**EFFECTIVENESS OF EXCLUSIVE BREASTFEEDING IN THE DEVELOPMENT OF UNDER 5 CHILDREN**

**ABSTRACT**

The purpose of this study was to examine the effectiveness of exclusive breastfeeding in the development of children under-five in Benue State, Nigeria. To achieve this purpose, 10 hospitals were randomly selected using multi-stage sampling technique (simple random, stratified, and purposive sampling techniques). The data was collected using close-ended questionnaire. 500 questionnaires were distributed to nursing mothers who visited antenatal clinics in the randomly selected hospitals, from which 455 were duly completed and returned. Frequencies of percentages and cross tabulation statistics were used to answer research questions. Associations between demographic determinants and breastfeeding practices were analyzed using Chi-square statistics at alpha level of 0.05 to test the formulated hypotheses. The findings of the study, indicated high (99.8%) prevalence of breastfeeding among nursing mothers, out of which 83.5% exclusively breastfed for up to 4-6 months. Only 16.5% however supplemented breastfeeding. The findings of the study revealed that; mother’s age significantly influenced the practice of exclusive and non-exclusive breastfeeding of babies, indicating high exclusive breastfeeding among mothers of 25years and above, and low exclusive breastfeeding among younger mothers of 19 years and below. The results further showed that, mother’s level of education significantly influenced the practice of exclusive and non-exclusive breastfeeding of babies, indicating high exclusive breastfeeding practice among literate mothers with at least secondary education. Those with low educational attainment had poor or low practice of exclusive breastfeeding. Based on the results of this study, the following conclusions are drawn: Mother’s age influence the practice of exclusive and non-exclusive breastfeeding of babies in Benue State. Mother’s level of education influenced the practice of exclusive and non-exclusive breastfeeding of babies in Benue State. Based on the conclusions, the following recommendations are made: Special interventions should be made for young mothers with poor breastfeeding practices usually (15-19years) by health care workers to encourage them endure the herculean task of breastfeeding, through education, and nursing support to enable them breastfeed exclusively. Since education remains the most viable means of reaching mothers on the benefits of exclusive breastfeeding, health care workers should intensify education to provide mothers with complete and current information on the methods of exclusive breastfeeding in order to increase mother’s knowledge of benefits of child development derived from exclusive breastfeeding.

**CHAPTER ONE**

**INTRODUCTION**

**1.1 Background of Study**

Infant feeding methods are a major determinant of infant nutritional status, which in turn, affects infant morbidity and mortality. Among feeding methods, breastfeeding is of particular importance because this practice is fundamental for growth, development, health and survival of infants. Diallo, Bell, Moutquine, &Garrant (2005) stated that about 5.6 million infants die annually because they do not receive adequate nutrition. Breastfeeding therefore has been classified by scientists and health workers as the best natural food for babies and breast milk contains all the necessary nutrients for the healthy growth of the child. The benefits of breastfeeding are numerous ranging from providing the infant with antibodies, to helping ward off risks of illnesses and providing the baby with all his/her nutritional needs (Mundi, 2008). According to the World Health Organization (WHO) (2004), breast milk provides all the energy and nutrients that the infant needs for the first six months of life, and it provides about half or more of a child’s nutritional needs during the second half of the first year, up to one third during the second year of life. Furthermore, breast milk not only protects the infant against infectious and chronic diseases, but also promotes sensory and cognitive development in addition to contributing to the health and well-being of mothers, helping in birth spacing, reducing the risks of ovarian and breast cancers as well as increasing family and national resources (WHO, 2004).

Generally, breastfeeding is practiced all over the world, though with variation in duration. Considering that the introduction of other food supplements at an early age often increase the risks of infections to the infant which may at times lead to life-threatening conditions such as diarrhoea, the WHO and United Nations Children’s Emergency Fund (UNICEF)(2004), recommended that infants be exclusively breastfed for six months and, thereafter, up to 24 months, introducing other supplements to support the infants growth and development.

In view of the many benefits afforded by mothers and infants in breastfeeding, governments have also set goals and rates for breastfeeding practices. The Nigerian government has earmarked six University Teaching Hospitals as Baby Friendly Hospital Initiative (BFHI) centres, in Benin, Enugu, Maiduguri, Lagos, Jos, and Port-Harcourt, with the objective of reducing infant malnutrition, morbidity and mortality, as well as promoting the health of mothers. Since the inception of BFHI in 1991, a series of programmes, seminars, workshops and conferences aimed at promoting breastfeeding practices have been organized. The BFHI itself has proved to be an effective method of improving breastfeeding practices worldwide (Salami, 2006). To further strengthen the practice of exclusive breastfeeding, government also approved a breastfeeding policy in 1998. The code on the marketing of substitutes of breast milk was reviewed and amended in May, 1999, to further introduce stiffer fines and a clearer definition of breast milk substitutes. These measures are aimed at increasing the rate of exclusive breastfeeding as well as the early initiation of breastfeeding so as to achieve the World Summit on Children 1990 goal of universal exclusive breastfeeding for infants up to six months of age (Mundi, 2008).

These measures notwithstanding, evidence showed that the practice of exclusive breastfeeding (though fast improving) is still low in many parts of the world. In Nigeria, the rate increased from 2% to 20% in infants 0-3 months and from 1% to 8% in infants 4-6 months between 1990 and 1999 (National Planning Commission (NPC)/UNICEF, 2001). The Nigeria Demographic and Health Survey (NDHS) (2008), however, revealed that 97% of Nigerian children under age five were breastfed at some point in their life. A small proportion of infant (13%) were exclusively breastfed throughout the first six months of life. More than seven in ten (76%) children of ages 6-9 months received complementary foods. 16% of infants less than six months of age were fed with a bottle with nipple, and the proportion bottle fed peaked at 17% among infant in the age ranges of 2-3 and 4-5 months. However, less than half of infants (38%) were put to the breast within one hour of birth and only 68% started breastfeeding within the first day. Relatively, among children born in the five year preceding the survey in Benue State, showed that 97.8% of children ever breastfed. 64.1% started breastfeeding within one hour of birth. 90.2% began breastfeeding within 1 day and 38.7% introduce pre-lacteal feed. Only 0.5% children were exclusively breastfed. These proportions indicate a marginal level of decline from the 1990, 1991, 1999, 2003 and the 2008 surveys (NDHS, 2008).

These dwindling attitudes regarding the practice of exclusive and non-exclusive breastfeeding have been attributed to several socio-economic, cultural and socio-demographic factors as it affects the development of children. Thus, this research project purposed to examine the effectiveness of exclusive breastfeeding in the development of under-five children in Benue State, Nigeria.

**1.2 Statement of Problem**

Breastfeeding practices have undergone tremendous medical, cultural and sometimes religious challenges and debate. In an attempt to achieve successful breastfeeding globally by the year 2000, the World Health Organization and United Nations Children’s Fund (1993), launched the Baby Friendly Hospital Initiative (BFHI) in 1991. The BFHI is a global effort involving 160 countries, of which 95 of them are in the developing world where Nigeria is inclusive (Salami, 2006). This project is to support, protect, and promote the practice of exclusive breastfeeding for six months and thereafter until 24 months of age. Several medical literature have also established the superiority of breast milk over the other types of milk for the nourishment of the human infants, offering better health benefits.

Although breastfeeding is universal in the country, the trend is towards giving other feeds in addition to breast milk. Generally, the practices are more diversified and are characterized by late initiation of breastfeeding, the administration of substances other than maternal milk, and the introduction of weaning foods within one month following the infant’s birth. The Nigerian Integrated Child Health Cluster Survey (ICHCS, 2003), indicated that a major area of need in infant breastfeeding was early initiation. The survey indicated a decline from 56% in 2000 to 34% in 2002. The Nigeria Demographic and Health Survey (NDHS, 2008) reports also revealed a 13% exclusive breastfeeding rate which is a decline from 17% indicated in 2003 report. The 2008 report further revealed that 34% of infants aged 0-5 months were given plain water in addition to breast milk, while 10% were given milk other than breast milk. Only 32% of infants’ under-24 months of age were still on breast milk.

Considering the percentage of mothers practicing breastfeeding, it should not be surprising that Nigeria is still saddled with high incidence of malnutrition and its associated infant mortality. Many factors have been adduced to influence these practices. The decisions are very often influenced more by other factors than by health considerations alone. According to Sika-Bright (2010), the factors which influence the decision to exclusively or non-exclusively breastfeed include; mother’s marital status, employment status, friends method of feeding their babies, social support and baby’s age. Several other demographic studies conducted over the years (i.e National Demographic Sample Survey (NDSS), 1966; Nigeria Fertility Survey (NFS), 1982; National Population Policy (NPP), 1988; Integrated Child Health Cluster Survey (ICHCS) 2003; Nigeria Demographic and Health Survey (NDHS), 1990, 1999, 2003, & 2008; have also identified similar factors to include; mother’s level of education, occupation, and income level to influence mother’s choice of exclusive breastfeeding. While significantly expanded in content, the primary objective of the previous surveys has been on emerging issues such as awareness and behaviour regarding HIV/AIDS and other sexually transmitted infection, poverty, gender inequality, fertility, mortality, nuptiality, awareness and use of family planning methods, sexual activity, nutritional status of mothers and infants, early childhood mortality and maternal mortality, maternal and child health and of course breastfeeding practices. However, these factors are apparent in the studies conducted over the years. The existence of a large scale of mothers practicing exclusive and non-exclusive breastfeeding, and its associated causes remained elusive in the studies. It is not definite or clear whether demographic factors significantly or insignificantly influence the practice of exclusive and non-exclusive breastfeeding. It is worthy of note that up till recently, the principal foci of attention has been demographic factors and the practice of exclusive breastfeeding. None of the studies conducted over the years concern itself much with demographic factors and the effectiveness of exclusive breastfeeding in the development of under-fives in Benue State. Therefore, the study purposed to examine effectiveness of exclusive breastfeeding in the development of under-fives in Benue State.

**1.3 Purpose of the Study**

The main purpose of this research project was to examine the effectiveness of exclusive breastfeeding in the development of under-five children in Benue State, Nigeria. The specific purposes of the study are:

1. To assess whether mother’s age, level of education and occupation has influence on the practice of exclusive breastfeeding.
2. To assess how effective exclusive breastfeeding is for children under-five.
3. To assess whether mothers have knowledge of the benefits and role that exclusive breastfeeding plays in child development (under-fives).
4. To determine if family views regarding breastfeeding influence mother’s decision to exclusively breastfeed.

**1.4 Research Questions**

This study sought to provide answers to the following specific research questions:

1. Does mother’s age, level of education and occupation influence the practice of exclusive breastfeeding?
2. How effective is exclusive breastfeeding for children under-five?
3. Do mothers have knowledge of the benefits and role that exclusive breastfeeding plays in child development (under-fives)?
4. Do family views regarding breastfeeding influence mother’s decision to exclusively breastfeed?

**1.5 Research Hypotheses**

**H01:** Mother’s age does not influence the practice of exclusive and non-exclusive breastfeeding of babies in Benue State.

**H02**: Mother’s level of education does not influence the practice of exclusive and non-exclusive breastfeeding of babies in Benue State.

**1.6 Significance of Study**

The findings of this study would give an insight into areas where health education campaigns are required to influence and promote the adoption of exclusive breastfeeding. Specifically:

It would also make progress towards obtaining demographic data on exclusive breastfeeding among nursing mothers attending antenatal clinics in Benue State. This, in addition, will benefit nutritionists, health planners in Benue State to formulate policies and strategies that are geared towards the promotion of exclusive breastfeeding on specific group of women and locations in which it is poorly practiced.

The findings of the study would benefit health workers to develop special intervention measures on specific age ranges of mothers who poorly practice exclusive breastfeeding.

The findings of this study would help health educators, nurses, nutritionists and curriculum planners to develop informed programmes for nursing mothers on the benefits of breastfeeding. This in addition, would update the curriculum to educate students in higher institutions of learning in preparing for future parenthood to adopt an effective method of breastfeeding the baby.

**1.7 Scope of Study**

This research project is focused on examining the effectiveness of exclusive breastfeeding in the development of under-five children in Benue State.

**1.8 Limitations of the Study**

The researcher experienced the following limitations. First, the relationship between types of breastfeeding and the infant mortality and morbidity were probably underestimated by some mothers as they did not attend post-natal care for further assessment and possible advice by the health care providers. Such nursing mothers were not included in the sample of the study. The study considered only nursing mothers that attended postnatal clinics.

The study did not take into account the differences between the infants who were raised by their biological mothers and those raised by significant others and this could involve some bias in the decision to exclusively or non-exclusively breastfeed the infant. Based on this, the researcher convinced the nursing mothers to provide accurate information on the method they feed their babies, as this was not to “witch hunt” them but was merely for academic purpose. Time and finances were limiting constraints to the work, notwithstanding the researcher was able to successfully complete the work.

**1.9 Operational Definition of terms**

**Exclusive Breastfeeding**: Exclusive breastfeeding means that the infant receives only breast milk. No other liquids or solids are given – not even water – with the exception of oral rehydration solution or drops/syrups of vitamins, minerals or medicines.

**Under-fives**: children who are less than five years old, especially those who are not in full-time education.

**CHAPTER TWO**

**REVIEW OF LITERATURE**

**INTRODUCTION**

Our focus in this chapter is to critically examine relevant literature that would assist in explaining the research problem and furthermore recognize the efforts of scholars who had previously contributed immensely to similar research. The chapter intends to deepen the understanding of the study and close the perceived gaps.

Precisely, the chapter will be considered in three sub-headings:

* Conceptual Framework
* Theoretical Framework
* Chapter Summary

**2.1 CONCEPTUAL FRAMEWORK**

**Breastfeeding**

The mainstay of infants’ diet in every culture from time immemorial had been breast milk. It is a postnatal activity of paramount importance and interest to diverse professionals in pediatrics, nursing endocrinology, psychology as well as sociology and anthropology (Uwakwe, 1996). With time, however, the trend began to

change as majority of mothers no longer breastfeed their babies as supposed. Unfortunately, therefore, breastfeeding has gone from the main source of food for infants to an uncomfortable less used practice (Wiese Erin, 2005). A critical assessment of this worrisome trend could be linked to the rising trend in civilization and the evolution of new cultural ideals (Eliot, 2003), by which breastfeeding has now been branded as old-fashioned and uncivilized. Besides the rising trend in civilization accounting for the decrease in breastfeeding rates, the effect of social perceptions (Bunik et al., 2006; Li et al., 2004; Raisler, 2000) as well as lack of education or

knowledge (Gibson, 2005; Dennis, 2002) has also tremendously contributed to many more women neglecting the breastfeeding practice. Ann and Richard (2001) unequivocally attributed this ugly development to poor emphasis on the benefits of breastfeeding and the popularity of synthetic baby formulations. Further limitations

to improved breastfeeding practices besides other prevailing myths include:

1.  Complacency, which may be one of the biggest threats to optimal infant feeding
2.  Widespread promotion of breast-milk substitutes
3.  Belief that infants need water in addition to breast milk
4.  The issue of breastfeeding and HIV transmission
5.  Lack of support for breastfeeding at home, in the community, in health care facilities and in workplaces
6. (e.g., policies for maternity leave and worksite facilities for breastfeeding), linked to the perception that
7. behaviour change is difficult or even impossible
8.  Lack of commitment and resources for behaviour change programmes needed to support optimum breastfeeding, and
9.  Poor understanding of the role of breastfeeding in advancing human and health rights (UNESCO, 2006,)

However, breastfeeding remains the best source of infant nutrition and immunologic protection, which also provides remarkable health benefits to mothers (Victora et al., 2016; AAP, 2012; Setegn et al., 2012; WHO, 2011). Similarly, the World Health Organization (2001; 2009) hints that exclusive breastfeeding is the single most cost-effective intervention to reduce infant mortality in developing countries. The 1990 Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding maintain that breastfeeding alone provides the ideal nourishment for infants for the first six months of life because it contains all the water, nutrients, antibodies and other factors an infant needs in order to thrive. Thus, it has profound impact on a child’s survival, health, nutrition and development. It is an exceptional means of providing ideal food for the healthy growth and development of infants. Kathleen Sebelius, Secretary to U.S. Department of Health and Human Services, has hinted that besides contributing to the mutual bonding between mothers and babies, breastfeeding is essentially important to mothers’ and infants’ health. A UNICEF (2015) document emphasized that the interaction between the mother and child during breastfeeding has positive effects for life for the child, in terms

of stimulation, behaviour, speech, sense of well being and security and how the child relates to other people. It also lowers the risk of chronic conditions later in life, such as obesity, high cholesterol, high blood pressure, diabetes, childhood asthma and childhood leukaemias; and enables infants do better on intelligence and

behaviour tests into adulthood than formula-fed babies. Breastfeeding also contributes to maternal health immediately after the delivery because it helps reduce the risk of post-partum haemorrhage. In the short term, it delays the return to fertility and in the long term, it reduces the risk of type 2 diabetes and breast, uterine and ovarian cancer. Furthermore, studies have also shown that exclusive breastfeeding for six months is the most favorable way of

infant nutrition Victora et al., 2016; AAP, 2012; Setegn et al., 2012; WHO, 2011). Exclusive breastfeeding, wherein the infant only receives breast milk without any additional food or drink, not even water, as WHO (2011) and AAP (2012) recommended, is further revealed to reduce the infant mortality associated with common

childhood illnesses such as diarrhoea or pneumonia. This is as a result of the fact that breast milk carries antibodies from the mother that help combat disease. Morse (1992) has stated that, breast milk contains fat which helps in rapid development of the brain of the child. Due to colostrums in breast milk, the baby acquires immunity against infection, gets nutrients for physical and mental development, emotional security and closeness to the mother. As a dynamic and physiologically sensitive process, breast milk production is adjusted to suit the infant’s requirement according to environmental changes. For example, breast milk will contain more fat during cold seasons. The mother also benefits from Exclusive Breastfeeding (EBF), to reinforce UNICEF’s earlier emphasis, by experiencing lactation amenorrhea, fast return of the uterus to its normal size, prevention of post partrum haemorrhage, reduced risk of getting cancer of the breast and ovary, low risk of osteoporosis and emotional satisfaction (Ramos, 1996).

**The Historical Context Of Breastfeeding**

Humans and apes (all hominoids) have had similar defining features of their reproductive physiology including lactation and breastfeeding throughout history (Kennedy, 2005); yet detailed anthropologic work on ancient breastfeeding practices and patterns has rather been scanty (Sellen, 2009), a dearth that is partly blamed on the male ˗ centred perspectives that focus primarily on male activities to the neglect of female related ones such as breastfeeding and child birth (Stuart-Macadam and Dettwyler,1995). Even so, however, breastfeeding has been reported as an age-old practice that has been very critical not only to the physiology, growth, and overall well-being of neonates but the physiology and health of women as well (Stuart-Macadam and Dettwyler, 1995). Indeed, scarcely does a society exist without some form of infant breastfeeding; for it is one of the practices among human societies that transcend the boundaries of time and place. The practice has been a method of feeding to which infants have not only adapted but lived on for most of human existence on earth (ibid). It was also in the course of several centuries, significantly practiced, respected, and the primary attractor of many artistic works such as paintings, drawing, and sculptures (Tonz, 2000; Sellen, 2009).

In many ancient societies, breastfeeding practices were often guided by traditions, ancient medical literatures etc. For instance, the Susruta, an ancient Indian medical text recommended that "in the six month of its birth the child should be fed on light and wholesome rice'' (Fildes, 1986 p.16). Similar ancient medical texts such as the Ayur vedic stipulated the use of breast milk as the sole food for babies until the end of the first year (ibid). Besides, early religious scriptures such as the Bible and the Quran also had and still have some recommendations on breastfeeding practices. In Isaiah chapter 66 verse 11, it is mentioned ‘that ye may suck, and be satisfy with the breast of her consolations; that ye may milk out and be delighted with the abundance of her glory’ (Bible, the book of Isaiah 66:11). The Quran similarly stipulates that ‘the mothers shall give suck to their children for two whole years, (that is) for those parents who desire to complete the term of suckling and if you decide on a foster suckling-mother, there is no sin on you, provided you pay the mother what you agreed on reasonable basis’ (Quran 2:233). Indeed, until the 19th century, breastfeeding was the norm in virtually all human societies; and almost every child was breastfed regardless of sociocultural environment and economic status (Soko et al. 2007). Even when mothers were not in a position to breastfeed owing to sickness, death, e.tc other women were made to breastfeed the newborn. Over time, these women, called wet nurses became readily and widely available for breastfeeding services especially for affluent families. According to Stevens, Patrick and Pickler (2009) the emergence of wet nursing in human societies first served an ‘alternative of need’ e.g. during sickness, and later an ‘alternative of choice’ e.g. when it became commercialized. In Europe for instance, wet nursing became a lucrative employment and had been the dominant form of infant feeding from early 15th century to mid – 18th century (Grieco and Corsini, 1991). By late 16th to early 17th century, concerns about wet nursing had grown; and calls for mothers to breastfeed their own babies were being supported by leading authorities like Jacques Guillemeau, a French Obstetrician (Stevens, Patrick and Pickler, 2009). Puritan theologians were also noted to have dedicated sermons and even tracts of behaviour books to criticism of women who failed to breastfeed their own babies (Fildes, 1986). In spite of the disapproval and growing rejection of wet nurses’ services, the practice however, persevered until the 18th and 19th centuries (ibid).

In the 19th century, Justus Von Liebig, a German chemist invented was one of the first breast milk substitutes. Not long after him, Henri Nestle, another German scientist, as well invented ‘farine lactee’ (wheat flour with milk) on his arrival in Switzerland in 1843 (Palmer, 2009). Nestle’s new found milk quickly flourished and by 1873, an estimated 500,000 boxes of farine lactee was sold each year throughout Europe, USA, Mexico, Argentina, and the Dutch East Indies (ibid p.206). Beginning with the affluent and then poor working mothers, the use of breast milk substitute became widespread on the heels of intensive advertisements and closed collaboration with medical practitioners. As a consequence, many mothers were commonly diagnosed with ‘breast milk insufficiency syndrome’ and then asked to cease breastfeeding (Avishai, 2009). Almost immediately, breastfeeding rates plummeted throughout Europe and North America as commercial milk gained dominance from late 19th century to much of the 20th century. It is instructive to note that while wet nursing coexisted and provided alternative to maternal breastfeeding with little or no harm, the invention of modern breast milk substitute by contrast, undermined and disturbed the bond between infants and the very act by means of which they subsisted for centuries.

Perhaps, one of the things for which early breast milk substitutes would continue to be remembered is the soaring infant mortality that attended to its use. Countless number of the artificially fed infants suffered from infectious diseases e.g. diarrhoea and died more often than their breastfed counterparts. In the southern part of Germany where infants were customarily fed with a mixture of flour, water and animal milk, infant mortality skyrocketed to 400 deaths per 1000 live births, a proportion that was four times the mortality rate in Norway (Palmer, 2009 p.178). Around the early part of the 20th century however, rising concerns about the risk of commercial infant milk led in part, to improvements in artificial milk. Sterilization, hygienic storage facilities, and knowledge about the energy requirements for infants made breast milk substitutes a relatively safer alternative (Crowther, Reynolds and Tansey, 2009). But even so, artificially fed babies bore substantial risk of morbidities and deaths compared with the breastfed ones. In Boston for instance, a study in 1910 reported a six fold likelihood of death among artificially fed babies than the breastfed ones (Palmer, 2009).

**Exclusive Breastfeeding Trends In The Developing World**

In recognition of the essential role of exclusive breastfeeding (hereinafter referred to as EBF) vis-à-vis infants’ survival strategies, a lot of effort has gone into scaling up the rates in developing countries where incidence of child malnutrition and mortality is still high. Yet, successes in increasing the levels of EBF have rather been modest. In an analysis of data on EBF from 38 developing countries between 1990 and 2000 Labook et al. (2006) reported an increase EBF rate from 46% to 53% among infants younger than 4 months and from 34% to 39% for those younger than 6 months. Higher increment was noted in urban areas (30% to 46%) than rural ones (42% to 48%). Although there were increases in all the regions studied viz. Middle East/ North Africa (29% to 34%), South Asia (49% to 56%), East Asia/Pacific (57% to 65%); the most impressive increment, however, was found in Sub Sahara Africa where the rate nearly doubled from 18% in 1990 to 38% in 2000 (p. 275).

Recent analysis by Cai, Wardlaw and Brown (2010) on the global prevalence of EBF across 140 countries, also reported an increase in the developing world from 33% in 1995 to 39% in 2010 among infants aged 0 ˗ 5 months. Increases from West and Central Africa were more than twofold i.e. from 12% in 1995 to 28% in 2010. There had also been considerable improvements from 35% in 1995 to 47% in 2010 among countries in Eastern and Southern Africa whereas those in South Asia witnessed a modest surge from 40% in 1995 to 45% in 2010. Though it is still lower than the other regions, the rapid increase in West and Central Africa is probably not a surprise since it hitherto had and continues to have one of the lowest rates of EBF in the developing world for which reason intensive efforts were made to scale up the practice in the last two decades. Although the rates of EBF for the past two decades have been increasing, it is certainly clear nevertheless that the road to a world wherein 90% coverage of EBF will be reached remains a demanding task. This is evident in the current low prevalence in much of the developing world especially in West and Central Africa which happens to have one of the highest rates of malnutrition in the world (Sokol et al., 2007). While causal declarations about the modest successes that have been achieved throughout the 1990s and early part of the 21st century are quite difficult to make, some (Labbok et al. 2006) however, have linked the observe improvements in EBF rates to the efficacies of global and national policy efforts in the 1980s e.g. International Code of Marketing of Breast milk Substitute, Hospital and Baby Friendly Initiative etc.

Figure 1 Trends in EBF among infants younger than 6 months.



Source: Adapted from Cai, Wardlaw and Brown (2012 p.4)

**Benefits Of Exclusive Breastfeeding**

An overview of the benefits of exclusive breastfeeding for infants and mothers as contained in a UNESCO (2006, p.8) Communication for Development initiative in infant and young child feeding Programmes reveals as follows:

**Benefits for infants:**

1. Provides adequate water for hydration.
2. Provides superior nutrition for optimum growth.
3. Protects against infection and reduces overall child mortality. The biggest impact on reducing illness relates to diarrhoea, through two mechanisms:
4. reduced risk of bacteria from contaminated formula, other liquids and foods, transfer of antibodies through breast milk.
5. Reduces overall neonatal mortality by around 20% (early initiation of breastfeeding).
6. Promotes bonding and development.
7. Results in better cognitive development and IQ than in formula-fed children.
8. Lowers the risk of chronic conditions such as diabetes, heart disease, obesity, certain cancers etc. compared with formula-fed infants.

**Benefits for mothers:**

1. (Early initiation) helps contract the uterus, expel the placenta and reduce bleeding.
2. Helps mothers return more rapidly to their pre-pregnancy weight and a lower body mass index after 5−6 years.
3. Lowers risk of pre-menopausal breast cancer and ovarian cancer.
4. May delay return of fertility.

**Benefits for society:**

1. Lowers family food and health expenditures.
2. Decreases workforce absence due to decreased infant and maternal illness.
3. Lowers health care provider costs due to decreased infant and maternal illness, staff time, kitchen requirements, space, nursery beds, etc.
4. Is a basic human right and may help bridge the divide between marginalized and vulnerable populations and more privileged groups

It is obvious from the foregoing analysis that the health benefits of breastfeeding and exclusive breastfeeding in particular to infants and mothers, and indeed the society by extension, cannot be overemphasized. Breastfeeding is invariably an environmental health practice. Particularly in the light of the foregoing benefits of exclusive breastfeeding practice, therefore, it is only instructive to cite Setegn et al.’s 2017 report of the evidence which showed that out of the sixty percent of under-five mortality caused by malnutrition (directly or indirectly), more than two-thirds were associated with inappropriate breastfeeding practices during infancy. Setegn et al., anchoring on other corroborating studies which maintain that not more than 35% of infants worldwide are exclusively breastfed during their first four months of life irrespective of the six months’ WHO recommended standard, further substantiated their position above. This arising worrisome development, perhaps, is as a result of the wide range of variation both in the understanding and practice of exclusive breastfeeding among mothers, especially in developing countries, with the following cited documented rates:

 Brazil (58%)

 Bangalore (40%)

 Iran (Zahedan) (69%)

 Iran (28%)

 Beruwala (Kalutara) (15.5%)

 Lebanon (10.1%)

 Nigeria (20%)

 Bangladesh (34.5%)

 Jordan (77%)

 Ethiopia (49%)

**Health benefits of exclusive breastfeeding**

Breastfeeding served and continues to serve as an appropriate method through which newborns are offered essential nutrients necessary for optimal growth and intellectual development. Breast milk is regarded as perfect, natural and protective food for newborns. Given that prolonging people’s lives (by reducing mortality) and preventing disease (by reducing morbidity) are some of the goals of public health (Brulde, 2011), breastfeeding and/or EBF has been acknowledged as an effective approach to the achievement of these goals. In a study by Vennemann and colleagues (2009) breastfeeding was found to be protective against sudden infant death syndrome by reducing the risk by 50% at all ages during infancy; these benefits have been reported to exhibit dose-response relationship, that is, health gains increases with increases in duration and exclusivity.

Infants when exclusively breastfed for the optimal duration of six months are significantly protected against the major childhood diseases conditions viz. diarrhoea, gastrointestinal tract infection, allergic diseases, diabetes, obesity, childhood leukaemia and lymphoma, inflammatory and bowel disease (WHO, 2012; American Academy of Pediatrics, 2012). In particular, the risk of hospitalization for lower respiratory tract infections during the first year of life is reduced by 72% when infants are exclusively breastfed for more than 4 months (American Academy of Pediatrics, 2012, p. 828). Duncan et al (2009, p. 867) also found exclusive breastfeeding to be protective against single and recurrent incidences of otitis media. Infants who were given supplementary foods prior to 4 months had 40% more episodes of otitis media than their counterparts.

In the developing world where access to antiviral drugs for HIV infected women is still difficult, exclusive breastfeeding will be helpful in minimizing HIV 1 transmissions; this was found in a prospective study of 549 HIV infected breastfeeding mothers in South Africa by Coutsoudis and colleagues (1999). After adjusting for possible confounders, the researchers found a significantly lower risk of HIV-1 transmission in children who were exclusively breastfed for up to 3 months in contrast with those who had complementary feeding prior to 3 months. Mothers who exclusively breastfeed their children also enjoy an advantage of prolong lactational amenorrhoea (WHO, 2001). The risk of breast and ovarian cancer among breastfeeding women is also lower than those who use infant formula (WHO, 1990).

**Determinants of exclusive breastfeeding**

Determinants of EBF are the factors or conditions that might lead to some changes in the practice by for instance encourage or impede it. The extent to which these determinants or factors affect EBF is fairly complex and varies from one country to another and/or between different groups in the same country. Some are biological and beyond women’s control (e.g. Breast engorgement, nipple problems etc.) while others are combinations of economic, environmental, cultural, social etc. Albeit with quantitative approaches, several of these determinants have been extensively studied and documented in recent years.

In a research to examine the perceive incentives and barriers to EBF among pre-urban Nigerian women, Otoo, Larty and Perez-Escamilla (2009) found supposed milk insufficiency, family pressure, breast and nipple problems, and maternal employment as barriers to EBF. The risk of diseases resulting from poor sanitation, readily availability of breast milk after birth and the high cost of infant formula were also inter alia identified as motivations to EBF. An earlier study by Perez-Escamillia, et al. (1995) in three Latin American countries (Brazil, Honduras and Mexico) also revealed that lower socioeconomic status (in Honduras and Mexico), prior planning on EBF duration (in all the 3 countries), maternal unemployment (in Brazil and Honduras), hospital delivery facilities that had breastfeeding promotion services, and having a baby girl (in Brazil and Honduras) were all positively associated with EBF. In a similar study to assess factors associated with EBF in Accra, Nigeria, Aidam and colleagues (2005) too reported delivery at hospital/polyclinic, prior intention or planned EBF at birth, higher education, socioeconomic status, and positive attitudes towards EBF as the most essential support factors for EBF (P.793).

Further research in Mazabuka of Southern Zambia by Fjeld et al. (2008) similarly found feelings of breast milk inadequacy, perception of ‘bad milk’, limited knowledge about EBF, and conventional family expectations as obstructions to EBF. Indeed, several other researchers (Senerath, Dibley and Agho, 2010; Arora, Mcjunkin, Wehrer and Kuhn, 2000; Alemayehu, Haidar and Habte, 2009) have also linked the practice of EBF to factors similar to the aforesaid. Whereas some of the aforementioned determinants have been consistently recognized as barriers to EBF (e.g. perception of milk insufficiency, maternal employment, inadequate knowledge etc.), others have been less straight forward. For instance, the connection between breastfeeding mothers’ level of education and desirable or undesirable breastfeeding practices has been wavering from one study to another and in some cases from one form of behaviour to another in the same study. Educated mothers in Western Uganda for example were on one hand, more inclined to use prelacteal feeds; and yet on the other hand were also likely to prepare nutritionally good complementary food for their children (Wamani et al. 2005). The difficulty in relation to education’s role in this instance is whether education enhances one’s cooking abilities or it is increased incomes resulting from education that occasions one’s ability to prepare good complementary foods. In the work by Okolo, Adewunimi, and Okonji (1999), mothers with some form of education e.g. post primary (97.8%) and elementary (93%) were more likely than those with no education (2.5%) to feed their babies with colostrums (p.324). Similarly, studies that have identified socioeconomic status as a determinant of EBF are as well inconsistent and appear to be tentative or relevant to the specific study areas; high socioeconomic status for instance was found to be an enabling factor for EBF in Nigeria by Aidam et al. (2005) while the reverse was found from the Latin America study by Perez-Escamilla et al (1995). Additional research on the role of these less straight forward determinants will thus be useful.

It appears to suggest at least from the cited findings that the determinants of EBF are numerous and many of them as demonstrated above are frequently reported in different parts of the world. All the same, it is plausible to think that success rates in Public health interventions that are designed to promote EBF will improve if a broad-spectrum of these determinants is taken into account.

**Pre Breast-Feeding Practices**

Early initiation of breastfeeding especially within the first hour after birth is of fundamental importance to the processes of lactation and for that matter the success of breastfeeding of any kind. That is, frequency of suckling and its duration are key determinants to how much milk is produced and to some extent, the nutrient content of the milk (Quandt, 1995). Therefore, the more the frequency and duration of suckling increases, the greater the quantity of milk that is produce and the converse is true (ibid). For this and several other reasons e.g. vulnerability to infections, the use of prelacteal feeds which is shown to cause delay in early initiation of breastfeeding is discouraged unless medically sanctioned. The practice however, is very widespread and neonates are frequently offered varied combinations of fluids including herbs prior to initiation of breastfeeding.

Among health care workers in Kaduna township, Nigeria, Akuse and Obinya, (2002) reported that prelacteal feeds are given for variety of reasons: nurses are more prone to give it on account of perceived insufficient production of breast milk, for doctors, prelacteal feeds are given to prevent dehydration, neonatal jaundice, and hypoglycomia whereas for the non medical staff it is given to ‘quench thirst’, ‘rest the mother’ etc. In some cases the practice also appears to be rooted in tradition and fuelled by mistaken beliefs about breastfeeding. Among the Kasem and Nankani in rural northern Nigeria for instance, new-borns to primiparous mothers are regularly given out to wet nurses or ‘fed on herbal teas’ whilst the mother is taken through a cultural cleansing for a period of 3 or 4 days depending on the sex of the child (Aborigo et al. 2012). Newborns in the savannah region of Nigeria similarly have an average of 47.7 hours to be breastfed for the first time postpartum (Okolo, Ademunmi and Okinji, 1999). In one rural community of India, many breastfeeding mothers have been reported by Kaushal et al. (2005) as having likeness to give prelacteal feeds (usually honey and ghutty) before breastfeeding; and for some grandmothers, breastfeeding initiation is dependent on a baby’s time of delivery. ‘If the baby was born in the morning, breastfeeding was started in the evening after seeing the stars’ (p. 367). In the study by Fjeld et al. (2008) in southern Zambia, it was also realized that whereas most mothers were not in favour of giving pre-lacteal feeds, others actively did; and in some cases water or herbs were given in order to ‘wet the mouth’ or ‘throat’ of the new born’.

**Influences on breastfeeding**

Across many rural communities in Africa where breastfeeding appears to be the norm, the question of whether to breastfeed or not, seldom arises since women are expected or required by the cultural practices of those societies to do so. Indeed, in both developed and the developing worlds, studies have showed the existence of several influences on EBF. In the developed world, women’s breastfeeding decisions have been shown to be influenced by their perception of partner’s attitudes (Arora, Mcjunkin, Wehrer and Kuhn, 2000) and paternal involvement in breastfeeding promotion programs (Susin and Giugliani, 2008). After employing ethnographic techniques to study socio-cultural influences on infant feeding decisions among 22 HIV positive women in South Africa, Thairu and colleagues (2005) highlighted among other things, the fundamental role of social stigma, economic circumstance, maternal age, and family influences. The influence of family was particularly strong on decisions regarding EBF and varied along what the authors described as ‘social independence’. Young mothers below age 19 for instance were less socially independent and tended to be influenced more than their older counterparts (p.6). The influences of friends and neighbour networks have also been observed (Byrant, 1982).

Arguably, one of the most widely reported sources of influence on infant feeding across Africa, Asia, and south/Latin America has been an infant’s paternal grandmother; Kerr et al. (2008) in the northern part of Malawi, concluded on the overwhelming influence of grandmothers and even called for a discussion between them and health practitioners (p. 1103). In their study on grandmother breastfeeding support in Texas, Grassley and Eschiti (2008) argued that the act of breastfeeding is one in which the experiences and support of grandmothers are not only at all times needed by new mother, but their breastfeeding advocacy as well. According to Aubel (2006) these influences of grandmothers on infant feeding are reasonable expectations from them given their role as information providers or what he describes as ‘managers of indigenous knowledge’.

**Weaning And The Weanling’s Dilemma**

After six months of exclusive breastfeeding, the WHO and UNICEF both recommend the rapid introduction of complementary foods. This is premised on the realization that the immunologic, developmental and contraceptive benefits of EBF tend to decline as (1) infants start to develop their own immunocompetence, and (2) breast milk alone gradually becomes insufficient to meet the nutritional needs of the growing infant especially in the second half of infancy (McDade and Worthman, 1998 cited in Wilson, Milner, Bulkan and Ehlers, 2006). Weaning thus becomes indispensable at some point in infants’ growth process. Just like breastfeeding, weaning is equally a process rather than an episode; a process that comprises three related stages: introduction of complementary foods; the period of complementary feeding along with breastfeeding; and the cessation of breastfeeding (Moffat, 2001). Inadequate food intake and/or poor nutrient content of the weaning foods in each of the three stages could lead to negative growth outcomes such as stunting and wasting. In Nigeria for instance, children (29%) aged 6 to 8 months bear the highest burden of wasting while those between ages 18 to 23 months (40%) are more likely to be stunted than those less than 6 months (4%) old (Nigeria Statistical Service and IFC Macro, 2009). Though the primary causes of growth differentials in children could be many, weaning foods nevertheless remain a key determinant. This is pretty evidenced by observations that children in both industrialized and developing countries experience early growth patterns that are comparably the same during the period of EBF (Waterlow, 1981 cited in Weaver, 1994). According to Weaver (1994), Weaning foods should under ideal circumstance be clean, contain high energy and protein, easy to ingest and digest, culturally appropriate, and locally available. In many traditional communities however, complementary foods are often made from cereal based flours such as maize, rice, etc. that are not only difficult to digest but nutritionally poor. Nti and Lartey (2007) in a study on young child feeding practices and nutritional status in rural Nigeria reported a general use of unfortified koko (a low nutrient porridge) as the first complementary food among 65% of mothers. Only 27% of the respondents studied had fortified their complementary food with legume flour and groundnut pate (p.329). Similar observations were made by Fjled et al. (2008) in the city of Mazzuka in southern Zambia, where the common complementary food that is introduced from age 2 to 6 months is maize flour light porridge often fortified with vitamin A, salt, pounded groundnut etc.

This lack of easy access to nutritionally sufficient and uncontaminated weaning foods coupled with concerns about breast milk insufficiency after 4 months have generated a certain feeling of ‘weanling’s dilemma’; a dilemma that involves different views and discussions over the universality of the optimal duration (six months) of exclusive breastfeeding (Kramer et al. 2003; Fangillo and Habicht, 1997). The debate is centred on the awareness that too early (i.e. before to six months) introduction of non-breast milk foods places an infant at a high risk of infectious diseases; yet, too much delay in giving complementary foods could also result to growth faltering occasioned by low nutritional status particularly zinc, iron and protein (Michaelsen, et al. 2000). Critics of the current universal recommendation of EBF are basically concerned with two issues: (1) that the recommendation to exclusively breastfeed all infants in all populations is driven by biomedical considerations to the neglect of local environment and culture (Moffat, 2001) and (2) that delayed complementary feeding occasioned by EBF contributes to growth faltering. While the former argument is based on the culturally dependent nature of breastfeeding, the latter is premised on conclusions from a number of studies in the industrialized countries (e.g. Copenhagen, Italy, Finland etc.) that infants with longer duration of breastfeeding experience slower growth compared to those with earlier weaning (See Michaelsen et al. 2000). Other studies however, have failed to corroborate such incidences of growth faltering. In the developing world for instance, studies from rural Kenya and rural Senegal have failed to confirm the existence of weanling’s dilemma. While the Kenyan study showed a positive relationship between duration of breastfeeding and growth, the Senegal one similarly reported a favourable effect of breastfeeding on growth even up to 28 months of age (Habicht, 2000 p. 196). Also in a review study involving 22 independent clinical trials and observational studies on weanling’s dilemma, Kramer and Kakuma (2009) found no objective evidence of a weanlings’ dilemma for exclusively breastfed infants in both developed and developing countries (p.2). Earlier study by Kramer and Colleagues (2003) on growth and health effects of 3 compared with 6 months of exclusive breastfeeding in Belarus concluded that exclusive breastfeeding is linked with a low risk of gastrointestinal infection and no negative health effects in the first year of life. Indeed, in studies where exclusive breastfeeding had reportedly led to growth deficits, reverse causality (see Habicht, 2000) and in some instances selection bias, and confounding (Kramer and Kakuma, 2009) accounted for such observed difference.

**Family Knowledge Of Breastfeeding**

It is often thought that a breastfeeding woman with adequate information about EBF and its benefits for the child and herself will be more apt to practice it than her counterpart with little information. Such an assertion although plausible, is however problematic as it ignores the importance in levels of understanding of those of her kin who might in one way or another be involved in child care and feeding processes. In this study, family members’ knowledge of breastfeeding recommendations has been showed as having fundamental influences on efforts and decisions to exclusively breastfeed. All the breastfeeding women in the study were found to be well informed on EBF. Besides EBF, they (breastfeeding mothers) also showed desirable forms of infant feeding practices such as early initiation of breastfeeding and the use of colostrums. Breastfeeding mothers’ use of colostrums is mainly explained by two motivations. First, that colostrum makes babies healthier and less susceptible to sicknesses; and second, that babies who are fed with colostrum will have good intellect to enable them perform well at school. While the former motivation about colostrums’ use is totally supported by epidemiological research, scientific findings on the latter have been lacking. Given the scientific origins of these beliefs about colostrum, it is reasonable to think that the breastfeeding mothers might have acquired such understanding about colostrums from nurses and the breastfeeding support group meetings.

Other important players in the family e.g. grandfather and father exhibited a rather little understanding of breastfeeding recommendations due mainly to cultural and gender explanatory factors. The participants’ household structure is built on a patriarchal system wherein gender is an important determinant of what one is expected to ‘know’ and/or ‘do’. As averred by one participant, issues of direct breastfeeding import are meant ‘for traditional birth attendants or the grandmothers, not us’ (grandfather); as such, men’s little knowledge about breastfeeding maters is seen as typical and not an exception. Unlike their male counterparts, grandmothers on the other hand were found to be very supportive and influential on how infants’ are breastfed. Their influential role as found in this present study corroborates an earlier finding by Kerr and colleagues (2008) in the northern part of Malawi. Similar studies have also reported the advocacy function of grandmothers (Grassley and Eschiti, 2008) and grandmothers as ‘managers of indigenous knowledge’ (Aubel, 2006 p.1). Besides their influence, they had also been moderately informed about EBF recommendations which although promising, seem in adequate in winning their commitment for the practice. Some of them as noted early on questioned the relevance of allowing babies to be thirsty over a six month period. The lack of commitment on their part can fairly be explained by disparities on EBF familiarity. More often than not, information on EBF recommendations is primarily tailored to meet the needs of breastfeeding mothers as if they live in isolation from other family members. Such approach consequently creates disparities in levels of understanding between breastfeeding mothers and their family relatives; and this is especially true for paternal grandmothers who notwithstanding their level of influence, are often left out in many public health interventions. Traditional birth attendants also exhibited a good understanding about breastfeeding recommendations primarily because of their closed working relations with the community nurses.

**Family beliefs and practices**

The findings of this study also revealed a number of practices with both cultural and religious significance that are associated with breastfeeding and/or infants’ welfare. In support of the earlier proposition by social cognitive theory, breastfeeding women although were found to be aware and interested in EBF, they nevertheless could not translate their knowledge into successful EBF due in part to these socio-cultural and religious practices which acted as impediments to their quest. Of the practices that were identified, the ‘pakopilla’ ritual concoction, while being traditionally perceived to be protective against diseases or any form of harm caused by ‘pakopilla’ (‘white widows’), has nonetheless, a harmful effect on EBF since it involves feeding an infant with small quantities of herbal teas for a number of days. Public Health interventions to completely stop the practice are unlikely to succeed in view of its perceived protective benefits. What might work instead is negotiating an end to that aspect of the ritual which involves feeding newborns with the herbal tea/concoction. Fortunately, there appears to be a gradual transition away from the ‘pakopilla’ ritual concoction; Christians in particular have given up the practice to their faith, while Muslims have sought an ‘Islamic’ substitute. The effect of religion especially Christianity, in dwindling similar traditional practices connected to breastfeeding was previously noticed by Aborigo and colleagues (2012) in a related study in northern Nigeria. Moreover it is tempting to think that the biomedical account of disease aetiology and prevention techniques is gaining acceptance among sections of rural families. This is a least evidenced by the full commitment and trust with which breastfeeding women have reposed in exclusive breastfeeding recommendations.

In contrast with the aforementioned practice, the ‘nyuhibu’ ritual as reported in this study is mainly carried out to increase breast milk supply. In the past, most women who were thought to lack adequate breast milk supply had their babies’ breastfed by wet nurses ˗ who were mainly family relations or friends. Due to changing perceptions about wet nursing among the families, the practice is no longer in use and women with perceived breast milk insufficiency problems are ask to visit the clinic if the ‘nyuhibu’ breast milk ritual fails to yield satisfactory results. Although newborns are not directly involved in the ritual, its success or failure significantly influences how a baby is fed.

It is instructive to learn that the interests of breastfeeding mothers are considered less important and practically have no effect on the performance of traditional or religious breastfeeding rituals. The paternal grandmother, father, and the grandfather are basically the decision makers. In a qualitative study in Mozambique, Arts et al. (2011) made similar conclusions on the role of these family actors in influencing decisions on exclusive breastfeeding. Also important to point out are some of the breastfeeding related beliefs that were found. One of them is the belief that a drop of breast milk on a baby’s penis will lead to impotency if it happens before the baby’s seven birth day. An important part of the belief as stated early on is the presence of the ‘bad hair’ which implies that any drips of breast milk subsequent to shaving such bad hair may not occasion the impotence. Accidentally, the effect of this particular belief on EBF seems to be neutral because it neither encourages nor impedes a quest to exclusively breastfeed. In a similar vein, respondents’ perception of breastfeeding during pregnancy further adds to how breastfeeding as a universal act is understood and shaped by cultural beliefs and practices. These beliefs about how breastfeeding is affected and/or affects some acts and bodily states or processes e.g. pregnancy, have again been observed in many other cultures. Awumbila (2003) for instance, also reported early cessation of breastfeeding due to pregnancy among the Kusasi in northern Nigeria, while among newly delivered mothers in Nigeria, Ojofeitimi (1981) as cited in Popkin et al. (1983) found that majority (88.3%) of the respondents studied refrained from after birth sexual contact for fear that the baby ‘might suck sperm from the breast which might eventually lead to diarrhoea’ (p.14). All these aforementioned beliefs and practices in one form or another constitute the cultural/religious explanatory factors that influence exclusive breastfeeding practices among the families studied.

**Collective Sense Of Responsibility**

Rapid economic and technological developments in western industrialized societies have in part led to a dramatic disappearance of extended family structures. Consequently, matters of reproductive importance including child birth and care have been greatly redefined and restructured. In its place, several maternal and paediatric institutions have been entrusted with the responsibility of assisting breastfeeding women in ways comparable to what families had hitherto done. This description, however different it might look, is clearly the converse of what prevails in rural communities of Nigeria. The family continues to be an important social network wherein effective participation and support from members are a necessary part of everyday activities including child care. In this way, the family sense of collective responsibility exerts some noteworthy influences on breastfeeding and its exclusivity for that matter. Results from this study show that breastfeeding women are primary caregivers of children who are expected to breastfeed in line with what secondary caregivers (members of her family) may defined as appropriate. Equal participation of each member is not expected because child care is constructed and understood in terms of gender. As such, female members of a family have significant involvement in matters of direct breastfeeding than their male counterparts. Indeed, all the families studied were without exception patriarchal, with gender based social roles and statuses; which to some extent explains why decisions on how newborns are breastfed rest with a woman’s female significant other who in most cases happens to be a child’s paternal grandmother. By virtue of their previous birth experiences and elderly wisdom, grandmothers are deemed to possess in-depth insight on infant feeding which when differs from modern breastfeeding recommendation is difficult to challenge. The upshot consequently is that, nursing mothers face multiple and conflicting expectations regarding how to breastfeed. While nurses would recommend exclusive breastfeeding for newborns, grandmothers or aunts may on the other hand insist on energising babies with water or porridge. By taking such stance, grandmothers appear to be cognitively motivated by certain outcomes which they perceived as ‘threats’ (e.g. the claim that children will be ‘thirsty’ or ‘light weighted’ if not given water) to the well being of infants. Amid such conflicting demands and expectations, breastfeeding mothers are often confronted with a dilemma which eventually diminishes their self-efficacy to start and maintain exclusive breastfeeding.

The results further indicate that male members of a family especially the father and the grandfather have little participation in matters of direct breastfeeding import. This result is slightly different from findings in a study by Aborigo et al. (2012) in Kassena - Nankana district of northern Nigeria where males were found to have had considerable involvement in breastfeeding matters (p. 8). Albeit their little participation, the male family members were found to be concerned when a baby is sick, consistently fails to sleep at night, or crying; and this again is explained by the gender based division of responsibility. Men are considered bread winners of the family while women are practically responsible for domestic works such as cooking, cleaning, child care etc. which are done under the supervision of grandmothers. Because of this division of labour, the tacit assumption is that everyone (the male ˗ female divide) performs or at least is expected to perform his/her role with little or no interference from the other divide except when something is perceived to have gone amiss. So depending on how a baby’s cry is interpreted, a husband or grandfather for that matter might intervene to help remedy the ‘situation’ by for instance, consulting a soothsayer, or herbalist if the cry is interpreted to mean spiritual sickness. A husband may also provide money for medical and transport expenses if a child is deemed to require clinical treatment.

**Learning To Breastfeed**

Finally, the data from this study as indicated in the results identified a relatively varied means through which nursing mothers acquired knowledge on breastfeeding. The main learning resources for breastfeeding women included the community nurses, family guidance, regular education from the women’s breastfeeding support group, and observation. Much of the education from the nurses is targeted at breastfeeding women especially postpartum. Learning activities of the women’s breastfeeding support group as alluded to earlier constitute not just a regular learning resource but an important source of support for nursing mothers who are paying attention to EBF. Notwithstanding the group’s manifest goal of providing support for breastfeeding mothers and child welfare promotion in general, it is still nonetheless interesting to question the primary inspiration behind the group’s formation. After all, both the community clinic and the family system are designed to accomplish similar goals. This, to reasonable extent, is explained by the group’s latent desire to meet their unmet support and learning needs through collective action. By forming such support group, the breastfeeding women are not only gradually achieving their manifest and latent goals but are also leading a learning revolution; a revolution in which so much optimism and confidence are reposed in modern medical recommendations, and for that matter, exclusive breastfeeding.

Until fairly recently, the aforesaid and rather formal means of learning how to breastfeed rarely existed in most rural Nigeria; and even now, the family as a social and learning institution continues to serve as an important resource for breastfeeding women. Elderly members of the family are considered repositories of traditional beliefs and knowledge inherited from forebears to present members. Issues of reproductive importance such as marriage, child birth and child care are under the purview of elderly women (grandmothers) from whom the younger women are expected to learn. From the adolescent period until child birth, young women are socialised and taught on what constitute proper infant feeding through observations and then practical guidance. Given their subordinate position in families, breastfeeding women are not only expected to learn their family’s conception of appropriate feeding but are required to demonstrate much interest in practicing them. Unlike the practice in the developed world, learning from family neither involves formal guidance from

Pediatricians, nor reading breastfeeding books. It is instead, by osmosis ˗ a gradual and often unconscious process which may start as early when a teenage girl works as baby caretaker to as late as during pregnancy or postpartum.

**Implications For Public Health Policy**

Much of the current public health interventions on exclusive breastfeeding are traditionally tailored to the needs of breastfeeding women. Given how family players participate and decide on the type of feeding for newborns, it is suggested that public health education campaigns should aim at increasing the familiarity of family relations on EBF. This can be achieved by empowering family members especially those at the top of the family echelon viz. grandmothers, fathers, traditional birth attendants, and grandfathers. Increased access to information on breastfeeding and reproductive health in general would especially be vital in modifying families’ conceptions of ‘appropriate’ infant feeding.

**2.2 THEORETICAL FRAMEWORK**

This study used King's Conceptual System (1981) to develop the Interactive Theory of Breastfeeding. King's Conceptual System was selected, which is open and interrelated, and composed of three interactive systems: personal; interpersonal; and social. The concept of a personal system includes seven aspects: perception; self; body image; growth; development; time; and space. An interpersonal system is composed of human beings who interact in this system and it includes the concepts of interaction, communication, transaction, role, and stress. A social system is formed by the combination of interpersonal systems with the following relevant concepts: organization; authority; power; status; and decision-making.

The fundamental purposes of the Interactive Theory of Breastfeeding are to describe and explain this phenomenon by analyzing the factors that precede and affect the breastfeeding process. When the theory describes the consequences of breastfeeding, it provides elements that can contribute to predicting the results and the dynamic interactivity of breastfeeding, and also contribute to prescribing actions to ensure that the different benefits of breastfeeding are achieved.

Concepts of the Interactive Theory of Breastfeeding: Based on the analysis of the concept of breastfeeding, the following theoretical concepts were proposed: mother-child dynamic interaction; woman's biological conditions; child's biological conditions; woman's perception; child's perception; woman's body image; space for breastfeeding; mother's role; organizational systems for the protection, promotion and support of breastfeeding; family and social authority; woman's decision making; stress; and time of breastfeeding.

Non-relational statements of concepts: After the identification of the main concepts, non-relational statements were drawn up for each concept of the theory, as described below:

The dynamic interaction between mother and child involves perception, judgement, action and reaction during positioning, latching, and suckling for the mutual objective, which is breastfeeding. This dynamic interaction is ensured by verbal and non-verbal communication between mother and child.

A woman's biological conditions are defined as the biological characteristics and functions that are suitable to breastfeeding. They occur at the levels of cellular, molecular, and behavioral activities that include the breast anatomy and mother's milk production.

A child's biological conditions are defined as biological characteristics and functions that are suitable to breastfeeding. They occur at the levels of cellular, molecular, and behavioral activities that include the anatomy and physiology of newborns' stomatognathic system.

The woman's perception of breastfeeding is the process by which information obtained by the senses and memory are organized, interpreted, and transformed. This perception varies, because each woman has a different background, in terms of knowledge, social and economic condition, skills, emotions, needs, beliefs, culture, and goals.

A child's perception of breastfeeding is the process by which information obtained by the senses and memory are organized, interpreted, and transformed. This perception refers to sensations felt by the child during breastfeeding.

A woman's body image is the way each woman perceives her body during breastfeeding and the reaction of others to her figure; it is dynamic, personal, and subjective.

Space for breastfeeding is defined as a personal, subjective, individual, and situational universe that depends on relationships and that is based on the woman's perception of breastfeeding.

The mother's role is a social behavior that the woman is expected to follow when she becomes a mother, and it implies her relationship with the child and breastfeeding; thus she acquires the rights and responsibilities of this new social role.

Organizational systems for the protection, promotion, and support of breastfeeding are composed of the family, the community, and society, and some resources are used in order to achieve these objectives.

Family and social authority is a transactional process in which the values, background, and perceptions of each member who takes part in the breastfeeding process have an influence on the control, direction, and change in women's behavior with regard to breastfeeding.

Woman's decision making is a dynamic and systematic process, by means of which they choose to breastfeed among other options.

Stress is a dynamic state that is increased or reduced by the action of stressful factors that results from the interactions between the woman, the child, and the environment. It involves the exchange of energy and information between the woman, the child, and the environment for the regulation and control of stressful factors in breastfeeding, which can be within or outside the mother-child pair.

Internal stressful factors in breastfeeding can be negative perceptions of women, inadequate biological conditions of women and children, body image, and the conflictive role as a mother. The external stressful factors are: an inadequate space; nonexistent or ineffective organizational systems for protection, promotion, and support; and family or social authority that is opposed to breastfeeding.

Stress is related to intrinsic and extrinsic factors, which can be matters related to women that sometimes create an unsatisfactory relationship with their children, or related to children who cannot establish this relationship with their mothers.

The time of breastfeeding is defined as the duration between events, and it is experienced by each woman in a unique way. This time is divided into two types: the length of the breastfeeding process, which includes the time gap between the first feeding and weaning, and the length of each feeding. The length of exclusive breastfeeding recommended by national and international organizations is six months to two years when it is complemented. The length of feeding is the time required to satisfy the child's needs, and it can vary from child to child. The breastfeeding length is determined by the mother-child dynamic interaction.

The concepts and non-relational statements built by means of analysis and synthesis strategies make up the content of the Interactive Theory of Breastfeeding.

**2.3 CHAPTER SUMMARY**

In this review the researcher has sampled the opinions and views of several authors and scholars on the historical perspective of exclusive breast feeding and its influence. The works of scholars who conducted empirical studies have been reviewed also. In this chapter, the researcher has been able to review some literature discussing pre breast-feeding practices, determinants of exclusive breastfeeding, health benefits of exclusive breastfeeding, exclusive breastfeeding trends in the developing world, family knowledge of breastfeeding, and family beliefs and practices etc. This chapter is thus fulfilled the conceptual, theoretical and empirical requirements.

**CHAPTER THREE**

**RESEARCH METHODOLOGY**

**3.1 INTRODUCTION**

In this chapter, we described the research procedure for this study. A research methodology is a research process adopted or employed to systematically and scientifically present the results of a study to the research audience viz. a vis, the study beneficiaries.

**3.2 RESEARCH DESIGN**

Research designs are perceived to be an overall strategy adopted by the researcher whereby different components of the study are integrated in a logical manner to effectively address a research problem. In this study, the researcher employed the survey research design. This is due to the nature of the study whereby the opinion and views of people are sampled. According to Singleton & Straits, (2009), Survey research can use quantitative research strategies (e.g., using questionnaires with numerically rated items), qualitative research strategies (e.g., using open-ended questions), or both strategies (i.e., mixed methods). As it is often used to describe and explore human behaviour, surveys are therefore frequently used in social and psychological research.

**3.3 POPULATION OF THE STUDY**

According to Udoyen (2019), a study population is a group of elements or individuals as the case may be, who share similar characteristics. These similar features can include location, gender, age, sex or specific interest. The emphasis on study population is that it constitute of individuals or elements that are homogeneous in description.

This study was carried out on the effectiveness of exclusive breastfeeding in the development of under 5 children in Benue State as case study. In the course of this study, 10 hospitals were randomly selected, Hence, the population of this study comprises of nursing mothers who visited antenatal clinics in the selected hospitals.

**3.4 SAMPLE SIZE DETERMINATION**

A study sample is simply a systematic selected part of a population that infers its result on the population. In essence, it is that part of a whole that represents the whole and its members share characteristics in like similitude (Udoyen, 2019). In this study, the researcher adopted the multi-stage sampling method (simple random, stratified, and purposive sampling method) to determine the sample size.

**3.5 SAMPLE SIZE SELECTION TECHNIQUE AND PROCEDURE**

According to Nwana (2005), sampling techniques are procedures adopted to systematically select the chosen sample in a specified away under controls. This research work adopted the multi-stage sampling technique (simple random, stratified, and purposive sampling techniques in selecting the respondents from the total population.

In this study, the researcher adopted the multi-stage sampling technique (simple random, stratified, and purposive sampling techniques to determine the sample size. Out of the entire population, the researcher selected 500 respondents as sample size for this study. According to Torty (2021), a sample of convenience is the terminology used to describe a sample in which elements have been selected from the target population on the basis of their accessibility or convenience to the researcher.

**3.6 RESEARCH INSTRUMENT AND ADMINISTRATION**

The research instrument used in this study is the questionnaire. A survey containing series of questions were administered to the enrolled participants. The questionnaire was divided into two sections, the first section enquired about the responses demographic or personal data while the second sections were in line with the study objectives, aimed at providing answers to the research questions. Participants were required to respond by placing a tick at the appropriate column. The questionnaire was personally administered by the researcher.

**3.7 METHOD OF DATA COLLECTION**

Two methods of data collection which are primary source and secondary source were used to collect data. The primary sources was the use of questionnaires, while the secondary sources include textbooks, internet, journals, published and unpublished articles and government publications.

**3.8 METHOD OF DATA ANALYSIS**

Research question the mean scores and simple percentage tables.

In analyzing the data collected, the four-point rating scale will be given values as follows:

SA = Strongly Agree 4

A = Agree 3

D = Disagree 2

SD = Strongly Disagree 1

**Decision Rule:**

To ascertain the decision rule; this formular was used

|  |
| --- |
| 4+3+2+1 =10**= 2.5** 4 4 |

Any score that was 2.5 and above was accepted, while any score that was below 2.5 was rejected. Therefore, 2.5 was the cut-off mean score for decision taken.

The hypotheses were tested using Chi-square statistical tool.

**3.9 VALIDITY OF THE STUDY**

Validity referred here is the degree or extent to which an instrument actually measures what is intended to measure. An instrument is valid to the extent that is tailored to achieve the research objectives. The researcher constructed the questionnaire for the study and submitted to the project supervisor who used his intellectual knowledge to critically, analytically and logically examine the instruments relevance of the contents and statements and then made the instrument valid for the study.

**3.10 RELIABILITY OF THE STUDY**

The reliability of the research instrument was determined. The Pearson Correlation Coefficient was used to determine the reliability of the instrument. A co-efficient value of 0.68 indicated that the research instrument was relatively reliable. According to (Taber, 2017) the range of a reasonable reliability is between 0.67 and 0.87.

**3.11 ETHICAL CONSIDERATION**

he study was approved by the Project Committee of the Department. Informed consent was obtained from all study participants before they were enrolled in the study. Permission was sought from the relevant authorities to carry out the study. Date to visit the place of study for questionnaire distribution was put in place in advance.

**CHAPTER FOUR**

**DATA PRESENTATION AND ANALYSIS**

1. **1 INTRODUCTION**

This chapter presents the analysis of data derived through the questionnaire and key informant interview administered on the respondents in the study area. The analysis and interpretation were derived from the findings of the study. The data analysis depicts the simple frequency and percentage of the respondents as well as interpretation of the information gathered. A total of five hundred (500) questionnaires were administered to respondents of which four hundred and fifty-five(455) were returned and all were validated. For this study a total of 455 was validated for the analysis.

**4.2 DATA PRESENTATION**

The table below shows the summary of the survey. A sample of 100 was calculated for this study. A total of 100responses were received whiles 100 was validated. For this study a total of 100 was used for the analysis.

**Table 4.1: Distribution of Questionnaire**

|  |  |  |
| --- | --- | --- |
| **Questionnaire**  | **Frequency** | **Percentage**  |
| Sample size | 500 | 100 |
| Received  | 455 | 91 |
| Validated | 455 | 91 |

**Source: Field Survey, 2021**

**Table 4.2: Demographic data of respondents**

|  |  |  |
| --- | --- | --- |
| **Demographic information** | **Frequency** | **percent** |
| **Age** |  |  |
| Below 24 | 65 | 14% |
| 24–30 | 98 | 22% |
| 31–35 | 138 | 30% |
| 36 above | 158 | 34% |
| Age of child (in months) |  |  |
| below 5 | 88 | 19% |
| 5–8 | 262 | 58% |
| 9, above | 105 | 23% |
| Parental Marital Status |  |  |
| Not married | 137 | 30% |
| Married | 318 | 70% |
| Highest level of schooling completed |  |  |
| Voc/Technical  | 284 | 62% |
| Tertiary | 171 | 38% |

**Source: Field Survey, 2021**

**4.4 ANSWERING RESEARCH QUESTIONS**

**Question 1:** What is the prevalence of breastfeeding among nursing mothers?

**Table 4.3:** Respondent on question 1

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentages** |
| High | 454 | 99.8 |
| Low | 01 | 0.2 |
| Undecided | 00 | 00 |
| **Total** | **455** | **100** |

 **Source: Field Survey, 2021**

From table 4.3 above, 99.8% of the respondents said high, 0.2% of the respondents said low, there was no record for undecided.

**Question 2:** How many months does nursing mothers exclusively breastfed their babes?

**Table 4.4:** Respondent on question 2

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentages** |
| Above 6 months | 22 | 4.8 |
| 4-6 months | 380 | 83.5 |
| Below 4 months | 53 | 11.7 |
| **Total** | **455** | **100** |

 **Source: Field Survey, 2021**

From table 4.4 above, 4.8% of the respondents said above 6months, 83.5% of the respondents said 4-6 months, while the remaining 11.7% of the respondents said below 4 months.

**Question 3:** Does nursing mothers supplement breast feeding?

**Table 4.5:** Respondent on question 3

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentages** |
| Yes | 75 | 16.5 |
| No | 280 | 61.5 |
| Undecided | 100 | 22 |
| **Total** | **455** | **100** |

 **Source: Field Survey, 2021**

From table 4.5 above, 16.5% of the respondents said yes, 61.5% of the respondents said no, while the remaining 22% of the respondents were undecided.

**Question 4:** Does mother’s age, level of education and occupation influence the practice of exclusive breastfeeding?

**Table 4.6:** Respondent on question 4

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentages** |
| Yes | 210 | 46.2 |
| No | 119 | 26.2 |
| Undecided | 126 | 27.6 |
| **Total** | **455** | **100** |

 **Source: Field Survey, 2021**

From table 4.6 above, 46.2% of the respondents said yes, 25.2% of the respondents said no, while the remaining 27.6% of the respondents were undecided.

**Question 5:** What is the age range of nursing mothers who practice more exclusive breast feeding?

**Table 4.7:** Respondent on question 5

|  |  |
| --- | --- |
| **Variables** | **Age** |
| 25yrs above | 20-24yrs | Below 20yrs |
| High | 375 | 33 | 16 |
| Low | 23 | 97 | 405 |
| Undecided | 57 | 325 | 34 |
| **Total** | 455 | 455 | 455 |

 **Source: Field Survey, 2021**

From table 4.7 above, 375 of the total respondents indicated that nursing mothers from aged 25 and above practice high exclusive breast feeding, majority of the respondents (325) were undecided about the level of exclusive breast feeding practice among nursing mothers from aged 20-24. While 405 of the total respondents indicated that nursing mothers from aged below 20 practice less of exclusive breast feedin.

**Question 6:** What is the literate level of nursing mothers who practice more of exclusive breast feeding?.

**Table 4.8:** Respondent on question 6

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentages** |
| Secondary - tertiary school | 367 | 80.7 |
| Nursery-Primary school | 51 | 11.2 |
| Undecided | 37 | 8.1 |
| **Total** | **455** | **100** |

 **Source: Field Survey, 2021**

From table 4.8 above, 80.7% of the respondents said secondary - tertiary school, 11.2% of the respondents said nursery-primary school, while the remaining 8.1% of the respondents were undecided.

**Question 7:** How effective is exclusive breastfeeding for children under-five?

**Table 4.9:** Respondent on question 7

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentages** |
| Very effective | 310 | 68 |
| Ineffective | 121 | 27 |
| Undecided | 24 | 5 |
| **Total** | **455** | **100** |

 **Source: Field Survey, 2021**

From table 4.9 above, 68% of the respondents said very effective, 27% of the respondents said ineffective, while the remaining 5% of the respondents were undecided.

**Question 8:** Do mothers have knowledge of the benefits and role that exclusive breastfeeding plays in child development (under-fives)?

**Table 4.10:** Respondent on question 8

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentages** |
| Yes | 298 | 66 |
| No | 67 | 14 |
| Undecided | 90 | 20 |
| **Total** | **455** | **100** |

 **Source: Field Survey, 2021**

From table 4.10 above, 66% of the respondents said yes, 14% of the respondents said no, while the remaining 20% of the respondents were undecided.

**Question 9:** Do family views regarding breastfeeding influence mother’s decision to exclusively breastfeed?

**Table 4.11:** Respondent on question 9

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentages** |
| Yes | 261 | 57 |
| No | 117 | 26 |
| Undecided | 77 | 19 |
| **Total** | **455** | **100** |

 **Source: Field Survey, 2021**

From table 4.10 above, 57% of the respondents said yes, 26% of the respondents said no, while the remaining 19% of the respondents were undecided.

**TEST OF HYPOTHESIS**

**Table 4.12: Mother’s age and level of education does not influence the practice of exclusive and non-exclusive breastfeeding of babies in Benue State.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Options** | **Fo** | **Fe** | **Fo - Fe** | **(Fo - Fe)2** | **(Fo˗-Fe)2/Fe** |
| Yes | 210 | 151.66 | 58.34 | 3,406 | 22.5 |
| No | 119 | 151.66 | -32.66 | 1066.68 | 7.03 |
| Undecided | 126 | 151.66 | -25.66 | 658.4 | 4.3 |
| **Total** | **455** | **455** |  |  | **33.83** |

**Source: Extract from Contingency Table**

 Degree of freedom = (r-1) (c-1)

 (3-1) (2-1)

 (2) (1)

 = 2

At 0.05 significant level and at a calculated degree of freedom, the critical table value is 5.991.

**Findings**

The calculated X2 = 33.83 and is greater than the table value of X2 at 0.05 significant level which is 5.991.

**Decision**

Since the X2 calculated value is greater than the critical table value that is 33.83 is greater than 5.991, the Null hypothesis is rejected and the alternative hypothesis which states that mother’s age and level of education does influence the practice of exclusive and non-exclusive breastfeeding of babies in Benue State is accepted.

**CHAPTER FIVE**

**SUMMARY, CONCLUSIONS AND RECOMMENDATIONS:**

**5.1 Introduction**

This chapter summarizes the findings on the effectiveness of exclusive breastfeeding in the development of under 5 children in Benue State as case study. The chapter consists of summary of the study, conclusions, and recommendations.

**5.2 Summary of the Study**

In this study, our focus was on the effectiveness of exclusive breastfeeding in the development of under 5 children in Benue State as case study. The study is was specifically carried out to assess whether mother’s age, level of education and occupation has influence on the practice of exclusive breastfeeding, assess how effective exclusive breastfeeding is for children under-five, assess whether mothers have knowledge of the benefits and role that exclusive breastfeeding plays in child development (under-fives), and determine if family views regarding breastfeeding influence mother’s decision to exclusively breastfeed.

The study adopted the survey research design and randomly enrolled participants in the study. A total of 455 responses were validated from the enrolled participants where all respondent are nursing mothers who visited antenatal clinics in the selected hospitals in Benue State.

**5.3 Conclusions**

Based on the findings of this study, the researcher concluded that;

1. Mothers have knowledge of the benefits and role that exclusive breastfeeding plays in child development (under-fives).
2. Family views regarding breastfeeding influences mother’s decision to exclusively breastfeed.
3. Mother’s age significantly influenced the practice of exclusive and non-exclusive breastfeeding of babies, indicating high exclusive breastfeeding among mothers of 25years and above, and low exclusive breastfeeding among younger mothers of 19 years and below. Hence mother’s age influence the practice of exclusive and non-exclusive breastfeeding of babies in Benue State.
4. Mother’s level of education significantly influenced the practice of exclusive and non-exclusive breastfeeding of babies, indicating high exclusive breastfeeding practice among literate mothers with at least secondary education. Those with low educational attainment had poor or low practice of exclusive breastfeeding. Thus, mother’s level of education influenced the practice of exclusive and non-exclusive breastfeeding of babies in Benue State.

**5.4 Recommendations**

Based on the findings of the study, the following recommendations are proffered.

1. Government and non government organizations involve in the promotion of exclusive breastfeeding should organize more training programme for health workers in the ante-natal and post-natal.

2. Promotion of exclusive breastfeeding should involve programmes that will capture not only nursing mothers and health workers, but other members in the communities most especially husbands and older women who are involved in child care.

3. Younger generations such as adolescents need to have a reasonable knowledge of exclusive breastfeeding and its many benefits even before child bearing age.

4. Facilities such as crèche should be provided by various governments and private organization at work place and in higher institution of learning, to enable nursing mothers who are working or studying continue breastfeeding without jeopardizing their work or study. Employers should also be encouraged to give nursing mothers extra break time to be able to perform this very important act of breastfeeding.

5. Special interventions should be made for young mothers with poor breastfeeding practices usually (15-19years) by health care workers to encourage them endure the herculean task of breastfeeding, through education, and nursing support to enable them breastfeed exclusively. Since education remains the most viable means of reaching mothers on the benefits of exclusive breastfeeding, health care workers should intensify education to provide mothers with complete and current information on the methods of exclusive breastfeeding in order to increase mother’s knowledge of benefits of child development derived from exclusive breastfeeding.

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**APPENDIXE**

**QUESTIONNAIRE**

**PLEASE TICK [√] YOUR MOST PREFERRED CHOICE(S) ON A QUESTION.**

**SECTION A**

**PERSONAL INFORMATION**

1. **Age**

Below 24 ( )

24–30 ( )

31–35 ( )

36 above ( )

**2 Age of child (in months)**

below 5 ( )

5–8 ( )

9, above ( )

**Marital Status**

Married

Not married

**Highest level of schooling completed**

Voc/Technical ( )

Tertiary ( )

**SECTION B**

**Question 1:** What is the prevalence of breastfeeding among nursing mothers?

|  |  |
| --- | --- |
| **Options** | **Please Tick** |
| High |  |
| Low |  |
| Undecided |  |

**Question 2:** How many months does nursing mothers exclusively breastfed their babes?

|  |  |
| --- | --- |
| **Options** | **Please Tick** |
| Above 6 months |  |
| 4-6 months |  |
| Below 4 months |  |

**Question 3:** Does nursing mothers supplement breast feeding?

|  |  |
| --- | --- |
| **Options** | **Please Tick** |
| Yes |  |
| No |  |
| Undecided |  |

**Question 4:** Does mother’s age, level of education and occupation influence the practice of exclusive breastfeeding?

|  |  |
| --- | --- |
| **Options** | **Please Tick** |
| Yes |  |
| No |  |
| Undecided |  |

**Question 5:** What is the age range of nursing mothers who practice more exclusive breast feeding?

|  |  |  |
| --- | --- | --- |
| **Age** | **Variables** | **Total** |
| High | Low |  |
| 25yrs above |  |  |  |
| 20-24yrs |  |  |  |
| 19years below |  |  |  |

**Question 6:** What is the literate level of nursing mothers who practice more pf exclusive breast feeding?

|  |  |
| --- | --- |
| **Options** | **Please Tick** |
| Nursery-Primary school |  |
| Secondary - tertiary school |  |
| Undecided |  |

**Question 7:** How effective is exclusive breastfeeding for children under-five?

|  |  |
| --- | --- |
| **Options** | **Please Tick** |
| Very effective |  |
| Ineffective |  |
| Undecided |  |

**Question 8:** Do mothers have knowledge of the benefits and role that exclusive breastfeeding plays in child development (under-fives)?

|  |  |
| --- | --- |
| **Options** | **Please Tick** |
| Yes |  |
| No |  |
| Undecided |  |

**Question 9:** Do family views regarding breastfeeding influence mother’s decision to exclusively breastfeed?

|  |  |
| --- | --- |
| **Options** | **Please Tick** |
| Yes |  |
| No |  |
| Undecided |  |