventions on exclusive breastfeeding are tailored to the needs of breastfeeding women only. As a result, health organizations and NGO's should come up with strategies ineducating grandmothers, fathers and traditional birth attendants with the aim at increasing the familiarity of family relations on exclusive breastfeeding, as they play a key role in influencing mothers in infant feeding practices. Husbands should be fully involved throughout the stages of pregnancy and delivery so they can understand what is needed to provide adequate support
3. Breastfeeding education should be introduced in school curriculum.That way, young people of both sexes can be educated at an earlier stage as they are future parents.

4. Based on the findings of the study, lack of support from management at the work place has been a barrier to the practice of exclusive breastfeeding.Therefore, theministry of labour and productivity need to address women's right to breastfeed in the workplace by ensuring thatemployers provide breastfeeding and expressing facilities at the work place, such as crèche facilities to be used by employees who are nursing mothers. Also, employers should consider reduced working hours for breastfeeding employees or extension of maternity leave period. This will give nursing mothers time to breastfeed on demand and that will consequently motivate the practice of exclusive breastfeeding.
5. Based on the findings of the study, lack of support was identified as one of the major factors that hinder the practice of exclusive breastfeeding. Therefore, government in collaboration with health organizations should come with intervention on behaviour change programmes to support the practice of exclusive breastfeeding.
6. Government and health professionals need to especially target low-income women when creating and applying interventions.Women with very low income find it difficult to feed themselves let alone breastfeed exclusively.Early cessation was associated with impoverished living conditions, and the government need to tackle the issue of poverty and improve its citizen's standard of living.
7. Government and electricity distribution companies should address the problems of power supply so as to ensure a proper storage of expressed milk.

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APPENDIX I

QUESTIONAIRE

I am an M.Sc. student of department of Sociology Ahmadu Bello University, Zaria conducting a research on the Topic "An assessment of knowledge, attitude and practice of Exclusive breastfeeding among women in Kaduna Metropolis". I will appreciate, if you would give factual objective response to the items on the questionnaire. Please note that this research is purely academic and information given out will be treated with outmost confidentiality.

Thanks for your anticipated cooperation.

Please you are to tick your view in the space provided.

SECTION A: Socio-demographic Data

1. Age (a) 15-20 [ ] (b) 21-30 [ ] (c) 31-40 [ ] (d) 41 and above [ ]
2. Religion (a) Christianity [ ] (b) Islam [ ] (c) Traditional [ ] (d) [ ] Others specify……
3. Level of education (a) No education [ ] (b) Primary [ ] (c) Secondary (d) Tertiary [ ]
4. Occupation (a) Trader [ ] (b) Public servant [ ] (c) private employment [ ] (d) unemployed [ ]
5. Level of income (a) Below 18,000 [ ] (b)18,000-30,000 [ ] (c) 31,000-50,000 [ ] (d) 51,000-70,000 [ ] (e) Above 70,000
6. Ethnic group (a) Hausa [ ] (b) Yoruba [ ] (c) Igbo [ ] (d) [ ] Others specify…….....
7. Marital status (a) Single [ ] (b) Married [ ] (c) Divorced [ ] (d) Widowed [ ]
8. Category of respondent (a)Expectant mother [ ] (b)Lactating mother [ ] (c)Experienced mother[ ]

SECTION B: Women's Knowledge of exclusive breastfeeding

9. Are you aware of the term exclusive breastfeeding? (a) Yes [ ] (b) No [ ]
10. Have you ever received breastfeeding education? (a)Yes [ ] (b) No [ ]
11. If yes, where did you receive your breastfeeding education? (a) In a hospital [ ] (b) At home [ ] (c) At work [ ] (d) In school [ ] (e) Others specify……..
12. When is the appropriate period of breastfeeding initiation? (a) Within one (1) hour of birth [ ] (b) After two (2) hours of birth [ ] (c) After six (6) hours of birth [ ] (d) others specify……

13. What is the recommendation duration for exclusive breastfeeding? (a) 0- 2 months [ ] (b) 3 –4 months [ ] (c) 0 – 6 months [ ] (d) 0 – 1 year [ ]

14. Who benefits from the practice of exclusive breastfeeding? (a) Mother alone [ ] (b) Child alone (c) [ ] (d) Mother and child [ ] (d) Others specify…….....

SECTION C: Women's attitude towards exclusive breastfeeding

Please answer all questions in your best possible manner. Please rank the items below on a scale as follows:

1= Strongly disagree
2= Disagree
3= Agree
4= Strongly agree

S/N		SD	D	A	S A
15.	Formula feeding is more convenient than breastfeeding.				
16.	It is embarrassing to breastfeed in public places.				
17.	The infant can survive on breast milk only till six months of age.				
18.	Recommended duration is too lengthy.				
19.	Exclusive breastfeeding decreases sexual desires and satisfaction				
20.	There is no difference between growth rate and intellectual capacity between exclusively breastfed infants and formula fed infants				
21.	Infants need locally made herbs to survive				

22. Others specify……

SECTION D: Breastfeeding Practices

23. What method of infant feeding did/will you use? (a) Partial/mixed feeding [ ] (b) Predominant feeding [ ] (c)) Exclusive breastfeeding [ ] (d) Formula feeding [ ]

24. What did liquids did you introduce before breastfeeding initiation? (a) Medicine [ ] (b) Glucose water [ ] (c) Formula milk [ ] (d) None [ ]

25. What are your reasons for introducing other fluids before breastfeeding initiation? (a) Delayed milk supply [ ] (b) Mother was ill [ ] (c) Baby was ill [ ] (d) Others specify……

26. At what age did/will you introduce fluids to your baby? (a) First month [ ] (b) Second month [ ] (c) Third month [ ] (d) Others specify……..

27. Why did you introduce other foods at that age? (a) Baby was hungry [ ] (b) Baby was old enough [ ] (c) Age recommended by relatives and friends [ ] (d) Others specify……

28. When pregnant how long did/will you plan to breastfeed? (a) 0 to 3 months [ ] (b) 4 to 5 months [ ] 6 months to 1 year (d) [ ] (d) Above one year [ ]

29. Who helped you with your decisions on how breastfeed your baby? (a) My own decision [ ] (b) Baby's father [ ] (c) Health care professionals [ ] (d) Family and relatives

30. Did you experience difficulties when breastfeeding? (a) Yes (b) No

31. What are some of the problems you encountered? (a) Nipple pain [ ] (b) Breast pain [ ] (c) Engorgement [ ] (d) Others specify……..

32. Who did you consult whenever you experienced breastfeeding problems? (a) Partner [ ] (b) Mother (c) Health care providers [ ] (d) Relatives [ ]

SECTION E: Factors influencing the practice and non-practice of exclusive breastfeeding.

The following are likely factors influencing the practice and non-practice of exclusive breastfeeding

SN		S D	D	A	S A
33	Lack of support from spouse and relatives discourages the practice of exclusive breastfeeding.				
34	Employed mothers find it difficult to practice exclusive breastfeeding.				
35	Lack of support from co- workers and management at places of work hinders the practice of exclusive breastfeeding.				
36	Socio-cultural beliefs and practices do not affect exclusive breastfeeding practice.				
37	Perception on the insufficiency of breast milk discourages mothers from breastfeeding exclusively.				
38	Lack of maternal education predisposes mother from breastfeeding exclusively.				

39	Nutritional status and mother/child medical condition determines the possibility to breastfeed exclusively.				

40. Others specify……

SECTION F: knowledge of the Benefits of exclusive breastfeeding

The following are the likely benefits of exclusive breastfeeding.

S/N		SD	D	A	SA
41	Breastfeeding increases mother-infant bonding.				
42	Exclusively breastfed infants have stronger immune system than formula fed infants.				
43	Exclusively breastfed infants have reduced risk of infectious and chronic diseases.				
44	Mothers who breastfeed exclusively have lower risk of breast and ovarian cancer.				
45	Exclusive breastfed infants have higher cognitive development and intellectual capacity.				
46	Exclusive breastfeeding reduces health care cost				
47	Exclusive breastfeeding helps in child spacing among women who do not use contraceptives.				

48. Others specify……..

49. Suggest possible ways to motivate the practice of exclusive breastfeeding

……

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APPENDIX II

In-depth interview guide for health care professionals

Knowledge of exclusive breastfeeding.

1. What do you know about exclusive breastfeeding?

   Probe for:

   - Explain the differences between exclusive breastfeeding and other types of infant feeding
   - Women's understanding on the types of infant feeding, their disparities and benefits
   - Impact of antenatal counselling services on knowledge of exclusive breastfeeding
   - Disparities in the level of knowledge between older mothers and younger mothers, and care givers such as fathers, Grandmothers.
   - Influence of maternal education on knowledge of exclusive breastfeeding.

Attitude towards exclusive breastfeeding

2. Women tend to show different attitude towards exclusive breastfeeding what is your take on that?

   Probe for

   - Maternal beliefs (breastfeeding myths, feeding colostrum)
   - Women's response to breastfeeding education
   - Cultural practices in regard to infant feeding
   - Influence of antenatal counselling on decisions of infant feeding
   - Friction between medical science and cultural beliefs and practices on attitude

Behaviour towards exclusive breastfeeding

3. In your opinion how do women behave towards exclusive breastfeeding?

   Probe for:

   - Women's attendance to health care centers for breastfeeding education
   - Women's reaction to the rule of no water and other fluids/food till the sixth month
   - Women's compliance to all the rules of exclusive breastfeeding

- Compliance rate between experienced older mothers and younger mothers.
- Care givers reaction to exclusive breastfeeding as the recommended type of infant feeding

Factors influencing practice and non-practice of exclusive breastfeeding

4. What do you think are the factors responsible for the practice or non-practice of exclusive breastfeeding**?**

   Probe for:

   - Personal characteristics (perception, beliefs, attitude, self-confidence)
   - Socio economic factors (employment, level of income)
   - Socio cultural factors (cultural practices, cultural rites, breastfeeding myths)
   - Breastfeeding difficulties (Painful breast, sore nipples, low milk supply)
   - Mother's nutrition
   - Mother's/child's medical condition
   - Influence from care givers, friends and relatives.

Knowledge of the benefits of exclusive breastfeeding

5. The practice of has been associated with numerous benefit. Do you think mothers have proper knowledge on the benefit of exclusive breastfeeding?

   Probe for:

   - Informant's personal knowledge on the benefits of exclusive breastfeeding
   - Reduced risk of infectious and chronic diseases
   - Stronger immune system
   - Increased mother-infant bonding
   - Reduced risk of breast amd ovarian cancer
   - Reduced health care cost
   - Increased growth rate and intellectual capacity

6. What do you think can be done to improve the practice of exclusive breastfeeding?

In-depth interview guide for male care givers (Husbands)

Knowledge of exclusive breastfeeding

1. What do you know about exclusive breastfeeding?

   Probe for:

   - Rules of exclusive breastfeeding and recommended duration.
   - Views on influence of maternal and paternal education on knowledge of exclusive breastfeeding.
   - Disparities in the level of knowledge between younger and older mothers, Husbands and family members.
   - Impact of antenatal counselling services on knowledge of exclusive breastfeeding from Women and their Husbands or partners.
   - method of infant feeding considered as appropriate and reasons for consideration.

Attitude towards exclusive breastfeeding

2. Both men and women tend to show different attitude towards exclusive breastfeeding what is your opinion

   Probe for

   - Maternal beliefs/ respondent's personal beliefs
   - Women and men's response to breastfeeding education
   - Cultural practices in regard to infant feeding
   - Influence of antenatal counselling on decisions of infant feeding

Behaviour towards exclusive breastfeeding

3. In your opinion how do women and their spouse behave towards exclusive breastfeeding?

   Probe for:

   - reaction to the rule of no water and other fluids/food till the sixth month by mothers and fathers
   - Women's compliance to all the rules of exclusive breastfeeding
   - Compliance rate between experienced older mothers and younger mothers.

- Respondent's reaction to exclusive breastfeeding as the recommended type of infant feeding as well other care givers (Baby's grandmother, Aunties Mother in-laws).

Factors influencing practice and non-practice of exclusive breastfeeding

4. What do you think are the factors responsible for the practice or non-practice of exclusive breastfeeding**?**

   Probe for:

   - Personal characteristics (perception, beliefs, attitude, self-confidence)
   - Socio economic factors (employment, level of income)
   - Socio cultural factors (cultural practices, cultural rites, breastfeeding myths)
   - Breastfeeding difficulties (Painful breast, sore nipples, low milk supply)
   - Mother's nutrition
   - Mother's/child's medical condition
   - Influence (support) from care givers, friends and relatives.

Knowledge of the benefits of exclusive breastfeeding

5. The practice of has been associated with numerous benefit. Do you think mothers and their spouse have proper knowledge on the benefit of exclusive breastfeeding?

   Probe for:

   - Informant's personal knowledge on the benefits of exclusive breastfeeding
   - Reduced risk of infectious and chronic diseases
   - Stronger immune system
   - Increased mother-infant bonding
   - Reduced health care cost
   - Reduced risk of breast and ovarian cancer
   - Increased growth rate and intellectual capacity

6. What do you think can be done to improve the practice of exclusive breastfeeding?

In-depth interview guide for elderly females/ experienced mothers.

Knowledge of exclusive breastfeeding

1. What do you know about exclusive breastfeeding?

   Probe for:

   - Rules of exclusive breastfeeding and recommended duration.
   - Breastfeeding knowledge of the older generation
   - Views on influence of maternal on knowledge of exclusive breastfeeding.
   - Disparities in the level of knowledge between younger and older mothers.
   - Impact of antenatal counselling services on knowledge of exclusive breastfeeding.
   - method of infant feeding considered as appropriate by the informant and reasons for consideration.

Attitude towards exclusive breastfeeding

2. Women tend to show different attitude towards exclusive breastfeeding what is your opinion

   Probe for

   - Maternal beliefs/ respondent's personal beliefs and older generation's beliefs
   - Women's response to breastfeeding education
   - Cultural practices in regard to infant feeding
   - Influence of antenatal counselling on decisions of infant feeding

Behaviour towards exclusive breastfeeding

3. In your opinion how do women and their spouse behave towards exclusive breastfeeding?

   Probe for:

   - reaction to the rule of no water and other fluids/food till the sixth month by mothers and fathers
   - Women's compliance to all the rules of exclusive breastfeeding
   - Compliance rate between experienced older mothers and younger mothers.
   - Respondent's reaction to exclusive breastfeeding as the recommended type of infant feeding as well other care givers (Baby's grandmother, Aunties Mother in-laws).

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6. What do you think can be done to improve the practice of exclusive breastfeeding?