KNOWLEDGE, ATTITUDE AND PRACTICE OF INFANT AND YOUNG CHILD FEEDING AMONG MOTHERS WITH CHILD (0-24 MONTHS) IN UMUAHIA SOUTH L.G.A.

BY

KALU MARY OKEREKE

REG. NO: 20164994758

A THESIS SUBMITTED TO THE DEPARTMENT OF PUBLIC HEALTH,

SCHOOL OF HEALTH TECHNOLOGY

FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE

AWARD OF MASTERS DEGREE (MPH) IN PUBLIC HEALTH TECHNOLOGY

MAY, 2021

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CERTIFICATION

This is to certify that this work **"Knowledge, Attitude and Practice of Infant and Young Child Feeding among Mothers with Child (0-24 Months) in Umuahia South L.G.A, Abia State"** was carried out by **Kalu Mary Okereke (20164994758)** in partial fulfillment for the award of the degree of (MPH in Health Promotion) in the Department of Public Health, Federal University of Technology Owerri.

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DEDICATION

This work is dedicated to my late parent Chief and Lolo Ogbonnaya Kalu for their dream come through.

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ABSTRACT

Malnutrition is the commonest cause of death of children under 2years of age in the rural areas, this study determined the knowledge, attitude and practice of infant and young child feeding among mothers with child 0-24months in Umuahia South Local Government Area of Abia State which is located in Abia Central Senatorial Zone, bounded in the North by Umuahia North Local Government Area, in the South by Isiala Ngwa South Local Government Area, in the East by Ikputu in Isiala Ngwa North Local Government Area, and in the West by Mbaise in Imo State. Descriptive study design was used for the study, the sample size of 372 was drawn from the target population of 5325 nursing mothers attending postnatal clinics in the study area. The respondents were selected using the random sampling technique. Structured questionnaire was the instrument used for data collection, the data collected were analyzed using statistical package for social science (SPSS). The result showed that 332 (89-2%) had good knowledge of infant and young child feeding, more respondents 330(88.7%) knew the correct meaning of exclusive breastfeeding, more respondents 229(77.7%) knew when to commence complimentary feeding which is at 6months, while only 167(44.9%) had good knowledge of the consistency of the child's food. Also more respondents 239(64.2%) strongly agreed that the baby should be exclusively breastfed for the first 6months of life, more respondents 199(53.9%) strongly agreed that colostrums should not be thrown away while majority 310(83.3%) strongly agreed that there is no difficulty in exclusive breastfeeding. More respondents 250(67.2%) were of the opinion that water should not be given to the baby for the first months of life. From the findings, there was overall high level knowledge score of exclusive breastfeeding 330(88.7%) moderate knowledge on complimentary feeding 120(46%) and low knowledge on weaning, also there was positive attitude towards exclusive breastfeeding 310(83.3%) as compared the negative attitude of 10(2.7%) on responses of difficulties in exclusive breastfeeding, more respondents 272(73.1%) practice rooming in which is the mother sleeping with the baby in the same bed while only 100(26.6%) does not practice rooming in. There is still poor knowledge on complimentary feeding, negative attitude towards intake of colustrum as many respondents believed that colustrum should be thrown away and poor practice because most of the respondents still give water to a child less than 6months. There is need for further awareness creation among mothers in the rural community in other to embrace adequate infant and young child feeding practice in Umuahia South Local Government Area and Abia State in general to improve the nutritional status of children under 2years of age. There is also need to increase the knowledge, attitude and practice(KAP) of mothers in the rural areas of the State through health information ,education and communication (IEC) and follow-up activities in the communities will be of great importance to sustain the effort of the health facilities and recruitment of more health workers in rural areas to educate mothers on the need for proper practice of infant and young child feeding, there is also need for further studies in the LGAs and the State at large.

key words: Knowledge, Attitude, Practice, Infant,Feeding, Young Child

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Adequate nutrition is fundamental to the development of any child to be able to achieve its full potential. Consequences of poor nutrition in early childhood include significant illnesses, delayed mental and physical development and death.(NPHCDA, 2012). Infant and young child feeding is the process of feeding the new-born exclusively for 6 months with human breast milk, and the timely introduction of complementary feeding including breast milk until the baby is 2years old, while exclusive breastfeeding is the practice of feeding an infant with breast milk (including expressed breast milk) only, without any food or drink, nor even water except drops or syrups consisting of vitamins, minerals' supplement or medicines when medically prescribed Ibe, Obasi, Nwoke, Nworu, Amadi and Nwufo (2017).

Breast milk is the best food for the infant because it contains all the nutrients in the correct proportions. It has the correct temperature, it is easily digested and assimilated, readily produced and available (Frazer & Cooper, 2003). One inevitable aspect of improving the health and nutritional status of children is the practice of optimal infant and young child feeding. Important recommendations from international guidelines state that, for normal physical and mental childhood growth as well as for good health in later life, it is important to adequately breastfeed during

early childhood. The elements of infant and young child feeding includes: Early initiation of breast feeding (within 30 minutes of delivery), exclusive breastfeeding, timely introduction of adequate complementary feeding and sustained breastfeeding till 2 years and beyond.

Taking the very useful contributions of breastfeeding for optimal development, the World Health Organization (WHO) recommends exclusive breastfeeding for six months, followed by addition of complementary feeds thereafter, with continuation of breastfeeding up to or beyond two years (WHO, 2003). According to WHO (2007), planning guide for national implementation of the Global Strategy for Infant and young Child Feeding, exclusive breastfeeding is defined as the act of giving infants only breast milk, excluding solids or any other fluids (including infant formula) except medicines, vitamins, and minerals. Statistically, it is shown that Suboptimal breastfeeding is responsible for the death of 1.4 million children and the disability of 44 million globally (Black, Allen, Bhutta, Caulfield, De onis, Ezzati and Rivera, 2008). Consequently, it has been recommended that all nursing mothers should breastfeed their infants exclusively in the first six months and successively with complementary feeding for 2years for optimal growth and development (UNICEF, 2013).

The Global Strategy for Infant and Young Child Feeding reports that about 60percent of the several million deaths, occurring among children under five years annually is related to malnutrition (WHO, 2003). The target population are mothers with children 0-24 months. They are chosen

because it is believed that after two years there is introduction of family foods in order to prevent malnutrition and setting a good standard for the children. The world health organization (WHO) and the United Nations International Children's Emergency Fund (UNICEF) developed the global strategy for infant and young child feeding in 2012 to revitalize world's attention to the impact that feeding practices have the nutritional status, growth, development, health and survival of infants and young children. The strategy is based on the conclusions and recommendations of expert consultants, which resulted in the global public health recommendation to protect, promote and support exclusive breast feeding for six months and to provide safe and appropriate complimentary foods including continued breastfeeding for up to two years of age or beyond (WHO/UNICEF, 2012).

However, many children are not fed in the recommended way. Many mothers who initiate breast-feeding satisfactorily often start complimentary feeds too early or stop breast feeding within a few weeks of delivery. In addition, many children including those who have grown well for the first six months of life do not receive adequate complimentary feeds. This may result in malnutrition, which is an increasing problem to many children. More than one third of under five children are malnourished, stunted, wasted or deficient in vitamin A, iron or other micronutrient and malnutrition contributes to more than half of the 10.5 million deaths each year among young children in developing countries.

Complementary feeding is the change over from exclusive breastfeeding to family foods and characteristically covers the period from 6 - 24 months of age, though breastfeeding may last up to two years of age and beyond. This is a crucial period of growth and development during which nutrient deficiencies and infections contribute globally to higher rates of malnourishment among children below five years of age. Convincingly, a number of fruitful policies have been developed to improve complementary feeding practices in low- and middle-income countries, where practical hitches can limit total adherence to complementary feeding guiding principles.

As stated by the Infant and Young Child Feeding (IYCF) programme that, during the period of complementary feeding, the young child progressively becomes accustomed to eating family foods. Complementary foods bridge the gap in vitamin A, energy, and iron intake, which happens in breastfed infants at six months of age. Too early or too late introduction of complementary feeding may principally lead to nutritional deficiencies of zinc, iron, vitamins and calcium. Complementary feeding needs to be nutritionally sufficient, safe and suitably fed to meet the nutritional and energy needs of the child.

Historically, Complementary feeding is also influenced by socio-cultural factors, beliefs, and knowledge of parents on appropriate practices. Likewise, safe preparation, psychosocial care, correct storage of complementary foods, and hygienic habits are also the imperative elements

of proper feeding practices. Globally, optimal breastfeeding could prevent 13 percent of deaths of children aged less than five years while correct complementary feeding (CF) practices might result in an extra 6 percent reduction in under-five mortality, especially in developing countries as ours. Notwithstanding the global practice of breastfeeding, only 30 percent of children under 6months of age in Sub Saharan Africa are exclusively breastfed (UNICEF, 2005).

In Abia State, the level of coverage of exclusive breast feeding has stagnated to 30 percent despite all the trainings and retraining of breast feeding focal persons, officers in charge (OICs), breast feeding counselors and support groups who visit the pregnant and lactating mothers in their homes to counsel them on the need to exclusively breast feed their young infants. Umuahia South L.G.A had benefited from several trainings on infant and young child feeding which yielded poor result as there are still malnourished babies as observed during postnatal clinics. However, there is scarcity of literature on the knowledge, attitude and practice of infant and young child feeding in Umuahia South L. G. A. The concern to improve on the feeding of infant and young child in Umuahia South L.G.A. arouse the interest of the researcher to determine the knowledge attitude and practice of mothers with child 0-24 months towards infant and young child feeding in Umuahia South LGA. The target populations are nursing mothers with child 0-24 months who attends post natal clinic. Majority of research reports have focused on the benefits of breastfeeding to infants,

young children, mothers and communities (Frazer & Cooper, 2003). The dependent variable is the socio demographic data such as age, gender, educational qualification, marital status, religion and occupation while the independent variables are knowledge, attitude, practice and nursing mothers. It is on this premise that this research is carried out.

1.2 Statement of Problem

Infant and young child feeding is the process of feeding the infant exclusive with only breast milk for the first 6 months of life and the introduction of timely and adequate complimentary (Family) foods including breast milk until the baby is 24 months old or beyond, poor infant feeding practices coupled with high rates of infectious diseases are the major causes of malnutrition during the first two years of life (Akeredolu Senki - Mosadolorun and Okorafor, 2014).In Nigeria child malnutrition which occurs in more than 60 percent of children has been identified to be responsible for more than 50 percent of infants death due to inappropriate child feeding practices such as delayed introduction to complementary foods, low energy and nutrient density of foods offered, feeding in small quantity, food restrictions due to cultural beliefs, low birth weight and high mobility (WHO, 2003). In Abia state. sub - optimal infant feeling practices among mothers and other care givers are partially due to traditional norms despite awareness of the appropriate feeding guidelines Nwuto(2015), particularly in Umuahia south that benefitted from all the trainings on

infant and young child feeding in the state, it was observed that mothers do not feed their infants according to the global guidelines and this necessitate the study to determine the knowledge. Attitude and practice of infants and young child feeding among mothers with child 0 - 24 months in Umuahia south local government area of Abia State.

1.3 Objectives of the Study

1.3.1 The General Objective

The objective of the study is to Determine the Knowledge, Attitude and Practice of Infant and Young Child Feeding Among Mothers with Child 0-24 months in Umuahia South L.G.A ,Abia State.

1.3.2 Specific Objectives

The specific objectives are:

1. To determine the level of knowledge of infant and young child feeding among mothers with child 0-24 months in Umuahia South, L.G.A., Abia State, in relation to their socio-demographic characteristics.
2. To determine the level of knowledge of infant and young child feeding among mothers with child 0-24 months in Umuahia South, L.G.A., Abia State, in relation to the index child characteristics.
3. To determine the attitudes of mothers with child 0-24 months in Umuahia South, L.G.A., Abia State, towards infant and young child in relation to their socio-demographic characteristics.

4. To determine the attitudes of mothers with child 0-24 months in Umuahia South, L.G.A., Abia State, towards infant and young child feeding in relation to the index child characteristics.
5. To determine the practices of infant and young child feeding among mothers with child 0-24 months in Umuahia South, L.G.A., Abia State, in relation to their socio- demographic characteristics.
6. To determine the practices of infant and young child feeding among mothers with child 0-24 months in Umuahia South, L.G.A., Abia State, in relation to the index child characteristics.

1.4 Research Questions

1. What is the level of knowledge of infant and young child feeding among mothers with child 0-24 months in Umuahia South, L.G.A., Abia State, in relation to their socio demographic characteristics?
2. What is the level of knowledge of infant and young child feeding among mothers with child 0-24 months in Umuahia South, L.G.A., Abia State, in relation to the index child characteristics?
3. What is the attitude of mothers with child 0-24 months in Umuahia South, L.G.A., Abia State, towards infant and young child in relation to their socio-demographic characteristics?
4. What is the attitude of mothers with child 0-24 months in Umuahia South, L.G.A., Abia State, towards infant and young child feeding in relation to the index child characteristics?

5. What is the level of practice of infant and young child feeding among mothers with child 0-24 months in Umuahia South, L.G.A., Abia State, in relation to their socio- demographic characteristics?
6. What is the level of practice of infant and young child feeding among mothers with child 0-24 months in Umuahia South, L.G.A., Abia State, in relation to the index child characteristics?

1.5 Research Hypotheses

$H0_1$: There is no significant relationship between the level of knowledge of mothers with child 0-24 months and their socio demographic characteristics in Umuahia South L.G.A., of Abia State.

$H0_2$: There is no significant relationship between the level of knowledge of infant and young feeding among mothers with child 0-24 months and the index infant/child characteristics in Umuahia South L.G.A. , Abia State.

$H0_3$: There is no significant relationship between the attitude of mothers with child 0-24 months and their socio demographic characteristics in Umuahia South L.G.A., Abia State.

$H0_4$: There is no significant relationship between the attitude of mother with child 0-24 months with the index infant/child characteristics in Umuahia South L.G.A, Abia State.

$H0_5$: There is no significant relationship between the practice of infant and young child feeding among mothers with child 0-24 months and their socio demographic characteristics in Umuahia South L.G.A. , Abia State.

$H0_6$: There is no significant relationship between the practice of infant and young child feeding among mothers with child 0-24 months and the index infant/child characteristics in Umuahia South L.G.A, Abia State.

1.6 Significance of the Study

The significance of this study is to provide evidence informed recommendation on exclusive breast feeding for children less than six months and complimentary feeding of our traditional foods to children above 6 months and up to 24 months including breast feeding to reduce the risk of malnutrition amongst infants and young children in Umuahia South LGA of Abia State. The findings of the study will help mothers and care givers in the effort to make informed decisions on the appropriate nutrition actions to achieve the Millennium Development Goals, in particular, the eradication of extreme poverty and hunger (MDG1) and reduction of child mortality (MDG4).

The study will be beneficial to pregnant mothers and nursing mothers by acquiring the knowledge on how to feed the infant and young child. Umuahia South LGA will benefit from the data gotten which will be used in planning nutrition programmes for under 5, Abia State breastfeeding and nutrition units will also utilize the data in planning and capacity building of their health workers.

For researchers it will provide them with adequate and useful literatures for future reference as to acquire the best from their health workers in order to perform better as well as build further researches on

condition of services and health workers job performance. The study will equally assist students who are the direct beneficiaries of health policies and programmes examinations.

The research is intended for a wide audience including policy makers, health workers, programme staff and organizations involved in design, implementation and scaling up of nutrition actions for public health.

The results gotten will enhance the future planning for pregnant mothers lactating mothers and children less than 2 years of age.

1.7 Scope of Study

This study is designed to determine the knowledge, attitude, and practice of mothers towards feeding of infants and young children of ages 0 – 24 months in Umuahia South LGA of Abia State. The study is delimited to nursing mothers attending infant welfare clinics in Umuahia South L.G.A. The dependent variable is the socio demographic data such as age, gender, educational qualification, marital status, religion and occupation while the independent variables are knowledge, attitude, practice and nursing mothers. It is on this premise that this research is carried out.

CHAPTER TWO

LITERATURE REVIEW

This chapter is the review of relevant literature and is organized under the following headings:

Conceptual framework,

Theoretical study and framework

Empirical studies

Summary of literature review

2.1 Conceptual Framework

2.1.1 Breastfeeding

Breastfeeding is one of the most effective ways to ensure child health and survival. However, nearly 2 out of 3 infants are not exclusively breastfed for the recommended 6 months—a rate that has not improved in 2 decades. Breast milk is the ideal food for infants. It is safe, clean and contains antibodies which help protect against many common childhood illnesses. Breast milk provides all the energy and nutrients that the infant needs for the first months of life, and it continues to provide up to half or more of a child's nutritional needs during the second half of the first year, and up to one third during the second year of life.

Breastfed children perform better on intelligence tests, are less likely to be overweight or obese and less prone to diabetes later in life. Women who breastfeed also have a reduced risk of breast and ovarian cancers. Inappropriate marketing of breast-milk substitutes continues to

undermine efforts to improve breastfeeding rates and duration worldwide. (WHO, 2018)

Breastfeeding is the process of feeding the new born with milk from human breast (UNICEF, 1998). It contains all the nutrients, mineral salt and water that the baby needs for healthy life and growth. It also reduces severity of infectious diseases and lowers infant morbidity and mortality rate (Nworuh, 2013). Breastfeeding for a long period help children in developing sharp brains and colostrums which contains an essential food nutrient and antibody helps to protect them against several forms of infections and diseases (Nworuh, 2013). Therefore, if every baby were exclusively breastfed from birth an estimated 1.5 million, lives would be saved each year (UNICEF, 2000).

Successful preparation for exclusive breastfeeding must begin during pregnancy. Health workers need to make sure family members and mothers are ready for unrestricted breastfeeding soon after delivery, and help make arrangements for mothers and Infants to remain together for at least the first few months of life (Basics, 2004). This process provide hours of closeness and nurturing, Saying the foundation of care and trusting relationship between mother and child and an opportunity for communication at early life of the child (UNICEF, 2000). This may help the child accept the demands of socialization later in life. Though, it is a natural act, breastfeeding is also a learned behaviour. Virtually all mothers can breastfeed provided they have accurate information, and support within their families and communities, and

from the health care system. They should also have access to skilled practical help from, for example, trained health workers, lay and peer counsellors, and certified lactation consultants, who can help to build mothers' confidence, improve feeding technique, and prevent or resolve breastfeeding problems (UNICEF, 2002).

There are various kinds of breastfeeding as differentiated by the International Baby Food Action Network (IBFAN, 1986). They include; exclusive breastfeeding, token breastfeeding, partial breastfeeding, substantial breastfeeding.

A. Exclusive breastfeeding: According to the definition of the World Health Organization (WHO), Exclusive breastfeeding (EBF) is the situation in which an infant receives only breast milk from his/her mother or a wet nurse for the first 6 months and no other solids or liquids with the exception of drops or syrups consisting of vitamins, minerals, supplements, or medicines. (WHO, 2018).

B. Token breastfeeding: The term "token breastfeeding" indicates that the breast is used primarily to comfort or console the infant, with minimal nutritional contribution. In addition to breast milk, foods and other drinks are used. There is total of two or fewer breastfeeding in 24 hours or less than 15 minutes of actual sucking time. This is associated with approaching end of breastfeeding (Karen, 2013)

C. **Partial breastfeeding:** Partial breastfeeding was defined as the infant receiving non-human milk feeds such as animal milk, formula milk, vegetable soup, lentil, or other solid or semisolid food in addition to breastfeeding. Here, the baby breast feeds part of the time with artificial feeds, however, this is for a long period of time or interval and is done either at night or in the absence of the mother (Dharel *et al*, 2020).

D. Substantial breastfeeding: Feeding in response to the needs of the child, though with other complements (Robert *et al.,* 1995). Among these, exclusive breastfeeding is the best and safest means of feeding a baby, and one of the most vital to neonatal, infant and child's health, growth and development. The benefits are manifested if breastfeeding is initiated within one hour after delivery with no pre-lacteal feeds until 6 months of life (Judith and Debbie, 2000).

2.1.2 History of breastfeeding

Breastfeeding is as old as man , in the bible ,when Moses was picked up by the riverside ,the daughter of pharaoh insisted that he should be breastfed until he is weaned. The historical evolution of infant feeding includes wet nursing, the feeding bottle, and formula use. Before the invention of bottles and formula, wet nursing was the safest and most common alternative to the natural mother's breast milk. Society's negative view of wet nursing, combined with improvement of the feeding bottle, the availability of animal's milk, and advances in formula development, gradually led to the substitution of artificial feeding for wet nursing. In addition, the advertising

and safety of formula products increased their popularity and use among society. Currently, infant formula-feeding is widely practiced in the United States and appears to contribute to the development of several common childhood illnesses, including diabetes mellitus, and childhood obesity (Stevens, *et al.*, 2009).

2.1.3 Benefits of breasting feeding

Breastfeeding, initiated within the first hour of birth, provided exclusively for six months, and continued up to two years or beyond with the provision of safe and appropriate complementary foods, is one of the most powerful practices for promoting child survival and wellbeing. Improving breastfeeding rates around the world could save the lives of more than 820,000 children under age 5 every year, the majority (87 per cent) under 6 months of age. In addition to improving child survival and protecting against life-threatening and chronic illnesses, breastfeeding promotes healthy growth and boosts early child development. Breastfeeding supports healthy brain development, and is associated with higher performance in intelligence tests among children and adolescents across all income levels. (UNICEF, 2017).

But breastfeeding is not just good for babies; it is good for mothers as well. Indeed, breastfeeding has been shown to protect against post-partum haemorrhage, postpartum depression, ovarian and breast cancer, heart disease and type 2 diabetes. It is estimated that improving breastfeeding rates could prevent an additional 20,000 maternal deaths from breast cancer. (WHO, 2017).

In short, breastfeeding is among the most effective ways to protect maternal and child health and promote healthy growth and optimal development in early childhood. Empowering and enabling women to breastfeed should be at the heart of countries' efforts to keep every child alive and to build healthy, smart and productive societies.(UNICEF, 2017). Breastfeeding has been shown to reduce the likelihood of ear infections, and to prevent recurrent ear infections. Ear infections are a major reason that infants take multiple courses of antibiotics. In developing countries, differences in infection rates can seriously affect an infant's chances for survival. For example, in Brazil, a formula-fed baby is 14 times more likely to die than an exclusively breast-fed baby. Researchers have observed a decrease in the probability of Sudden Infant Death Syndrome (SIDS) in breast-fed infants (People, 2010).

Another apparent benefit from breastfeeding may be protection from allergies. Eczema, an allergic reaction, is significantly rarer in breast-fed babies. A review of 132 studies on allergy and breastfeeding concluded that breastfeeding appears to help protect children from developing allergies, and that the effect seems to be particularly strong among children whose parents have allergies (People, 2010).

It has been revealed and explained by researchers that, a better postmenopausal and reproductive health which is of utmost benefit to women is ensured when the concept of exclusive breastfeeding is carried out for six months (Murimi, Dodge, Pope and Erickson, 2010).

Breastfeeding has an advantageous effect on the health of nursing mothers. Research has shown that, breastfeeding aids in trailing pregnancy weight faster (Baker, et al., 2008). Infants who are adequately breastfed grow more quickly and are in good health than those who were not breastfed (Ukegbu, Ukegbu, Onyeonoro and Ubajaka, 2010). Breast milk provides a child with substantial protection against countless infectious diseases because it contains antibodies (immunoglobulin's) that strengthens the Child's immunity (Murimi, *et al.,* 2012). Breastfeeding reduces the incidence and prevalence of asthma, malaria, meningitis, respiratory diseases (such as pneumonia), ear infection, urinary tract infection and diarrhoea (Ibadin, Ofili, Morrison and Network, 2012). Kramer and Kakuma (2012) postulated that, in the first six months of life, exclusively breastfed infants are six times less likely to die from diarrhoea and 2.5 times less likely to die from acute respiratory infection as compared to those that were not exclusively breastfed.

Breastfeeding lowers the risk of food intolerance and allergies and thus improves brain development (Centre for Community Child Health, 2006). On entering their teenage hoods, Infants who were exclusively breastfed for six months have higher Intelligent quotients, lower risk of childhood obesity, lower risk of mental health problems and diabetes (UNICEF, 2010). Breastfed children have at least a minimum, six times greater a chance of survival in their early months as in contrast to non-breastfed children (UNICEF, 2013). Early breastfeeding dwindles the rate of infant morbidity

and mortality as a result of the preventive benefits of breastfeeding in reducing long term diseases (WHO, 2007).

The benefits of breast feeding can be summarized as follows:

The Benefits of Breastfeeding for Baby

1. Breast milk contains live immunity. When a baby consumes breast milk, he or she receives both immediate and lifelong immunities.
2. Breast milk provides the specific nutrients that meet your baby's needs. It's pretty amazing: Your milk supply will fluctuate based on your baby's demand. Your baby will communicate what she needs from your body, and your body will then produce the quality and quantity of milk to meet those requirements.
3. Breastfeeding can reduce your baby's risk of sudden infant death syndrome (SIDS). While the American Academy of Paediatrics recommends that mothers breastfeed for at least one year, research shows that breastfeeding as little as two months cuts the risk of SIDS in half.
4. Breastfeeding allows babies to feel close to the "home base" that they've known while in the womb. Hearing your heartbeat and feeling your warm skin will help her transition from the inner world to the outer world.
5. Docosahexaenoic acid (DHA), a polyunsaturated fatty acid found in breast milk, helps support proper brain development.

6. Breastfeeding can reduce your baby's risk of developing middle ear infections.
7. Breastfeeding can reduce your baby's chances of developing allergies.
8. Breastfeeding can reduce your baby's risk of developing diabetes, since breast milk contains no artificial sugar.

The Benefits of Breastfeeding for Mom

Breastfeeding also can benefit mom by:

1. Reducing her risk of developing osteoporosis
2. Reducing her breast cancer risk
3. Reducing her ovarian cancer risk
4. Producing oxytocin, which helps contract the uterus back to its pre-pregnancy size
5. Burning calories and using mom's fat stores for her breast milk
6. Lowering her chance of developing postpartum depression, since breastfeeding enables pregnancy hormones to decrease slowly, instead of abruptly
7. Saving money, since breastfeeding is free!

2.1.4 Child feeding practice in Africa

Poor infant feeding practices coupled with high rates of infectious diseases are the major causes of malnutrition during the first two years of life (Akeredolu, Seriki-Mosadolorun and Okorafor, 2014). Appropriate breast

feeding and complementary feeding practices and access to adequate amounts of appropriate foods are essential for optimal infant nutrition. Breast feeding provides infants with superior nutritional content that is capable of improving infant immunity and possible reduction in future health care spending. Child mortality remains high in low and middle income countries. It has been reported that 17 percent of Nigerian children were exclusively breastfed for less than 4 months, while 13percent were exclusively breastfed for less than 6 months. All these figures are still far below average levels. Children needs complementary foods in addition to breast milk from the age of six months. Infancy period is a critical nutritional period for children, in which they should be transiting from exclusive breast feeding to receiving complementary foods in addition to continued intake of breast milk.

The nutrition education given to mothers should emphasize the importance of breast milk only for the first six months of life and promote appropriate and timely complementary foods at six months with increased feeding frequency and change in food consistency, quality and diversity as the child ages. However, inadequate knowledge of appropriate foods and feeding practices is often a greater determinant of malnutrition than lack of foods. It has been observed that mothers who are nutritionally educated bring up their children in a healthier way than those who lack nutrition knowledge (Akeredolu, *et al.,* 2014).

2.1.5 Improving Child Feeding Practices

Mothers, fathers and other caregivers should have access to objective, consistent and complete information about appropriate feeding practices, free from commercial influence. In particular, they need to know about the recommended period of exclusive and continued breastfeeding; the timing of the introduction of complementary foods; what types of food to give, how much and how often; and how to feed these foods safely. Mothers should have access to skilled support to help them initiate and sustain appropriate feeding practices, and to prevent difficulties and overcome them when they occur.

Knowledgeable health workers are well placed to provide this support, which should be a routine part not only of regular prenatal, delivery and postnatal care but also of services provided for the well baby and sick child. Community-based networks offering mother-to-mother support, and trained breastfeeding counsellors working within, or closely with, the health care system, also have an important role to pay in this regard. Where fathers are concerned, research shows that breastfeeding is enhanced by the support and companionship they provide as family providers and caregivers (ILO, 2000).

Mothers should also be able to continue breastfeeding and caring for their children after they return to paid employment. This can be accomplished by implementing maternity protection Legislation and

related measures consistent with ILO Maternity Protection Convention and Maternity protection recommendation. Maternity leave, day-care facilities and paid breastfeeding breaks should be available for all women employed outside the home.

Continuing clinical and population-based research and investigation of behavioural concerns are essential ingredients for improving feeding practices. Crucial areas include completion and application of the new international growth reference, prevention and control of micronutrient malnutrition, programmatic approaches and community-based interventions for improving breastfeeding and complementary feeding practices, improving maternal nutritional status and pregnancy outcome, and interventions for preventing mother-to-child transmission of HIV in relation to infant feeding (ILO, 2000).

2.1.6 Complementary Feeding

Complementary feeding is defined as the process starting when breast milk alone is no longer sufficient to meet the nutritional requirements of infants, and therefore other foods and liquids are needed, along with breast milk. The transition from exclusive breastfeeding to family foods – referred to as complementary feeding – typically covers the period from 6–24 months of age, even though breastfeeding may continue to two years of age and beyond. This is a critical period of growth during which nutrient deficiencies and illnesses contribute globally to higher rates of under nutrition among children under five years of age. (WHO, 2019). In

many developing countries, however, traditional complementary food gruels are based on starchy staple foods, such as wheat, rice, maize, or sorghum, that produce viscous porridges that are difficult for children to consume, as a result, mothers commonly dilute the porridge with water to reduce its viscosity (WHO, 1992). Such dilution, however, also reduces energy density of the mixture since young children have small gastric capacities they are unable to consume enough of the diluted porridge to meet their energy requirements and consequently may become malnourished (WHO, 2000). This problem of high viscosity, low energy density or both in complementary food is referred to as dietary bulk and children consuming these foods grow poorly and have high mortality rates (Pelletier *et al,* 1995).

Complimentary food is the term used to describe any nutrient containing foods or liquids, other than breast milk, that are given to young children during the period of complimentary feeding (Brown *et* a*l.*, 1998). Complimentary food includes special "transitional" foods that are prepared especially for the infant and, increasingly as the child becomes older, the same foods that are consumed by other members of the household (Dewey, 2001). A recent review of current recommendations for complementary feeding revealed some similarities, as well as many differences, among national and international organization (Dewey, 2001). The similarities include; the need for a gradual transition from soft foods to family foods; starting complementary feeding sometime between 4 and 6 months of

age; and introducing cereals first and avoiding offering cow's milk until 9-12 months of age. The differences include; mention or lack of mention of the need for iron-fortified foods, specific vitamin A sources, meat, poultry, fish, and vitamin-mineral supplements; and the recommended number of meals (Dewey, 2001).

Appropriate complementary feeding depends on accurate information and skilled support from the family, community and health care system. Inadequate knowledge about appropriate foods and feeding practices is often a greater determinant of malnutrition than the lack of food. Moreover, diversified approaches are required to ensure access to foods that will adequately meet energy and nutrient needs of growing children, for example use of home- and community-based technologies to enhance nutrient density, bioavailability and the micronutrient content of local foods (UNICEF, 2002).Around the age of 6 months, an infant's need for energy and nutrients starts to exceed what is provided by breast milk, and complementary foods are necessary to meet those needs. An infant of this age is also developmentally ready for other foods. If complementary foods are not introduced around the age of 6 months, or if they are given inappropriately, an infant's growth may falter. Guiding principles for appropriate complementary feeding are:

Continue frequent, on-demand breastfeeding until 2 years of age or beyond; Practise responsive feeding (for example, feed infants directly and assist older children. Feed slowly and patiently, encourage them to eat but do not

force them, talk to the child and maintain eye contact); Practise good hygiene and proper food handling; Start at 6 months with small amounts of food and increase gradually as the child gets older; gradually increase food consistency and variety; increase the number of times that the child is fed: 2–3 meals per day for infants 6–8 months of age and 3–4 meals per day for infants 9–23 months of age, with 1–2 additional snacks as required; use fortified complementary foods or vitamin-mineral supplements as needed; and during illness, increase fluid intake including more breastfeeding, and offer soft, favourite foods. (WHO, 2019).

2.1.7 Constraints to Exclusive Breastfeeding Practice

The major challenges to exclusive breastfeeding and complimentary feeding can be summerised thus: household chores; formal and informal work schedules; family influence on exclusive breastfeeding; low breast milk production; swollen breast or sore nipples; access to complementary food items; and preparing and giving complementary foods to children.

Household chores.

Cooking and fetching water are household chores that mostly interfer with the practice of exclusive breastfeeding. Periods of cooking foods for their families sometimes pose challenges to the practice of exclusive breastfeeding in the home.

Exclusive breastfeeding challenges in work schedules.

The work schedules of mothers can interfere with the practice of exclusive breastfeeding. This sometimes affects how they exclusively breastfeed their children:

Family influences on exclusive breastfeeding.

Close associates such as grandmothers, co-tenants, and other relatives can sometimes be a challenge to mothers on the practice of exclusive breastfeeding as they have strong influence on them.

Low breast milk production.

Mothers may feel that their breast milk is insufficient which is a major factor that hinder efforts towards attaining optimum exclusive breastfeeding especially among mothers in the rural area. Mothers who were unable to meet their children's demands for breast milk found themselves in a state of despair:

Swollen breasts or sore nipples.

A swollen breast or sore nipple makes it difficult for effective breast feeding.

Access to complementary food items.

The acquisition of food items by mothers to prepare the required complementary foods for their children poses a challenge for most mothers

in the rural area. The unavailability of preferred food items can be a concern for some mothers.

Preparing and giving complementary foods to children

Preparing the food is the problem. If there is no time to feed the baby at work and also when you send the food to the work place and it cools, you cannot feed the child as required. (Anthony Mwinilanaa, 2019)

2.2 Theoretical Framework

A theory is a set of statement that is developed through a process of continued abstraction. It is aimed at a generalized statement which is aimed at explaining a phenomenon. A theory is an idea, suggestion or a preposition put forward to explain something. From the management perspective, a theory is an explanation of why and what leads to certain behaviours in people (Dabar, 2014). A model is a purposeful representation of reality. It is more like a helpful tool to understand specific phenomenon. It can be symbolic or verbal representation of a concept which has been in order to make the understanding of something clearer. It is also a representation to explain a theory.

Models and theories provide possible explanations for natural phenomena models can serve as the structures for the step by step formulation of a theory. On the other hand, theories can be the basis for creating a model that shows the possibilities of the observed subjects.

Theories can guide the researcher to Understand why people do not practice health promoting behaviour, it can also help identify what information is needed to design an effective intervention strategy.

It also provides insight into how to design a program successfully. Theories and models help explain behaviour as well as suggest how to develop more effective ways to influence and change behaviour. The study was premised on two models that are related to the study, the PRECEDE Model and Diffusion of innovation theories.

THE PRECEDE MODEL

The precede model is a cost –benefit evaluation framework proposed in 1974 by Lawrence Green and Marshall Kreuter for health education health promotion programmes that can help health programme planners ,policy makers and other evaluators ,analyse situations and design health programme efficiently. Its overriding principles are the most enduring health behaviour change is voluntary in nature .This principles is reflected in systematic planning process which seeks to empower individuals with understanding ,motivation skills and active engagement in community affairs to improve the quality of life(Johnson KW, Grube JW, Ogilvie KA, Collins D, Courser M, Dirks LG, 2018).

Most research shows that behaviour change is most likely and lasting when people have active participation in decisions about it .If nursing mothers actively participated in the decisions of exclusively breastfeeding their children and the introduction of family foods when the baby is 6 months

old, they will be actively involved in it and also breastfeed their baby until the baby is 2 years old. In the process, they make healthy choices easier by changing the policies and regulations which influences their behaviour (Ross and Mico, 2018).

The PRECEDE Model has four change stages:

i. The individual's or group's level of dissatisfaction with things as they are now.
ii. Individual's or group's shared vision of better future.
iii. Existence of an acceptable safe first step.
iv. The cost to the individual or group.

In this framework, health behaviour is regarded as been influenced by both individual and environmental factors and hence has two distinct parts, the educational and ecological diagnoses. Precede is based on the premise that just a medical diagnosis precedes a treatment plan, an educational diagnosis of the problem is very essential before developing the intervention plan. This implies that the influence of mothers, husband, mother in-laws, friends, neighbours and significant others can affect the decision of the nursing mothers.

The model further explains the predisposing factors to include knowledge, attitude, beliefs, personal preference, existing skills and self-efficacy towards the desired behaviour change which is helpful in this study conducted to determine the knowledge, attitude and practice of nursing mothers towards infant and young child feeding in Umuahia South L.G.A,

Abia State, and also provide suggestions on the adoption to the feeding of the infant and young child. It further states that reinforcing factors include factors that reward or reinforce the desired behaviour including social support, economic rewards and changing social norms. Every 1st week in August is designated World Breastfeeding Week, during the week, several activities are performed geared towards encouraging the mothers to exclusively breastfeed their babies, the grand finale is the competition and selection of the best 3 children from category 0 – 6 months, 7 – 11 months and 12 – 24 months respectively, the selected children received gifts from the Governor's wife, all these activities motivated other mothers to exclusively breastfeed their children in subsequent childbirth so as to participate in the annual competition and celebration.

Enabling factors are skills or physical factor such as availability and accessibility of resources or services that facilitate behaviour. Health workers, breastfeeding counsellors and support groups were always available to support the nursing mothers, and their husbands were also encouraged to assist them in other household chores in other to achieve this task in Umuahia South L.G.A. The frame work proceed was later added to the framework in 1991 in consideration of the growing recognition of the expansion of health education to encompass policy regulatory and related ecological/environmental factors in determining health behaviour.

This framework was found ideal, therefore, I adopt it to be used in this study of determining the knowledge, attitude and practice of Infant and

Young Child Feeding among mothers with child 0 – 24 months in Umuahia South L.G.A, Abia State.

Diffusion of Innovation Theory

Diffusion of Innovation (DOI) Theory, was developed by KM. Rogers in 1962, it is one of the oldest social science theories. It originated in communication to explain how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system. The end result of this diffusion is that people, as part of a social system, adopt a new idea, behaviour, or product. Adoption means that a person does something differently than what they had previously (i.e., purchase or use a new product, acquire and perform a new behaviour, etc.). The key to adoption is that the person must perceive the idea, behaviour, or product as new or innovative. It is through this that diffusion is possible.

Diffusion theory explains the pattern or rate of adoption of innovations by individuals or groups in a community—some persons may adopt new ideas immediately, others lag behind but adopt at some time, and some may not adopt at all (Howze & Redman, 1992).

Diffusion theory is a marketing principle used to explain the pattern of adoption of something new. There are four components to diffusion: (a) the innovation (a program or idea that is new), (b) the channels of communication by which the program or idea is exchanged among adopters

or members of the group, (c) time, and (d) the setting or social system in which the innovation takes place (Schiffman & Kanuk, 1991)

Many health promotion programs are thought of as innovations among specific populations, and diffusion theory helps describe a pattern the population may follow in adopting the program.

For example, some people may hear of the launching of infant and young child feeding and especially exclusive breastfeeding in their local government, they will volunteer to participate without asking question, while others who are more suspicious will wait until the programme is established to make sure it is useful before joining and there are others that may not get involved at all.

According to Rogers, adoption of a new idea, behaviour, or product (i.e., "innovation") does not happen simultaneously in a social system; rather it is a process whereby some people are more apt to adopt the innovation than others. Researchers have found that people who adopt an innovation early have different characteristics than people who adopt an innovation later. When promoting an innovation to a target population, it is important to understand the characteristics of the target population that will help or hinder adoption of the innovation. For example, in 2010 when infant and young child feeding was newly introduced in Abia State, as an innovation nursing mothers were reluctant to adopt, but the early adaptors saw the benefits and started spreading the news which made many women to

decide to adopt the innovation in the state which is now yielding great result in the growth of the child. There are five established adopter categories as follows;

Innovators - These are people who want to be the first to try the innovation. They are venturesome and interested in new ideas. These people are very willing to take risks, and are often the first to develop new ideas. Very little, if anything, needs to be done to appeal to this population.

Early Adopters - These are people who represent opinion leaders. They enjoy leadership roles, and embrace change opportunities. They are already aware of the need to change and so are very comfortable adopting new ideas. Strategies to appeal to this population include how-to manuals and information sheets on implementation. They do not need information to convince them to change.

Early Majority - These people are rarely leaders, but they do adopt new ideas before the average person. That said, they typically need to see evidence that the innovation works before they are willing to adopt it. Strategies to appeal to this population include success stories.

Late Majority - These people are sceptical of change, and will only adopt an innovation after it has been tried by the majority. Strategies to appeal to this population include information on how many other people have tried the innovation.

Laggards -These people are bound by tradition and very conservative. They are very sceptical of change and are the hardest group to bring on board. Strategies to appeal to this population include statistics, fear appeals, and pressure from people in the other adopter groups.

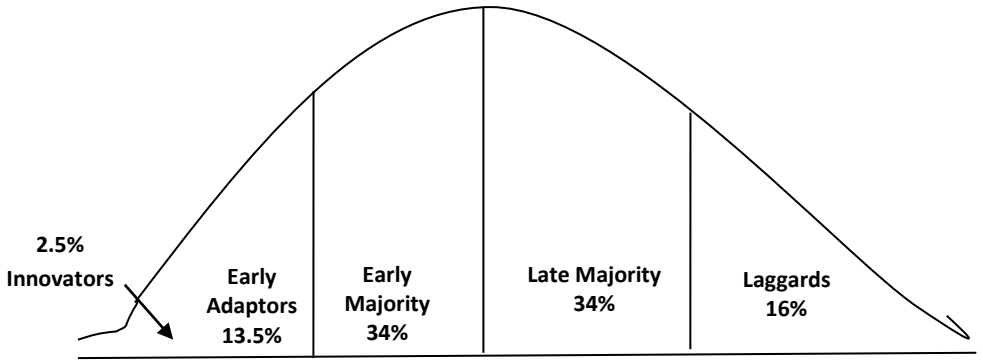

Fig. 1 The Adopter Categories

The stages by which a person adopts an innovation, and whereby diffusion is accomplished, include awareness of the need for an innovation, decision to adopt (or reject) the innovation, initial use of the innovation to test it, and continued use of the innovation. There are **five main factors that influence adoption of an innovation,** and each of these factors is at play to a different extent in the five adopter categories.

1. Relative Advantage - The degree to which an innovation is seen as better than the idea, program, or product it replaces.

2. Compatibility - How consistent the innovation is with the values, experiences, and needs of the potential adopters.

3. Complexity- How difficult the innovation Is to understand and/or use.

4. Triability - The extent to which the innovation can be tested or experimented with before a commitment to adopt is made.

5. Observability - The extent to which the innovation provides tangible results.

Rogers further divided the key elements of diffusion to be;

Invention: Inventions are a broad category, relative to the current knowledge of the analyzed unit. Any idea, practice, or object that is perceived as new by an individual or other unit of adoption could be considered an invention available.

Adopters: Adopters are the minimal unit of analysis. In most studies, adopters are individuals, but can also be organizations (businesses, schools, hospitals, etc.), clusters within social networks, or countries.

Communication Channels: Diffusion, by definition, takes place among people or organizations. Communication channels allow the transfer of information from one unit to the other. Communication patterns or capabilities must be established between parties as a minimum for diffusion to occur. For example in Abia State, there were series of trainings, awareness creations on infant and young child feeding to educate officers in charge, breastfeeding focal persons, breastfeeding counsellors, nursing mothers and the community in general.

Time: The passage of time is necessary for innovations to be adopted; they are rarely adopted instantaneously, in fact, in the Ryan and Gross (1943) study on hybrid corn adoption, adoption occurred over more than ten years, and most farmers only dedicated a fraction on their fields to the new corn in the first years after adoption, also for exclusive breastfeeding to be implemented in Abia State, it took over ten years of sensitization and annual celebrations.

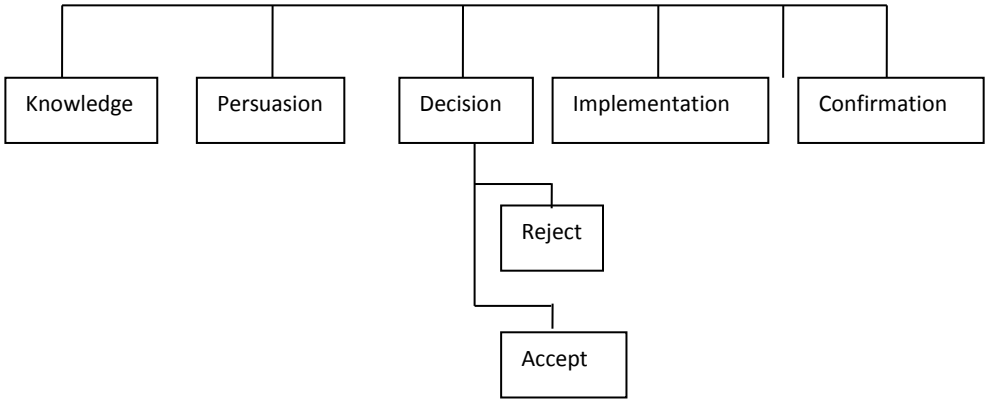

Fig. 2 Stages of adoption process

There are five stages of the adoption process

Knowledge: The individual is first exposed to an innovation, but lacks information about the innovation. During this stage the individual has not yet been inspired to find out more information about the innovation.

Persuasion: The individual is interested in the innovation and actively seeks related information and details.

Decision: The individual takes the concept of the change and weighs the advantages and disadvantages of using the innovation and decides whether

to adopt or reject the innovation. Due to the individualistic nature of this stage, Rogers notes that it is the most difficult stage on which to acquire empirical evidence.

Implementation: The individual employs the innovation to a varying degree depending on the situation. Implementation During this stage the individual also determines the usefulness of the innovation and may search for further information about it.

Confirmation: The individual finalizes his/her decision to continue using the innovation. This stage is both intrapersonal and interpersonal, confirmation the group has made the right decision. When related to this work, all the five stages came into play, first, there was training and retraining of staff on infant young feeding with particular reference to exclusive breastfeeding followed by jingles and town cries, community mobilization and sensitization using the breastfeeding counsellors and political heads which yielded good result. The nursing mothers were followed to their homes and these aroused their interest which made them to weigh the advantages and disadvantages, seeing that the advantages outweighs the disadvantages, the nursing mothers then decided to implement the innovation being infant and young child feeding and most mothers decided to sustain the process as was observed during the yearly campaigns launched by the Governor's wife in the state, that most mothers used exclusive breastfeeding method to nurse all their children, this has gone a long way to help in the reduction of infant and maternal morbidity

and mortality in Abia State. This framework was therefore adopted to this study.

2.3 Empirical Studies

Gyampoh, Otoo and Aryeetey, (2014) assess child feeding knowledge, attitude and practices among women attending Antenatal care in six Sub-metros of Ama, Ghana. Quantitative approach was used. Their findings revealed that exclusive breast feeding (EBF) was practiced by 80.1 percent of mothers with children 0-5 years in the preceding 24 hours. Seventy four percent of mothers had not missed any scheduled child welfare clinic sessions. Over 60percent of mothers knew the appropriate age of introduction of foods; 86percent also gave correct response regarding minimum number of times their child should be fed daily. About 81percent of children less than 6 months were exclusively breastfed in the preceding 24 hours, although 36percent had received water since birth. Forty two percent of children 6–23 months received dietary diverse meals while 64percent were fed the required number of times in a day. Overall, only 32percent of children 6–23 months received a minimum acceptable diet in the preceding 24 hours. A higher GMP exposure was positively associated with feeding knowledge scores among mothers with children below 6 months ($p < 0.05$). According to them, although most mothers were knowledgeable about recommendations, feeding practices was suboptimal, especially complementary feeding. GMP exposure was associated with

feeding knowledge only among mothers with children less than 6 months. In their concluding recommendations they said that strengthening of feeding counselling should be focused on children above 6 months.

Awumbila, (2003), explore social dynamics and infant feeding practices in Northern Ghana used a qualitative approach for this study. The findings revealed that exclusive breastfeeding for 6months in Ghana, however, has increased over the years from 2.2percent in 1989 to about 53percent in 2003 attributed to behaviour change communication interventions by the Ghana Health Service and its Partners to improve infant and young child feeding practices.

In a survey study by Anoshrike, Ejeogo, Nwosu, Maduforo and Nnoka, (2014) which assessed the Infant feeding Practices among mothers and their infants attending Maternal and child health in Enugu, Nigeria, samples of 410 infants (0-12 months) and mother pair, were randomly selected from these hospitals: Institute of Child Health University of Nigeria Teaching Hospital, Poly Clinic Asata, Christ Specialist Hospital Ogui and ESUT Teaching Hospital (Parklane) all in Enugu State of Nigeria. Results showed that majority (97.5percent) of the infants were Breastfed, 53percent initiated breastfeeding within one hour after birth, 65.3percent breastfed on-demand, 62.2percent of the infants were exclusive breastfed, only 34.5percent were breastfed exclusively for a duration of 5–6 months, 38.8percent of mothers practiced pre-lacteal feeding on their infants, 44percent were fed on breast milk substitute, 72.4percent were fed on

complementary food, 48.3percent initiate complementary feeding at the age of 5 to 6 months, 70percent were fed on Pap (*Akamu, Ogi*) as a complementary food. This study depicted high prevalence of inappropriate infant feeding practices among mothers despite all the nutrition education and promotion of optimal breastfeeding and adequate complementary feeding practices in our maternal and child care institute.

In a study in Nicaragua on factors affecting exclusive breastfeeding, It was revealed that socio-economic variables had a significant influence on exclusive breastfeeding, it was revealed that mothers with the lowest education level were more likely to exclusively breastfeed (EBF) their infants (OR not EBF: 0.19; 95percent CI: 0.07, 0.51). Women with high level of education are more likely to work in the formal sector where there is early return to work following child birth. These become a hindrance to EBF as many mothers adjust by initiating complementary feeding prior to 6month postpartum.(Aleisha, *et al* 2020).

Essien, Samson-Akpan, Ndebbio and John (2009) carried out a study in Calabar, Nigeria on mothers' knowledge, attitudes, beliefs and practices concerning Exclusive Breast Feeding (EBF). The study population consisted of all mothers of child bearing ages (15-49 years) who had children from (0-2 years). Simple random sampling was used in selecting ten villages out of twenty-three and single-stage cluster sampling was used to select three hundred (300) respondents for the study. Of 300 respondents, 80 percent (n=240) were aware of EBF, 162 (54.0percent) knew what exclusive

breastfeeding is and (74.3percent; n=223) knew that breast milk alone is sufficient for the baby for the first six months. However, only (32.0percent; n=96) knew when to wean the baby. on the practice of exclusive breast feeding, 293 respondents (97.7percent) were breastfeeding their babies, only 180 (60.0percent) practiced exclusive breastfeeding and 183 (96.0 percent;) gave their babies colostrums. On attitudes and beliefs about EBF, 254 (84.7percent) respondents had positive beliefs about the desirability of EBF, 253 (84.3percent) believed that breast milk is safe for the baby and 233 (77.7percent) stated that EBF is of low cost to the mother/family while 207 (69.0percent) believed that women are attractive during breastfeeding.

In a related study carried out by Omotola *et al.,* (2005) in Epe Local Government Area of Lagos State, it was revealed that the percentage of breastfeeding rose from 2percent in 1990 to 14percent in 2004. It was reported that 37percent of the mothers admitted that they had been advised to breastfeed immediately after delivery, but only 24percent of the sampled mothers actually did so. The status of breastfeeding dropped from 37percent in the neonatal period to 14percent at the end of the sixth month of exclusive breastfeeding (Omotola *et al.*, 2005).

CHAPTER THREE

This chapter discusses the method and procedure used in order to achieve the objectives of the study. It covered:

Research Design

Area of Study

Population of the Study

Sample/Sampling Techniques

Instrument for Data Collection

Validity of the Instrument

Reliability of the Instrument

Method of Data Collection

Method of Data Analysis

MATERIALS AND METHOD

3.1 Study Design

Descriptive cross-sectional study design was used for the study which determined the knowledge, attitude and practice of infant and young child feeding among mothers with child (0-24 months) in Umuahia South Local Government Area of Abia State. The study was conducted in the primary health care centers in Umuahia South L.G.A that offer routine immunization services. Multi-stage random sampling method was used to

select (9) health facilities from the (38) public health facilities covering the (3) zones in Umuahia South L.G.A. A total number of (372) respondents were used to represent the nursing mothers in Umuahia South. A structured questionnaire was used as instrument for data collection after establishing the validity and reliability. The questionnaire was divided into (4) sections. Sections A&B elicited the socio-demographic characteristics of the mother and child respectively, section C revealed the knowledge of mothers on infant and young child feeding, section D elicited the attitude of mothers towards infant and young child feeding while section E addressed the practice of infant and young child feeding among mothers of different socio demographic status with child 0-24 months. Written consent was obtained from the Local Government Chairman, the Health Authority Secretary, Officers in charge of the various health facilities and the nursing mothers that were studied. Data analysis was done using Statistical Package for Social Science (SPSS) version 2010 and the results were presented in tables, frequencies, percentages and bar charts.

3.2 Area of Study

The study took place at Umuahia South Local Government Area, Abia State. Umuahia South is one of the 17 Local Government Areas of Abia State. Abia State is one of the thirty-six (36) States that constitute the Federal Republic of Nigeria. Abia was carved out of the former Imo State in 1991. The name "Abia" is an abbreviation of four of Abia state's densely populated regions Aba, Bende, Isuikwuato, and Afikpo. Afikpo is no longer

in Abia State since the creation of Ebonyi State. Abia has 3 senatorial zones namely; Abia North comprising of Umunneochi, Isiukwuato, Bende, Ohafia and Arochukwu Local Government Areas. Abia Central which is made up of Ikwuano, Umuahia North, Umuahia South, Isiala Ngwa North and Osisioma Ngwa Local Government Areas and lastly Abia South which is made up of Aba North, Aba South, Ukwa East, Ukwa West, Ugwunagbor, Obingwa and Isiala Ngwa South Local Government Areas.

Abia is mainly the Igbo ethnic group. The Igbo people, who are one of the indigenous people of South Eastern part of Nigeria, make up 95% of the population. Their traditional language, Igbo is in widespread use. English is also widely spoken, and serves as the official language in governance and business. Abians over 2.4 million people are mainly Christians, the different languages spoken by Abians includes Ibibio, Ibuoro, Nkari, Itumbuzo and Anang. There are caves that are located in Amakama, Umunneochi, Isiukwuato, Ohafia and Ihechiowa and the war museum at Umuahia which serve as tourist cites.

Abia State is blessed with abundant potentials that are scattered all over the state, to harness these, the Ministry of Culture and Tourism created in 2010 was responsible for the identification and documentation of tourism potentials in the State such as the long juju of Arochukwu which served as an arbitration court for indigenes and was used for settlement of disputes, it was later the exit for slave trade by the Europeans and has gained international recognition in historical perspective. The Azumiri blue river,

the carves located at Amakama, Umunneochi, Isuikwuato, Ohafia, Ihechiowa and the War Museum at Umuahia are all tourist sites.

Abia State, which occupies about 6,320 square kilometres, is bounded on the North and Northeast by the states of Anambra, Enugu, and Ebonyi, To the west of Abia is Imo State, to the east and southeast are Cross River State and Akwa-Ibom State respectively and to the south is Rivers State. The Southern part of the State lies within the riverine part of Nigeria, it is a low-lying tropical rainforest with some oil-palm brush, the southern portion gets heavy rainfall of about 2,400 millimetres (94 in) per year and is especially intense between the months of April through October. The rest of the State is moderately high plain and wooded savannah. The most important rivers in Abia State are the Imo and Aba Rivers which flow into the Atlantic Ocean through Akwa Ibom State.

Crude oil and gas production is a prominent activity, as it contributes over 39% of the State's GDP. However, the indigenous oil companies- through the Marginal Fields Programme (MFP) have not found it easy to attract the requisite funding and infrastructural capacity to explore some of the marginal oil fields which are about 50 in the State. The manufacturing sector only accounts for 2% of the GDP. The industrial centre of the state is in Aba, with textile manufacturing, pharmaceuticals, soap, plastics, cement, footwear, and cosmetics. In addition to the above, Abia State Government has just built a 9,000 capacity multipurpose International Conference Centre in Umuahia. This edifice of international standard was

built by Governor T.A Orji to enhance tourism as well as boost the state economy through hosting of major International and Local events.

With its adequate seasonal rainfall, Abia has much arable land that produces yams, maize, potatoes, rice, cashews, plantains, taro, and cassava. Oil palm is the most important cash crop.

Abia State is one of the Oil Producing States in the country that has over 100 oil wells and 3 installed flow stations.

There are four universities in the state: the federal-owned Michael Okpara University of Agriculture at Umudike, the State-owned Abia State University in Uturu, the Gregory University Uturu and Rhema University in Aba, both privately owned, the Abia State Polytechnic, the Abia State College of Education Technical Arochukwu. There are two tertiary hospitals, the Federal Medical Centre in Umuahia and the Abia State University Teaching Hospital in Aba, which serve as referral hospitals in the State and other general hospitals in Aba, Arochukwu, Abiriba, Isuikwuato , Umunneochi,Ikwuano and Isiala Ngwa. There are two major power plants in Abia, The Alaoji Power Plant and the Geometric Power plant. Abia is one of the most peaceful states in Nigeria and has been a "haven" for foreign investors. The state's population has grown rapidly since its creation and the slogan for Abia State is God’s Own State.

Umuahia South L.G.A is found in Abia Central Senatorial Zone. It is a semi urban area with it’s headquarter at Ubakala. Umuahia South L.G.A is

bounded in the North by Afaraukwu in Umuahia North L.G.A. in the South by Ntigha in Isialangwa North L.G.A. in the East by Ikputu Isiala-Ngwa North L.G.A and in the West by Obowo and Mbaise in Imo State. Umuahia South has 13 wards namely: Ahiaukwu A, Ahiaukwu B, Amakama, Ekenobizi, Ezeleke, Eziama, Ohiya, Old Umuahia, Nsirimo, Ogbodiukwu, Ubakala A and Ubakala B which is divided into 3 zones namely: Olokoro zone with the following villages, Old Umuahia, Amakama, Umuobia, Umuntu, Amangwo, Itaja, Itu, Umuoparaozara, Umuitowe, Ahiaukwu, Okwu and Agbama. Ubakala zone is made up of the following; Mgbarakuma, Laguru, Ipupe, Avodim, Oyimo, Umuogo, Nsukwe, Amibo, Abam, Amuzu, Amuzuobinubi, Eziama and Nsirimo while Umuokpara zone is made up of Amankwo, Amachara, Ezeleke, Ekenobizi, Umuabali, Umuihe, Ehume, Ogbodiukwu, Ogbodinibe, Ohiya, Umunwanwa, Umuanya, Dikeuwu, Umuajameze and Dikenta.

Umuahia South L.G.A. has a total population of 181, 816 with 85414 males and 96402 females (NPOPC, 2006).

The major source of power supply in Umuahia South is electricity with its source from Power Holding Corporation of Nigeria (PHCN) from Enugu Electricity Distribution Company (EDDC), though, some privileged ones use generators when there is no power supply to the area. The occupation of the indigenes is mainly farming, okada riding, and petty-trading whereas the remaining occupants are drivers and civil servants. There is high level of poverty among the inhabitants, illiteracy and also increased rate of teenage pregnancy.

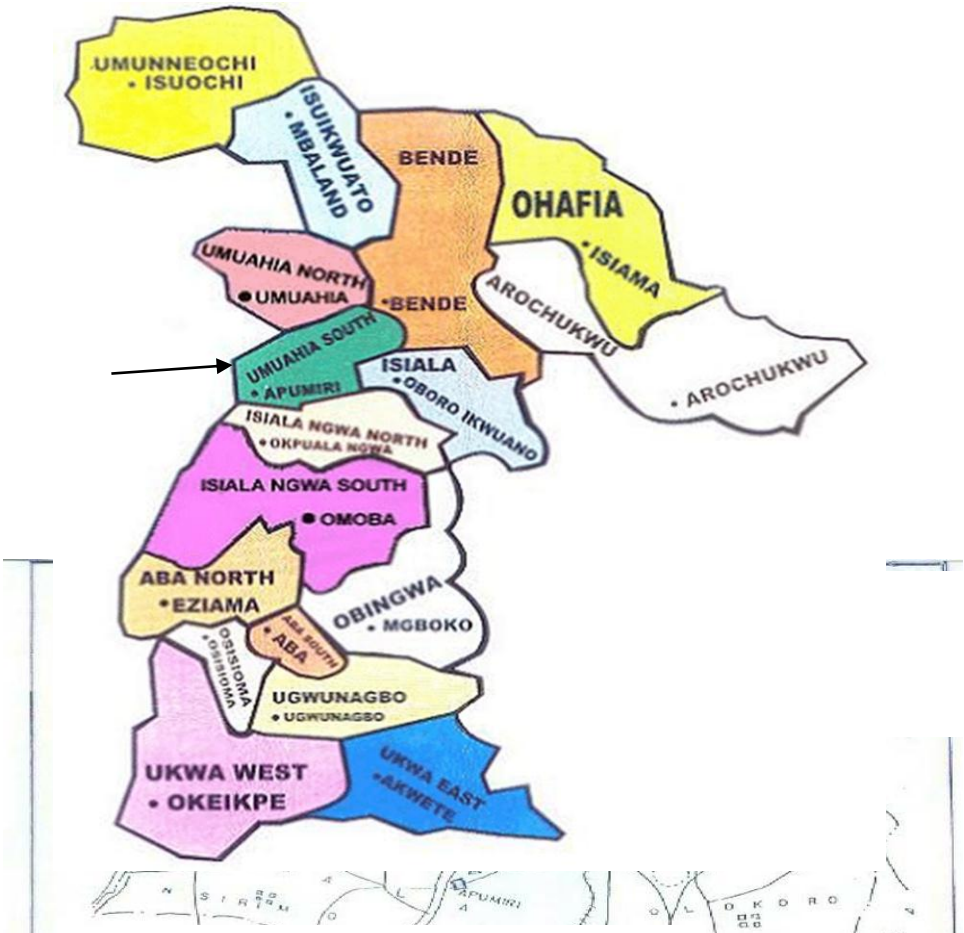

FIG. 3 Map of Abia State

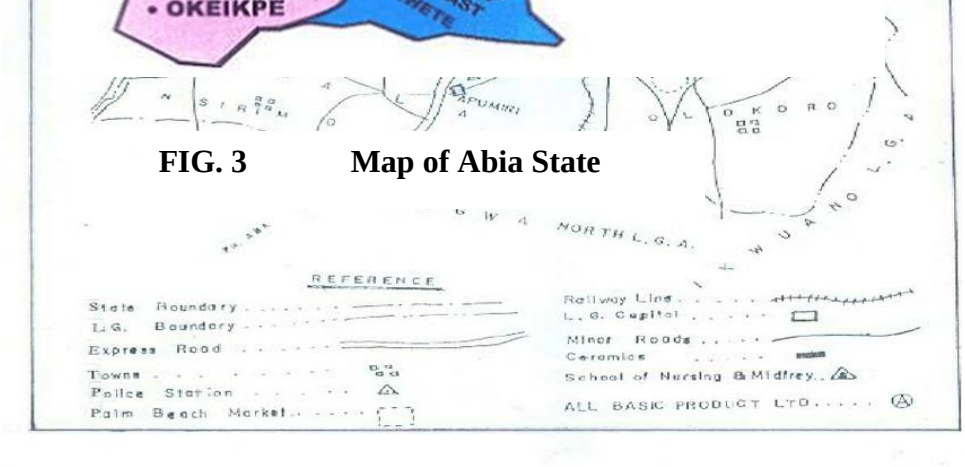

Fig. 4 Map of Umuahia South L.G.A

3.3 Study Population

Umuahia South L.G.A. has a total population of 181,816 with 85,414 males and 96,402 females. There are 5325 nursing mothers attending immunization/infant welfare clinic. The study focused on 372 nursing mothers with child (0-24months) that attends immunization/infant welfare clinic or to access any other health care in Umuahia South L.G.A.

3.4 Sample Size and Sampling Technique

3.4.1 Sample Size

The sample size for the study was 372 drawn from nursing mothers attending infant welfare/immunization in the selected 9 health facilities in Umuahia South Local Government Area using random and systematic sampling techniques. The size was determined using The Taro Yamane (1967) formula which is expressed thus:

$$n = \frac{N}{1 + N\,(e)^2} \quad \text{..... equation 1}$$

Where

n = sample size required

N = total population

1 = constant

e = level of significance $(0.05)^2$

Substituting the figures into the equation, we get

$$n = \frac{5{,}325}{1 + 5{,}325\,(0.05)^2} = 372$$

(Taro Yamane (1967)

3.4.2 Sampling methods

The sampling technique used in this study was Multi-stage sampling techniques. Umuahia South Local Government Area was first divided into 3 zones namely: Ubakala Zone, Olokoro and Umuopara Zones. On each ward one health facility was randomly selected using ballot papers, a total of 9 Health Facilities were selected and the selected ones were used to represent the L.G.A.

At the facility level, systematic sampling technique was used – the researcher used available sitting position to draw selections. The average number of mothers attending child immunization per health facility was obtained by dividing the average immunization days in the clinic, to obtain the average per day. Then, the average per day was divided by the number of the available sitting positions in the immunization centre, and the value obtained was used to select every mother that sits at the corresponding intervals, starting from left to right. At situations where any of the selected mothers refused consent for participation, the next mother to the right of that sitting position was selected. The 3 zones of Umuahia South were involved in the study, it is a facility based study which was conducted in Public Health facilities of Umuahia South Local Government Area. A total number of 372 respondents were selected from the 9 ward health centres, out of 38 public health facilities in Umuahia South, Olokoro zone has 12 health centres, Ubakala zone has 13 health centres and Umuopara 13 public health centres. The population of women of ch/ild bearing age that

attends infant welfare clinic is 5325. M & E Unit (USLG, 2018) by Gliem J. A. – 2013)

3.5 Instrument for Data Collection

The instrument used for data collection was structured questionnaire.

The questionnaire was designed to elicit information on socio-demographic characteristics of the mother and the index child, knowledge, attitudes and practices towards infant and young child feeding. The questionnaire was divided into five sections thus; A, B, C, D, and E. Section A consists of questions on bio-data which include age in years, marital status, highest educational qualification, occupation and parity. Section B consists of questions on index characteristics such as age of the child, sex, birth order and place of birth. Section C consists of questions on knowledge of infant and young feeding. Section D consists of questions on the attitudes of mother toward infant and young child feeding. While section E consists of the questions on the practice of the infant and young child feeding among mothers with child 0-24 months. A total of number of 400 questionnaire were distributed but 380 were returned, only 372 questionnaire were properly filled. Therefore, data is based on 372 mothers to represent the nursing mothers in Umuahia South Local Government Area.

3.6 Validity of Instrument

The questionnaire was carefully constructed by the researcher, modified by the researcher's supervisors and validated by two other experts in the Department of public health, Federal University of Technology, Owerri to

ensure the suitability of language used, appropriateness of the content and the extent to which the items elicited the expected information based on the objectives of the study. The corrections were made before the final draft.

3.7 Reliability of the Instrument

The test and retest method was used to test the reliability of the questionnaire. The researcher conducted a trial test by administering the questionnaire to 20 nursing mothers with similar characteristics with the respondents but in a location that was not part of the study and the process was repeated two weeks later and the results were scaled and compared for consistency test via Crombach Alpha Test, a reliability coefficient of 90% was obtained. The scale for reliability test is three (3) scales for level of knowledge and four (4) scales level of attitude of Mothers with Child 0-24 Months towards infant and young child feeding. $\alpha = \frac{n}{n-1}\left(\sigma X2 - \sum_{i=1}^{n} \sigma i2\right) / \sigma X2$ (where n is the number of items, σX2 is the total test score variance, and σi2 is the item variance). (International Encyclopedia of Education (Third Edition), 2010)

3.8 Method of Data Collection

Structured and validated copies of questionnaire were administered by the researcher and 7 trained research assistants. The entry point were the Local Government Chairman with the consent of the Health Authority Secretary and the Ward Development Chairmen of the various wards who consented to the study at the different health facilities, the officers in-charge were met, the researcher introduced her team and the purpose of visit. Each health facility was visited on separate days to collect their data. On each visit, the researcher and her team were introduced to the nursing

mothers that came for infant welfare/ immunization in that particular health facility and their consent sought.

The questionnaire were administered to the respondents after a written informed consent was obtained. The literate respondents were allowed to fill the questionnaire themselves while the not very literate respondents were assisted by the research assistants to complete the questionnaire by recording their responses after interpreting in vernacular. The researcher and her team visited all the health facilities that were included in the study until the desired number of respondents was reached, this is to ensure completeness and avoid duplication of information. A total number of 400 copies of questionnaire were distributed, 380 copies were returned and only 372 questionnaire were properly filled, therefore, data is based on 372 nursing mothers in Umuahia South Local Government Area.

3.9 Method of Data Analysis

The data was analysed using the IBM-SPSS statistics version 21 and Microsoft Excel (2010). Descriptive method was used to summarise the data characteristics. Frequency distribution tables were constructed for all class variables and were all expressed as the percentage of the distribution. Z-test, Chi Square and Analysis of Variance (ANOVA) were used to test the hypothesis.

The knowledge questions were scored as low level of knowledge (0-3), moderate level of knowledge (4-6) and high level of knowledge (7-10) while

the attitude question were scaled using a 4 level scale thus: Strongly Agree = 4, Agree = 3, Disagree = 2 and Strongly Disagree = 1,

3.10 Informed Consent

The study was approved by the Federal University of Science and Technology (FUTO) Owerri, authorised by the Chairman of Umuahia South local Government, Health Authority Secretary of Umuahia South Primary Health Care Authority and informed written consent was gotten from community leaders, heads of facilities and respondents before being allowed to participate in the study, the respondents were also assured of the confidentiality throughout the study period.

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

This chapter dealt with the result and presentation of the findings

4.1 Socio-Demographic Characteristics of Mothers with Child 0-24 Months

The table 4.1 showed the socio-demographic characteristics of mothers with Child 0-24 Months; majority 302(81.2%) were between the age group of 31-40 years, followed by 50(13.5%) for age group of 21-30 years, 12(3.2%) for age group of below 20 years and the least was 8(2.2%) for age group of 41-50 years. In relation to marital status, 241(64.8%) were married; single mothers were 125(33.6%) while separated mothers had only 6(1.6%). For educational qualification, 164(44.1%) attended tertiary education, secondary 105(28.2%) and primary education recorded 103(27.7%).

Table 4.1: Distribution of mothers with child 0-24 months by their social-demographic characteristic

Variables	Frequency	Percentage (%)
Age (in years)		
Below 20 years	12	3.2
21-30 years	50	13.5
31-40 years	302	81.2
41-50 years	8	2.2
Above 50 years	0	0.0
Total	372	100.0
Marital status		
Single	125	33.6
Married	241	64.8
Separated	6	1.6
Total	372	100.0
Highest Level of Education		
Primary level education	103	27.7
Secondary level education	105	28.2
Tertiary level education	164	44.1
Total	372	100.0
Occupation		
Unemployed/house wife	12	3.2

Farming	8	2.2
Civil/public servant	203	54.5
Trading	140	37.6
Artisan	6	1.6
Others	3	0.8
Total	372	100.0
Parity of the respondents		
1-2	128	34.4
3-4	138	36.8
4-5	106	28.8
Total	372	100.0

4.2 The Index Child Social-Demographic Characteristic

The table 4.2 showed the socio--demographic characteristics of the index child; majority 155(41.7%) were between the age 13-18 months, followed by 109(29.3%) for 7-12 months, 108(29%) for 0-6 months and no body for 19-24 months. In relation to Sex of the child, 211(56.7%) were male while 161(43.3% were female

For birth order; majority 162(43.5%) had 3rd order, followed by 2nd order with 130(34.9%), 30(8.1%) was in 1st and 4th order while 5th and 6th order had 10(2.7%) respectively.

Also, the place of birth of the child; majority 254(68.3%) were born at Government Health Centre, 48(12.9%) were born at government hospital, 47(12.6%) were from TBA's place, 21(5.6%) and private hospitals and only 2(0.53%) were born at mission health centre.

Table 4.2: Distribution of the Index Child by their Social-Demographic Characteristic

Variable	Practice Infant and Young Child Feeding		Total (N=372)
	Yes	No	
Age of the child			
0-6 months	99(91.7%)	9(8.3%)	108(29%)
7-12 months	79(64.2%)	30(27.5%)	109(29.3%)
13-18 months	105(67.7%)	50(32.3%)	155(41.7%)
Total	283(72%)	89(28%)	372(100%)
Sex of the child			
Male	187(88.6%)	24(11.4%)	211(56.7%)
Female	102(63.3%)	59(36.6%)	161(43.3%)
Total	289(77.7%)	83(22.3%)	372(100%)
Birth order of the children			
1st order	18(60%)	12(40%)	30(8.1%)
2nd order	95(73%)	35(26.9%)	130(34.9%)
3rd order	103(%)	59(36.6%)	162(43.5%)
4th order	18(60%)	12(40%)	30(8.1%)
5th order	8(80%)	2(20%)	10(2.7%)
6th order	8(80%)	2(20%)	10(2.7%)
Total	250(%)	122(%)	372(100%)
Place of birth			
TBA's place	37(78.7%)	10(21.3%)	47(12.6%)
Government Health Centre	169(66.5%)	85(33.5%)	254(68.3%)
Government hospital	38(79.2%)	10(20.1%)	48(12.9%)
Private hospital	16(76.2%)	5(23.8%)	21(5.6%)
Mission health centre	2(100%)	0	2(0.53%)
Total	224(60.3%)	148(39.7%)	372(100%)

4.3 Relationship between knowledge and complementary feeding

Table 4.3 showed the level of knowledge of mothers with child 0-24 months on infant and young child feeding; majority 300(80.7%) admitted having heard about exclusive breastfeeding, 282(75.7%) said that the baby should be put to breast milk within the first hour.

182 respondents said that breast milk is the first liquid a baby should receive immediately after birth.

Most respondents 224(60.2%) said that the baby should be introduced to family foods by six months of age.

Responding to the question on when the baby should be weaned, most respondents 114(30.6%) said the baby should be weaned at 13-18 month whereas 110 respondents representing 29.6% said that the baby should be weaned at 7-12 months. It means that there is a good knowledge of complementary feeding by the mothers.

Table 4.3 Relationship between knowledge of the respondents and complementary feeding

	Complementary feeding starts at 6 months						
Have you heard about exclusive breastfeeding	**Strongly Agree**	**Agree**	**Disagree**	**Strongly Disagree**	**Total**	**Chi-Square**	**P-Value**
Yes	190 (51.1%)	110(29.6%)	18 (4.8%)	18 (4.8%)	336(90.3%)	234.734	0.000
No	0 (0.0%)	0 (0.0%)	0 (0.0%)	36 (9.7%)	36 (9.7%)		
Total	190 (51.1%)	110 (29.6%)	18 (4.8%)	54 (14.5%)	372 (100.0%)		
Meaning of exclusive breastfeeding							
Feeding the baby with the mothers breast milk only without water or other food or fluid within the first 6 months	190 (51.1%)	110 (29.6%)	0 (0.0%)	0 (0.0%)	300 (80.6%)	496.000	0.000
Feeding the baby with water	0 (0.0%)	0 (0.0%)	18 (4.8%)	18 (4.8%)	36 (9.7%)		

Feeding the baby with infant formula	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)	18 (4.8%)		
Feeding the baby with other family foods	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)	18 (4.8%)		
Total	190 (51.1%)	110 (29.6%)	18 (4.8%)	54 (14.5%)	372 (100.0%)		
When should the baby be put to breast after birth							
Immediately/within the 1st hour	190(51.1%)	92 (24.7%)	0 (0.0%)	0 (0.0%)	282 (75.8%)	568.577	0.000
Within the 1st day (1-23 hours)	0 (0.0%)	18 (4.8%)	18 (4.8%)	0 (0.0%)	36 (9.7%)		
More than 24 hours	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)	18 (4.8%)		
When baby is ready	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)	18 (4.8%)		
When mother is ready	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)	18 (4.8%)		
Total	190 (51.1%)	110 (29.6%)	18 (4.8%)	54 (14.5%)	372 (100.0%)		
At what age should a baby should start eating food with addition of breast milk							
3 months	76 (20.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	76 (20.4%)	450.704	0.000
6 months	114 (30.6%)	110 (29.6%)	18 (4.8%)	0 (0.0%)	242 (65.1%)		
9 months	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)	18 (4.8%)		
12 months	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)	18 (4.8%)		
Others	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)	18 (4.8%)		
Total	190 (51.1%)	110 (29.6%)	18 (4.8%)	54 (14.5%)	372 (100.0%)		
The first liquid a new born should receive							
Breast milk	190 (51.1%)	92 (24.7%)	0 (0.0%)	0 (0.0%)	282 (75.8%)	413.765	0.000
Glucose water	0 (0.0%)	18 (4.8%)	18 (4.8%)	18 (4.8%)	54 (14.5%)		
Plain water	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)	18 (4.8%)		
Infant formula	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)	18 (4.8%)		
Total	190 (51.1%)	110 (29.6%)	18 (4.8%)	54 (14.5%)	372 (100.0%)		
At what age should a baby be weaned							

1-6 months	19 (5.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	19 (5.1%)	468.780	0.000
13-18 months	114 (30.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	114 (30.6%)		
24 months	57 (15.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	57 (15.3%)		
7-12 months	0 (0.0%)	110 (29.6%)	18 (4.8%)	36 (9.7%)	164 (44.1%)		
19-24 moths	0 (0.0)%	0 (0.0%)	0 (0.0%)	18 (4.8%)	18 (4.8%)		
Total	190 (51.1%)	110 (29.6%)	18 (4.8%)	54 (14.5%)	372 (100.0%)		

4.4 Knowledge of Mothers with Child 0-24 Months on Consistency of food at 6-9 and 9-12 Months

Out of 372 of respondents; 167(44.9%) said the consistency of food for babies at 6-9 months should be semi-solid and it showed high level of knowledge compared to other forms of food, 153(41.1%) said watery and 52(14%) said solid. At 9-12 months; 182(48.9%) said the consistency of food for babies at 9-12 months should be solid, 170(45.7%) said semi-solid and 20(5.4%) said watery (table 4.4).

Table 4.4: Distribution of respondents by their knowledge on the consistency of food.

Variables		**High Knowledge (7-10)**	**Moderate Knowledge (4-6)**	**Low Knowledge (0-3)**	**Total**
		Freq	**Freq**	**Freq**	
Consistency of food to be at 6-9 months?	Watery	67(43.8)	71(46.4)	15(0.9)	153(41)
	Semi-solid	77(46.1)	56(33.5)	34(20.3)	167(45)
	Solid	15(28.8)	25(48.1)	12(23.1)	52(14)
Consistency of food to be at 9-12 months?	Watery	4(20.0)	10(50.0)	6(30.0)	20(5)
	Semi-solid	80(47.0)	71(42.0)	19(11.0)	170(46)
	Solid	85(46.7)	75(41.2)	22(12.1)	182(49)

4.5a Relationship between Knowledge of Mothers and Socio- demographic characteristics (marital Status, education and occupation)

There is significant relationship between the level of knowledge of mothers with child 0-24 months and their socio-demographic characteristics (marital Status). Using t-test, there is a statistical significant on level of knowledge of mothers in infant and young child feeding and marital Status of the mother (t-test= 8.718 at p = <0.0001 for hearing about exclusive breastfeeding; 2.979 at p = 0.008 showed no significant for knowledge on meaning of exclusive breastfeeding; 1.377 at p = <0.0001 showed no significance for knowledge on how long after birth should the baby be put to breast; 2.703 at p = <0.0001 showed no significant for knowledge on liquid a new born should receive; 1.798 at <0.0001 showed no significance for knowledge on what should be done with the first yellow breast milk; -5.784 at p=<0.0001 for knowledge on when should a baby stop breastfeeding; -1.000 at 0.330 showed no significance for knowledge on at what age should a baby should start eating food with addition of breast milk.

Table 4.5a: Relationship between Knowledge of Mothers and Socio- demographic characteristics (marital Status, education and occupation)

	Marital Status							
Have you heard about exclusive breastfeeding	**Single**	**Married**	**Separated**	**Divorced**	**Others**	**Total**	**Chi-Square**	**P-Value**
Yes	113 (30.4%)	217 (58.3%)	4 (1.1%)	1 (0.3%)	1 (0.3%)	336 (90.3%)	0.665	<0.0001
No	12 (3.2%)	24 (6.5%)	0 (0%)	0 (0%)	0 (0%)	36 (9.7%)		
Total	125 (33.6%)	241 (64.8%)	4 (1.1%)	1 (0.3%)	1 (0.3%)	372 (100%)		
Meaning of exclusive breastfeeding								

Feeding the baby with the mothers breast milk only without water or other food or fluid within the first 6 months	101 (27.2%)	193 (51.9%)	4 (1.1%)	1 (0.3%)	1 (0.3%)	300 (80.6%)	1.491	<0.0001
Feeding the baby with water	12 (3.2%)	24 (6.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	36 (9.7%)		
Feeding the baby with infant formula	6 (1.6%)	12 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Feeding the baby with other family foods	6 (1.6%)	12 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Total	125 (33.6%)	241 (64.8%)	4 (1.1%)	1 (0.3%)	1 (0.3%)	372 (100%)		
When should the baby be put to breast after birth								
Immediately/with in the 1st hour	95 (25.5%)	181 (48.7%)	4 (1.1%)	1 (0.3%)	1 (0.3%)	282 (75.8%)	1.982	<0.0001
Within the 1st day (1-23 hours)	12 (3.2%)	24 (6.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	36 (9.7%)		
More than 24 hours	6 (1.6%)	12 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
When baby ready	6 (1.6%)	12 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
When the mother is ready	6 (1.6%)	12 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Total	125 (33.6%)	241 (64.8%)	4 (1.1%)	1 (0.3%)	1 (0.3%)	372 (100%)		
At what age should a baby should start eating food with addition of breast milk								
3 months	28 (7.5%)	48 (12.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	76 (20.4%)	3.589	<0.0001
6 months	79 (21.2%)	157 (42.2%)	4 (1.1%)	1 (0.3%)	1 (0.3%)	242 (65.1%)		
9 months	6 (1.6%)	12 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
12 months	6 (1.6%)	12 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Others	6 (1.6%)	12 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Total	125 (33.6%)	241 (64.8%)	4 (1.1%)	1 (0.3%)	1 (0.3%)	372 (100%)		
The first liquid a new born should receive								

Breast milk	95 (25.5%)	181 (48.7%)	4 (1.1%)	1 (0.3%)	1 (0.3%)	282 (75.8%)	1.982	<0.0001
Glucose water	18 (4.8%)	36 (9.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	54 (14.5%)		
Plain water	6 (1.6%)	12 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Infant formular	6 (1.6%)	12 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Total	125 (33.6%)	241 (64.8%)	4 (1.1%)	1 (0.3%)	1 (0.3%)	372 (100%)		
At what age should a baby be weaned								
1-6 months	7 (1.9%)	12 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	19 (5.1%)	14.343	<0.0001
13-18 months	40 (10.8%)	73 (19.6%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	114 (30.6%)		
24 months	18 (4.8%)	36 (9.7%)	3 (0.8%)	0 (0.0%)	0 (0.0%)	57 (15.3%)		
7-12 months	54 (14.5%)	108 (29.0%)	0 (0.0%)	1 (0.3%)	1 (0.3%)	164 (44.1%)		
19-24 moths	6 (1.6%)	12 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Total	125 (33.6%)	241 (64.8%)	4 (1.1%)	1 (0.3%)	1 (0.3%)	372 (100%)		

4.5b: Relationship between Knowledge and Age

There is significant relationship between knowledge and age of mothers with child 0-24 months. Using chi-test, there is a statistical significant on level of knowledge of mothers in infant and young child feeding (chi-test= 2.642 at p = <0.000), for hearing about exclusive breastfeeding; 5.919 at p = <0.000, for knowledge on how long after birth should the baby be put to breast; 7.871 at p = <0.000 for knowledge on liquid a new born should receive; 7.871. at p =0.0001.

Table 4.5b: Relationship between Knowledge and Age

	Age in years							
Have you heard about exclusive breastfeeding	**Below 20 years**	**21-30 years**	**31-40 years**	**41-50 years**	**Above 50 years**	**Total**	**Chi-Square**	**P-Value**
Yes	12 (3.2%)	43(11.6%)	272 (73.1%)	8 (2.2%)	1 (0.3%)	336(90.3%)	2.642	<0.000

No	0 (0.0%)	6 (1.6%)	30 (8.1%)	0 (0.0%)	0 (0.0%)	36 (9.7%)		
Total	12 (3.2%)	49 (13.2%)	302 (81.2%)	8 (2.2%)	1 (0.3%)	372 (100%)		
Meaning of exclusive breastfeeding								
Feeding the baby with the mothers breast milk only without water or other food or fluid within the first 6 months	12 (3.2%)	37 (9.9%)	242 (65.1%)	8 (2.2%)	1 (0.3%)	300 (80.6%)	5.919	<0.000
Feeding baby with water	0 (0.0%)	6 (1.6%)	30 (8.1%)	0 (0.0%)	0 (0.0%)	36 (9.7%)		
Feeding the baby with infant formula	0 (0.0%)	3 (0.8%)	15 (4.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Feeding baby with other family foods	0 (0.0%)	3 (0.8%)	15 (4.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Total	12 (3.2%)	49 (13.2%)	302 (81.2%)	8 (2.2%)	1 (0.3%)	372 (100%)		
When should the baby be put to breast after birth								
Immediately/within the 1st hour	12 (3.2%)	34 (9.1%)	227 (61.0%)	8 (2.2%)	1 (0.3%)	282(75.8%)	7.871	<0.000
Within the 1st day (1-23 hours)	0 (0.0%)	6 (1.6%)	30 (8.1%)	0 (0.0%)	0 (0.0%)	36 (9.7%)		
More than 24 hours	0 (0.0%)	3 (0.8%)	15 (4.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
When baby is ready	0 (0.0%)	3 (0.8%)	15 (4.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
When mother is ready	0 (0.0%)	3 (0.8%)	15 (4.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Total	12 (3.2%)	49 (13.2%)	302 (81.2%)	8 (2.2%)	1 (0.3%)	372 (100%)		
At what age should a baby should start eating food with addition of breast milk								
3 months	4 (1.1%)	9 (2.4%)	62 (16.7)	1 (0.3%)	0 (0.0%)	76 (20.4%)	5.959	<0.000
6 months	8 (2.2%)	31(8.3%)	195(52.4%)	7 (1.9%)	1 (0.3%)	242(65.1%)		
9 months	0 (0.0%)	3 (0.8%)	15 (4.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
12 months	0 (0.0%)	3 (0.8%)	15 (4.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Others	0 (0.0%)	3 (0.8%)	15 (4.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Total	12 (3.2%)	49 (13.2%)	302 (81.2%)	8 (2.2%)	1 (0.3%)	372 (100%)		

The first liquid a new born should receive								
Breast milk	12 (3.2%)	34 (9.1%)	227 (61.0%)	8 (2.2%)	1 (0.3%0	282(75.8%)	7.871	<0.000
Glucose water	0 (0.0%)	9 (2.4%)	45 (12.1%)	0 (0.0%)	0 (0.0%)	54 (14.5%)		
Plain water	0 (0.0%)	3 (0.8%)	15 (4.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Infant formular	0 (0.0%)	3 (0.8%)	15 (4.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Total	12 (3.2%)	49 (13.2%)	302 (81.2%)	8 (2.2%)	1 (0.3%)	372 (100%)		
At what age should a baby be weaned								
1-6 months	1 (0.3%)	3 (0.8%)	15 (4.0%)	0 (0.0%)	0 (0.0%)	19 (5.1%)	14.287	<0.000
13-18 months	6 (1.6%)	12(3.2%)	92 (24.7%)	4 (1.1%)	0 (0.0%)	114(30.6%)		
24 months	3 (0.8%)	6 (1.6%)	45 (12.1%0	3 (0.8%)	0 (0.0%)	57 (15.3%)		
7-12 months	2 (0.5%)	25 (6.7%)	135 (36.3%)	1 (0.3%)	1 (0.3%)	164(44.1%)		
19-24 moths	0 (0.0%)	3 (0.8%)	15 (4.0%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Total	12 (3.2%)	49 (13.2%)	302 (81.2%)	8 (2.2%)	1 (0.3%)	372 (100%)		

4.5c: Relationship between Knowledge and Educational qualification

There is significant relationship between the level of knowledge of mothers with child 0-24 months and their educational qualification using chi-test.(Chi-test= 0.113 at p = <0.000) for hearing about exclusive breastfeeding; 0.253 at p = <0.001 showed statistical significance. For knowledge on how long after birth should the baby be put to breast; 0.337 at p = <0.000, for knowledge on when should a baby stop breastfeeding; 4.095 at 0.330 showed statistical significance for knowledge on at what age should a baby should start eating food with addition to breast milk).

Table 4.5c: Relationship between Knowledge and Educational qualification

	Highest educational qualification						
Have you heard about exclusive breastfeeding	**No formal education**	**Primary level of education**	**Secondary level of education**	**Tertiary level of education**	**Total**	**Chi-Square**	**P-Value**
Yes	1 (0.3%)	92 (24.7%)	95 (25.5%)	148 (39.8%)	336 (90.3%)	0.113	<0.0001
No	0 (0.0%	10 (2.7%)	10 (2.7%)	16 (4.3%)	36 (9.7%)		
Total	1 (0.3%)	102 (27.4%)	105 (28.2%)	164 (44.1%)	372 (100%)		
Meaning of exclusive breastfeeding							
Feeding the baby with the mothers breast milk only without water or other food or fluid within the first 6 months	1 (0.3%)	82 (22.0%)	85 (22.8%)	132 (35.5%)	300 (80.6%)	0.253	<0.0000
Feeding the baby with water	0 (0.0%)	10 (2.7%)	10 (2.7%)	16 (4.3%)	36 (9.7%)		
Feeding the baby with infant formula	0 (0.0%)	5 (1.3%)	5 (1.3%)	8 (2.2%)	18 (4.8%)		
Feeding the baby with other family foods	0 (0.0%)	5 (1.3%)	5 (1.3%)	8 (2.2%)	18 (4.8%)		
Total	1 (0.3%)	102 (27.4%)	105 (28.2%)	164 (44.1%)	372 (100%)		
When should the baby be put to breast after birth							
Immediately/within the 1st hour	1 (0.3%)	77 (20.7%)	80 (21.5%)	124 (33.3%)	282 (75.8%)	0.337	<0.0000
Within the 1st day (1-23 hours)	0 (0.0%)	10 (2.7%)	10 (2.7%)	16 (4.3%)	36 (9.7%)		
More than 24 hours	0 (0.0%)	5 (1.3%)	5 (1.3%)	8 (2.2%)	18 (4.8%)		
When the baby is ready	0 (0.0%)	5 (1.3%)	5 (1.3%)	8 (2.2%)	18 (4.8%)		
When the mother is ready	0 (0.0%)	5 (1.3%)	5 (1.3%)	8 (2.2%)	18 (4.8%)		
Total	1 (0.3%)	102 (27.4%)	105 (28.2%)	164 (44.1%)	372 (100%)		
At what age should a baby should start eating food with addition of breast milk							
3 months	1 (0.3%)	22 (5.9%)	21 (5.6%)	32 (8.6%)	76 (20.4%)	4.095	<0.0000

6 months	0 (0.0%)	65 (17.5%)	69 (18.5%)	108 (29.0%)	242 (65.1%)		
9 months	0 (0.0%	5 (1.3%)	5 (1.3%)	8 (2.2%)	18 (4.8%)		
12 months	0 (0.0%)	5 (1.3%)	5 (1.3%)	8 (2.2%)	18 (4.8%)		
Others	0 (0.0%)	5 (1.3%)	5 (1.3%)	8 (2.2%)	18 (4.8%)		
Total	1 (0.3%)	102 (27.4%)	105 (28.2%)	164 (44.1%)	372 (100%)		
The first liquid a new born should receive							
Breast milk	1 (0.3%)	77 (20.7%)	80 (21.5%)	124 (33.3%)	282 (75.8%)		
Glucose water	0 (0.0%)	15 (4.0%)	15 (4.0%)	24 (6.5%)	54 (14.5%)		
Plain water	0 (0.0%)	5 (1.3%)	5 (1.3%)	8 (2.2%)	18 (4.8%)		
Infant formular	0 (0.0%)	5 (1.3%)	5 (1.3%)	8 (2.2%)	18 (4.8%)		
Total	1 (0.3%)	102 (27.4%)	105 (28.2%)	164 (44.1%)	372 (100%)		
At what age should a baby be weaned							
1-6 months	1 (0.3%)	5 (1.3%)	5 (1.3%)	8 (2.2%)	19 (5.1%)	18.986	<0.330
13-18 months	0 (0.0%)	32 (8.6%)	34 (9.1%)	48 (12.9%)	114 (30.6%)		
24 months	0 (0.0%)	15 (4.0%)	16 (4.3%)	26 (7.0%0	57 (15.3%)		
7-12 months	0 (0.0%)	45 (12.1%)	45 (12.1%)	74 (19.9%)	164 (44.1%)		
19-24 moths	0 (0.0%)	5 (1.3%)	5 (1.3%)	8 (2.2%)	18 (4.8%)		
Total	1 (0.3%)	102 (27.4%)	105 (28.2%)	164 (44.1%)	372 (100%)		

4.5d : Relationship between Knowledge and Occupation

There is significant relationship between the level of knowledge of mothers with child 0-24 months and their socio-demographic characteristics (occupation). Using chi-test, there is a statistical significant on level of knowledge of mothers in infant and young child feeding and occupation of the mother (chi-test= 9.414) at p = <0.000 showed statistical significance for knowledge on meaning of exclusive breastfeeding; 12.519 at p = <0.000 for knowledge on when should a baby stop breastfeeding, 11.225 at 1.000* showed statistical significance for knowledge on at what age should a baby should start eating food with addition to breast milk).

Table 4.5d: Relationship between Knowledge and Occupation

	Occupation of the respondents								
Have you heard about exclusive breastfeeding	**Unemployed/housewife**	**Farming**	**Civil/public servant**	**Trading**	**Artisan**	**Others**	**Total**	**Chi-Square**	**P-Value**
Yes	12 (3.2%)	6 (1.6%)	185 (49.7%)	126 (33.9%)	6 (1.6%)	1 (0.3%)	336 (90.3%)		
No	0 (0.0%)	2 (0.5%)	20 (5.4%)	14 (3.8%)	0 (0.0%)	0 (0.0%)	36 (9.7%)		
Total	12 (3.2%)	8 (2.2%	205 (55.1%)	140 (37.6%)	6 (1.6%)	1 (0.3%)	372 (100%)		
Meaning of exclusive breastfeeding									
Feeding the baby with the	12 (3.2%)	4 (1.1%)	165 (44.4%)	112 (30.1%)	6 (1.6%)	1 (0.3%)	300 (80.6%)	9.414	<0.000
mothers breast milk only without water or other food or fluid within the first 6 months	0 (0.0%)	2 (0.5%)	20 (5.4%)	14 (3.8%)	0 (0.0%)	0 (0.0%)	36 (9.7%)		
Feeding the									

baby with water									
Feeding the baby with infant formula	0 (0.0%)	1 (0.3%)	10 (2.7%)	7 (1.9%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Feeding the baby with other family foods	0 (0.0%)	1 (0.3%)	10 (2.7%)	7 (1.9%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Total	12 (3.2%)	8 (2.2%	205 (55.1%)	140 (37.6%)	6 (1.6%)	1 (0.3%)	372 (100%)		
When should the baby be put to breast after birth									
Immediately/within the 1st hour	12 (3.2%)	3 (0.8%)	155 (41.7%)	105 (28.2%)	6 (1.6%)	1 (0.3%)	282 (75.8%)	12.519	<0.000
Within the 1st day (1-23 hours)	0 (0.0%0	2 (0.5%)	20 (5.4%)	14 (3.8%)	0 (0.0%)	0 (0.0%)	36 (9.7%)		
More than 24 hours	0 (0.0%)	1 (0.3%)	10 (2.7%)	7 (1.9%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
When the baby is ready	0 (0.0%)	1 (0.3%)	10 (2.7%)	7 (1.9%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
When the mother is ready	0 (0.0%)	1 (0.3%)	10 (2.7%)	7 (1.9%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Total	12 (3.2%)	8 (2.2%	205 (55.1%)	140 (37.6%)	6 (1.6%)	1 (0.3%)	372 (100%)		
At what age should a baby should start eating food with addition of breast milk									
3 months	4 (1.1%)	0 (0.0%)	44 (11.8%)	28 (7.5%)	0 (0.0%)	0 (0.0%)	76 (20.4%)	11.225	<0.000
6 months	8 (2.2%)	5 (1.3%)	131 (35.2%)	91 (24.5%)	6 (1.6%)	1 (0.3%)	242 (65.1%)		
9 months	0 (0.0%)	1 (0.3%)	10 (2.7%)	7 (1.9%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
12 months	0 (0.0%)	1 (0.3%)	10 (2.7%)	7 (1.9%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Others	0 (0.0%)	1 (0.3%)	10 (2.7%)	7 (1.9%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Total	12 (3.2%)	8 (2.2%	205 (55.1%)	140	6	1	372		

				(37.6%)	(1.6%)	(0.3%)	(100%)		
The first liquid a new born should receive									
Breast milk	12 (3.2%)	3 (0.8%)	155 (41.7%)	105 (28.2%)	6 (1.6%)	1 (0.3%)	282 (75.8%)	12.519	<0.000
Glucose water	0 (0.0%)	3 (0.8%0	30 (8.1%)	21 (5.6%)	0 (0.0%)	0 (0.0%)	54 (14.5%)		
Plain water	0 (0.0%)	1 (0.3%)	10 (2.7%)	7 (1.9%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Infant formular	0 (0.0%)	1 (0.3%)	10 (2.7%)	7 (1.9%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Total	12 (3.2%)	8 (2.2%	205 (55.1%)	140 (37.6%)	6 (1.6%)	1 (0.3%)	372 (100%)		
At what age should a baby be weaned									
1-6 months	1 (0.3%)	0 (0.0%)	11 (3.0%)	7 (1.9%)	0 (0.0%)	0 (0.0%)	19 (5.1%)	21.340	1.000*
13-18 months	6 (1.6%)	0 (0.0%)	64 (17.2%)	42 (11.3%)	2 (0.5%)	0 (0.0%)	114 (30.6%)		
24 months	3 (0.8%)	0 (0.0%)	30 (8.1%)	21 (5.6%)	3 (0.8%)	0 (0.0%)	57 (15.3%)		
7-12 months	2 (0.5%)	7 (1.9%)	90 (24.2%)	63 (16.9%)	1 (0.3%)	1 (0.3%)	164 (44.1%)		
19-24 moths	0 (0.0%)	1 (0.3%)	10 (2.7%)	7 (1.9%)	0 (0.0%)	0 (0.0%)	18 (4.8%)		
Total	12 (3.2%)	8 (2.2%	205 (55.1%)	140 (37.6%)	6 (1.6%)	1 (0.3%)	372 (100%)		

4.6a Attitude of Mothers with Child 0-24 Months of different Socio-Characteristics towards infant and young child feeding

The result in table 4.6 showed the attitude of mothers with child 0-24 months of different socio-demographic characteristics towards infant and young child feeding; majority 209(56.2%) strongly agreed that the baby should be breastfed exclusively for the first 6 months, 109(29.3%) agreed, 36(9.7%) disagreed and 18(4.8%) strongly disagreed. Babies should be breastfed day and night; 282(75.8%) strongly agreed, 54(14.5%) agreed, 18(4.8%) disagreed and 18(4.8%) strongly disagreed.

Babies should be introduced to family food at 6 months; 289(77.7%) strongly agreed, 61(16.4%) agreed, 17(4.6%) disagreed and 5(1.3%) strongly disagreed. The consistency of baby's food should be semi-solid; 250(67.2%) strongly agreed, 99(26.6%) agreed, 19(5.1%)

disagreed and 4(1.1%) strongly disagreed 199(53.5%) agreed, 6(1.6%) disagreed and 6(1.6%) strongly disagreed.

Table 4.6a: Frequency distribution based on Attitude of Mothers

Variables	Frequency	Percentage (%)
Baby should be breastfed exclusively for the first 6 months		
Strongly agree	209	56.2
Agree	109	29.3
Disagree	36	9.7
Strongly disagree	18	4.8
Total	372	100.0
Colostrum (the first milk) should not be thrown away		
Strongly agree	264	71.0
Agree	72	19.4
Disagree	18	4.8
Strongly disagree	18	4.8
Total	372	100.0
There are no difficulties in breastfeeding babies exclusively		
Strongly agree	264	71.0
Agree	72	19.4
Disagree	18	4.8
Strongly disagree	18	4.8
Total	372	100.0
Babies should be breastfed day and night		
Strongly agree	282	75.8
Agree	54	14.5
Disagree	18	4.8

Strongly disagree	18	4.8
Total	372	100.0
Mothers should feel free to breastfed their babies in the public places		
Strongly agree	209	56.2
Agree	91	24.5
Disagree	54	14.5
Strongly disagree	18	4.8
Total	372	100.0
Babies should be introduced to family food at 6 months		
Strongly agree	246	66.1
Agree	90	24.2
Disagree	18	4.8
Strongly disagree	18	4.8
Total	372	100.0
The consistency of baby's food should be semi-solid		
Strongly agree	190	51.1
Agree	110	29.6
Disagree	18	4.8
Strongly disagree	54	14.5
Total	372	100.0
Baby's health is important if the label's preparation instruction is followed		
Strongly agree	190	51.1
Agree	146	39.2
Disagree	18	4.8
Strongly disagree	18	4.8
Total	372	100.0
After feeding a baby with infant formula, the remnant should be thrown away		
Strongly agree	209	56.2

Agree	91	24.5
Disagree	36	9.7
Strongly disagree	36	9.7
Total	372	100.0

4.6b Relationship between Attitude and Age

There is significant relationship between attitude of mothers with child 0-24 months and their socio-demographic characteristics (age of mothers). Using chi-test, there is a statistical significant on attitude of mothers in infant and young child feeding and age of the mother (chi-test= 16.715) at p = <0.000 for baby should be breastfed exclusively for the first 6 months; 10.089 at p = <0.000 for Colostrum (the first milk) should not be thrown away; 10.089 at p = <0.000 for there are no difficulties in breastfeeding babies exclusively; 7.871 at p = <0.000 for babies should be breastfed day and night; 1667.4 at p=<0.000 for Mothers should feel free to breastfed their babies in the public places.

Table 4.6b Relationship between Attitude and Age

	Strongly agree	**Agree**	**Disagree**	**Strongly disagree**	**Total**	**Chi-Square**	**P-Value**
Age in years	**Baby should be breastfed exclusively for the first 6 months**						
Below 20 years	11 (3.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	12 (3.2%)	16.715	<0.000
21-30 years	23 (6.2%)	17 (4.6%)	6 (1.6%)	3 (0.8%)	49 (13.2%)		
31-40 years	167 (44.9%)	90 (24.2%)	30 (8.1%)	15 (4.0%)	302 (81.2%)		
41-50 years	8 (2.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	8 (2.2%)		
Above 50 years	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Total	209 (56.2%)	109 (29.3%)	36 (9.7%)	18 (4.8%)	372 (100%)		
Age in years	**Colostrum (the first milk) should not be thrown away**						
Below 20 years	12 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	12 (3.2%)	10.089	<0.000

21-30 years	31 (8.3%)	12 (3.2%)	3 (0.8%)	3 (0.8%)	49 (13.2%)		
31-40 years	212 (57.0%)	60 (16.1%)	15 (4.0%)	15 (4.0%)	302 (81.2%)		
41-50 years	8 (2.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	8 (2.2%)		
Above 50 years	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Total	264 (71.0%)	72 (19.4%)	18 (4.8%)	18 (4.8%)	372 (100%)		
Age in years		**There are no difficulties in breastfeeding babies exclusively**					
Below 20 years	0 (0.0%)	12 (3.2%)	0 (0.0%)	0 (0.0%)	12 (3.2%)	10.089	<0.000
21-30 years	12 (3.2%)	31 (8.3%)	3 (0.8%)	3 (0.8%)	49 (13.2%)		
31-40 years	60 (16.1%)	212 (57.0%)	15 (4.0%)	15 (4.0%)	302 (81.2%)		
41-50 years	0 (0.0%)	8 (2.2%)	0 (0.0%)	0 (0.0%)	8 (2.2%)		
Above 50 years	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Total	72 (19.4%)	264(71.0%)	18 (4.8%)	18 (4.8%)	372 (100%)		
Age in years		**Babies should be breastfed day and night**					
Below 20 years	12 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	12 (3.2%)	7.871	<0.000
21-30 years	34 (9.1%)	9 (2.4%)	3 (0.8%)	3 (0.8%)	49 (13.2%)		
31-40 years	227 (61.0%)	45 (12.1%)	15 (4.0%)	15 (4.0%)	302 (81.2%)		
41-50 years	8 (2.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	8 (2.2%)		
Above 50 years	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Total	282 (75.8%)	54 (14.5%)	18 (4.8%)	18 (4.8%)	372 (100%)		
Age in years		**Mothers should feel free to breastfed their babies in the public places**					
Below 20 years	11 (3.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	12 (3.2%)	17.466	<0.000
21-30 years	23 (6.2%)	14 (3.8%)	9 (2.4%	3 (0.8%)	49 (13.2%)		
31-40 years	167 (44.9%)	75 (20.2%)	45 (12.1%)	15 (4.0%)	302 (81.2%)		
41-50 years	8 (2.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	8 (2.2%)		
Above 50 years	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Total	209 (56.2%)	91 (24.5%)	54 (14.5%)	18 (4.8%)	372 (100%)		

4.6c: Relationship between the Attitude and Educational Qualification of Mothers with Child 0-24 Months

There is significant relationship between attitude of mothers with child 0-24 months and their socio-demographic characteristics (education). Using chi-test, there is a statistical significant on attitude of mothers towards infant and young child feeding and education of the mother (chi-test= 0.859 at p = <0.000 for baby should be breastfed exclusively for the first 6 months; 0.431 at p = <0.000 for Colostrum (the first milk) should not be thrown away; 8.461 at p = <0.000 for there are no difficulties in breastfeeding babies exclusively; 0.861 at p = <0.000 for babies should be breastfed day and night; 0.337 at p=<0.330 for Mothers should feel free to breastfed their babies in the public places.

Table 4.6c: Relationship between the Attitude and Educational Qualification of Mothers with Child 0-24 Months.

	Strongly agree	Agree	Disagree	Strongly disagree	Total	Chi-Square	P-Value
Marital Status	**Baby should be breastfed exclusively for the first 6 months**						
Single	71 (19.1%)	36 (9.7%)	12 (3.2%)	6 (1.6%)	125 (33.6%)	6.432	<0.000
Married	133 (35.8%)	72 (19.4%)	24 (6.5%)	12 (3.2%)	241 (64.8%)		
Separated	4 (1.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (1.1%)		
Divorced	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Others	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Total	209 (56.2%)	109 (29.3%)	36 (9.7%)	18 (4.8%)	372 (100%)		
Marital Status	**Colostrum (the first milk) should not be thrown away**						
Single	89 (23.9%)	24 (6.5%)	6 (1.6%	6 (1.6%)	125 (33.6%	2.541	<0.000
Married	169 (45.4%)	48 (12.9%)	12 (3.2%	12 (3.2%)	241 (64.8%)		
Separated	4 (1.1%)	0 (0.0%)	0 (0.0%	0 (0.0%)	4 (1.1%)		
Divorced	1 (0.3%)	0 (0.0%)	0 (0.0%	0 (0.0%)	1 (0.3%)		

Others	1 (0.3%)	0 (0.0%)	0 (0.0%	0 (0.0%)	1 (0.3%)		
Total	264 (71.0%)	72 (19.4%)	18 (4.8%	18 (4.8%)	372 (100%)		
Marital Status	**There are no difficulties in breastfeeding babies exclusively**						
Single	30 (8.1%)	71 (19.1%)	12 (3.2%)	12 (3.2%)	125 (33.6%	7.109	<0.000
Married	60 (16.1%)	133(35.8%)	24 (6.5%)	24 (6.5%)	241 (64.8%)		
Separated	0 (0.0%)	4 (1.1%)	0 (0.0%)	0 (0.0%)	4 (1.1%)		
Divorced	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Others	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Total	91 (24.5%)	209(56.2%)	36 (9.7%)	36 (9.7%)	372 (100%)		
Marital Status	**Babies should be breastfed day and night**						
Single	95 (25.5%)	18 (4.8%)	6 (1.6%	6 (1.6%)	125 (33.6%)	1.982	<0.000
Married	181 (48.7%)	36 (9.7%)	12 (3.2%)	12 (3.2%)	241 (64.8%)		
Separated	4 (1.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (1.1%)		
Divorced	1 0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Others	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Total	282 (75.8%)	54 (14.5%)	18 (4.8%)	18 (4.8%)	372 (100%)		
Marital Status	**Mothers should feel free to breastfed their babies in the public places**						
Single	71 (19.1%)	30 (8.1%)	18 (4.8%)	6 (1.6%)	125 (33.6%)	7.109	<0.330
Married	133 (35.8%)	60 (16.1%)	36 (9.7%)	12 (3.2%)	241 (64.8%)		
Separated	4 (1.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%	4 (1.1%)		
Divorced	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Others	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Total	209 (56.2%)	91 (24.5%)	54 (14.5%)	18 (4.8%)	372 (100%)		

4.6d Relationship between Attitude and Occupation

There is significant relationship between attitude of mothers with child 0-24 months and their socio-demographic characteristics (occupation). Using chi-test, there is a statistical significant on attitude of mothers in infant and young child feeding and occupation of the mother (chi-test= 23.822 at p = <0.000 for baby should be breastfed exclusively for the first 6 months; 16.046 at p =< 0.000 for Colostrum (the first milk) should not be thrown away; 24.649 at p =< 0.000 for there are no difficulties in breastfeeding babies exclusively; 12.519 at p =< 0.000 for babies should be breastfed day and night; 24.649 at p=<0.330 for Mothers should feel free to breastfed their babies in the public places.

Table 4.6d Relationship between Attitude and Occupation

	Strongly agree	Agree	Disagree	Strongly disagree	Total	Chi-Square	P-Value
Occupation of the respondents		**Baby should be breastfed exclusively for the first 6 months**					
Unemployed/house wife	11 (3.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	12 (3.2%)	23.822	<0.000
Farming	0 (0.0%)	5 (1.3%)	2 (0.5%)	1 (0.3%)	8 (2.2%)		
Civil/public servant	115 (30.9%)	60 (16.1%)	20 (5.4%)	10 (2.7%)	205 (55.1%)		
Trading	77 (20.7%)	42 (11.3%)	14 (3.8%)	7 (1.9%)	140 (37.6%)		
Artisan	6 (1.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (1.6%)		
Others	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Total	209 (56.2%)	109 (29.3%)	36 (9.7%)	18 (4.8%)	372 (100%)		
Occupation of the respondents		**Colostrum (the first milk) should not be thrown away**					
Unemployed/house wife	12 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	12 (3.2%)	16.046	<0.000
Farming	2 (0.5%)	4 (1.1%)	1 (0.3%)	1 (0.3%)	8 (2.2%)		

Civil/public servant	145 (39.0%)	40 (10.8%)	10 (2.7%)	10 (2.7%)	205 (55.1%)		
Trading	98 (26.3%)	28 (7.5%)	7 (1.9%)	7 (1.9%)	140 (37.6%)		
Artisan	6 (1.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (1.6%)		
Others	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Total	264 (71.0%)	72 (19.4%)	18 (4.8%)	18 (4.8%)	372 (100%)		
Occupation of the respondents		**There are no difficulties in breastfeeding babies exclusively**					
Unemployed/house wife	1 (0.3%)	11 (3.0%)	0 (0.0%)	0 (0.0%)	12 (3.2%)	24.649	<0.000
Farming	4 (1.1%)	0 (0.0%)	2 (0.5%)	2 (0.5%)	8 (2.2%)		
Civil/public servant	50 (13.4%)	115 (30.9%)	20 (5.4%)	20 (5.4%)	205 (55.1%)		
Trading	35 (9.4%)	77 (20.7%)	14 (3.8%)	14 (3.8%)	140 (37.6%)		
Artisan	0 (0.0%)	6 (1.6%)	0 (0.0%)	0 (0.0%)	6 (1.6%)		
Others	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Total	91 (24.5%)	209 (56.2%)	36 (9.7%)	36 (9.7%)	372 (100%)		
Occupation of the respondents			**Babies should be breastfed day and night**				
Unemployed/house wife	12 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	12 (3.2%)	12.519	<0.000
Farming	3 (0.8%)	3 (0.8%)	1 (0.3%)	1 (0.3%)	8 (2.2%)		
Civil/public servant	155 (41.7%)	30 (8.1%)	10 (2.7%)	10 (2.7%)	205 (55.1%)		
Trading	105 (28.2%)	21 (5.6%)	7 (1.9%)	7 (1.9%)	140 (37.6%)		
Artisan	6 (1.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (1.6%)		
Others	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Total	282	54 (14.5%)	18	18	372 (100%)		

	(75.8%)		(4.8%)	(4.8%)			
Occupation of the respondents	**Mothers should feel free to breastfed their babies in the public places**						
Unemployed/house wife	11 (3.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	12 (3.2%)	24.649	<0.000
Farming	0 (0.0%)	4 (1.1%)	3 (0.8%)	1 (0.3%)	8 (2.2%)		
Civil/public servant	115 (30.9%)	50 (13.4%)	30 (8.1%)	10 (2.7%)	205 (55.1%)		
Trading	77 (20.7%)	35 (9.4%)	21 (5.6%)	7 (1.9%)	140 (37.6%)		
Artisan	6 (1.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (1.6%)		
Others	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	1 (0.3%)		
Total	209 (56.2%)	91 (24.5%)	54 (14.5%)	18 (4.8%)	372 (100%)		

4.7 Practice of Infant and Young Child Feeding among Mothers of different socio-[8Demographic with Child 0-24 months

The table 4.8 showed the practice of infant and young child feeding among mothers of different socio-demographic with child 0-24 months; 220(59.1%) said yes babies usually put skin to skin with their mothers after delivery, 122(32.8%) said yes they do give their baby water after delivery while 250(67.2%) do not. From the mothers, 231(62.1%) said breast was the first food you gave to the baby. Also, 272(73.1%) said that sleep with a baby (rooming in) while 100(26.6%) said no. The mothers were asked on frequency of their baby's feeding from 6 months; majority 180(48.4%) said four times or more, 63(16.9%) said 2 times or 3 times, 40(10.8%) said 8 or more times and 6(1.6%) said others. The key moments when you need to wash your hands to prevent germs from reaching food; majority 180(48.4%) said before feeding a child/eating, 80(21.5%) said after going to the toilet/latrine, 40(10.8%) said after cleaning a baby's bottom/changing a baby's nappy and 35(9.4%) said after handling raw food and after handling garbage.

Table 4.7: Distribution of Mothers of different socio-Demographic with Child 0-24 months on the practice of infant and young child feeding

Statements	Frequency	Percentage (%)
Baby put skin to skin with you after delivery		
Yes	220	59.1
No	152	40.9
Total	372	100.0
Baby received water after delivery		
Yes	122	32.8
No	250	67.2
Total	372	100.0
The first food given to the baby after delivery		
Breast milk	231	62.1
Plain water	19	5.1
Glucose water	108	29.0
Infant formula	9	2.4
Family food	5	1.3
Total	372	100.0
Mother slept with baby (rooming in)		
Yes	272	73.1
No	100	26.6
Total	372	100.0
Frequency of feeding the baby from 6 months		
At 0 time pattern of baby's feeding	10	2.7
1 time	10	2.7
2 times	63	16.9
3 times	63	16.9
4 or more	180	48.4
8 or more times	40	10.8
Others	6	1.6
Total	372	100.0
Hand washing practices		
After going to the toilet/latrine	80	21.5
After cleaning a baby's bottom/changing a baby's nappy	40	10.8
Before feeding a child/eating	180	48.4
After handling raw food	35	9.4
After handling garbage	35	9.4
Others	2	0.5
Total	372	100.0

TIME OF INITIATION TO BREASTMILKs

The figure 5 presented the time the baby was initiated to breast milk; 33.9% said within 30 minutes, 33.5% said within the first hour, 22.6% said within the first day, 5.4% said after 24 hours and 2.7% said after 72 hours.

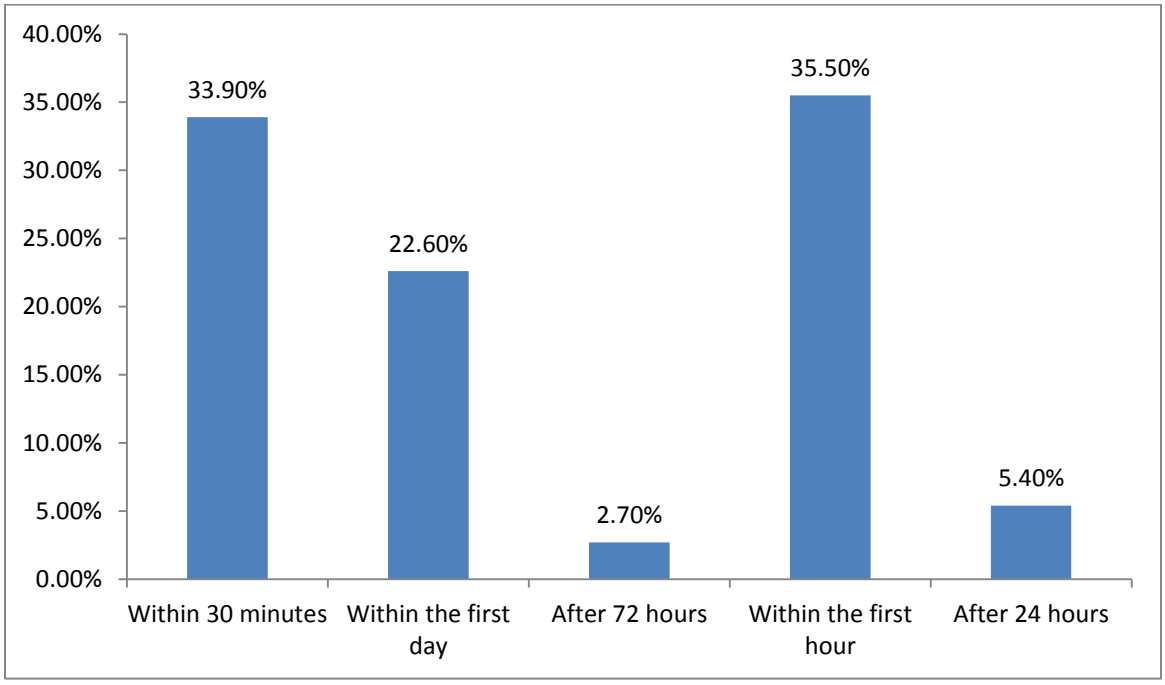

Fig 5.Time of initiation to breast milk

Frequency of feeding the baby

The figure 6 presented the nature of baby feeding; 45.7% said feeding is done when the baby cries, 32.3% said feeding is on demand, 8.6% said after every 3-4 hour, 5.4% said feeding using a schedule and others.

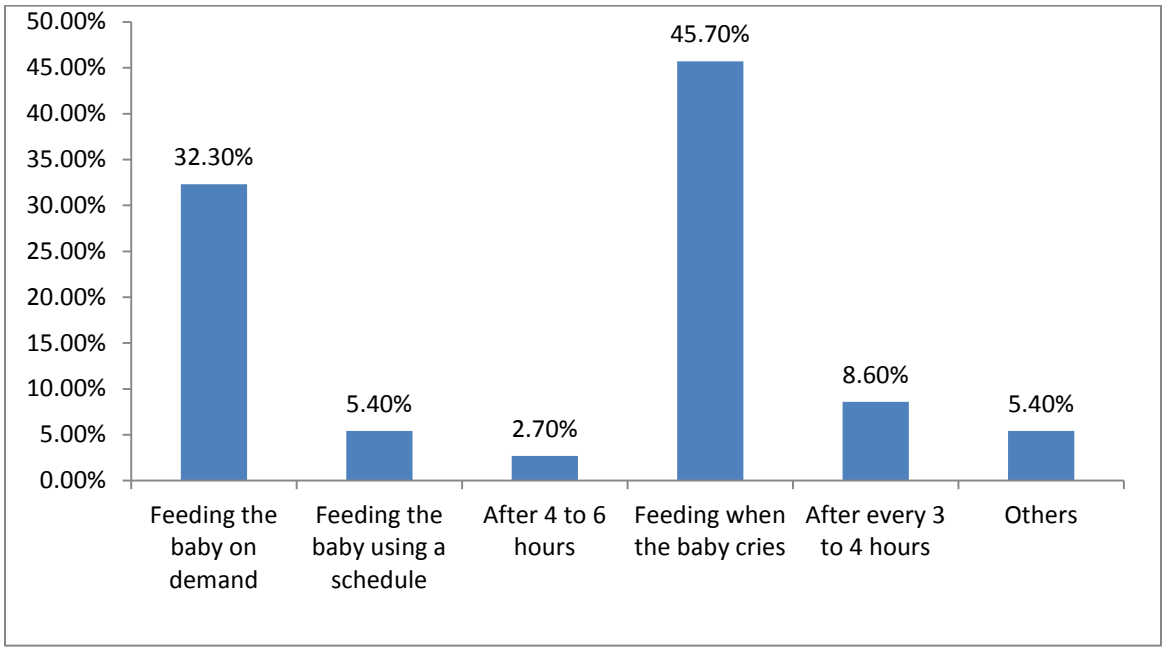

Figure 6: Frequency of feeding the baby

When complementary feeding was started

The figure 7 presented the starting of complementary feeding; 51.1% said 6 months, 22.8% said at 3 months, 16.1% said 5 months, 7.3% said 4 months and 2.7% said 7 months.

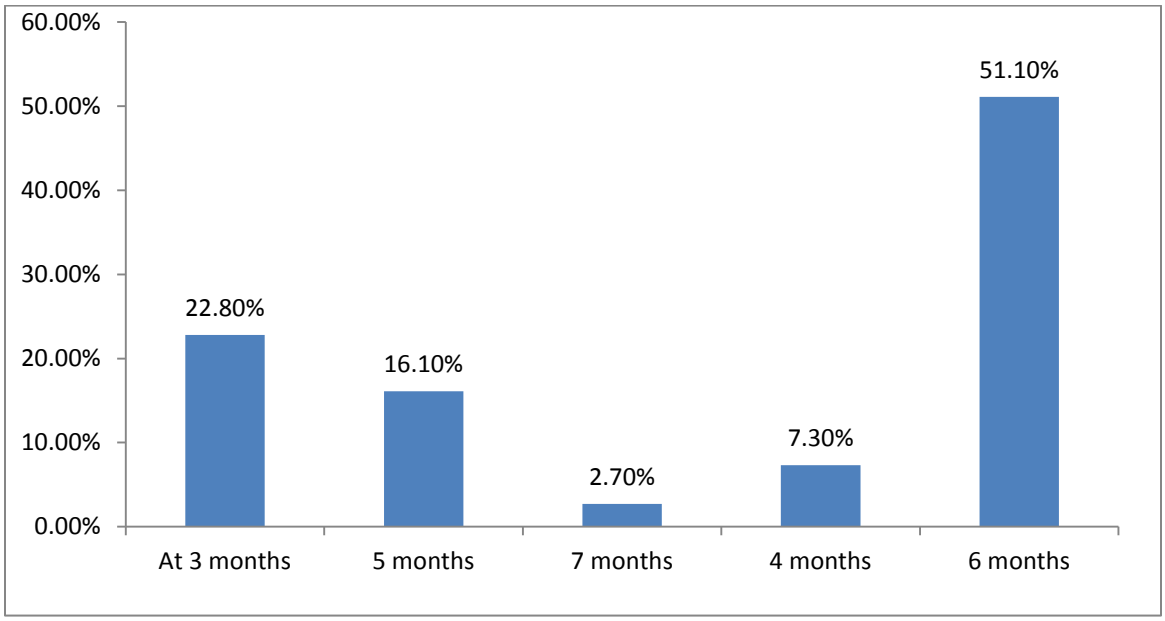

Figure 7: When complementary feeding was started

Discussions

The findings from the study titled the knowledge, attitude and practice of infant and young child feeding among mothers with child 0-24 months in Umuahia South L.G.A of Abia State showed that majority 336 (90.3%) of the mothers have heard about exclusive breastfeeding and 80.6% knew the meaning of exclusive breastfeeding. This was similar to a study in Osun State, Nigeria, in which 88.0% had heard of EBF and also in South Western Ethiopia where 93.6% of mothers had heard of EBF (Mbad a*et al.,* 2013; Tadele *et al.*, 2016). The proportions of women with good knowledge in this study (88.7% vs. 88%) were higher than found in Osun State, Nigeria and lower than in South Western Ethiopia (93.6%).

This implies that efforts made to create awareness to pregnant and nursing mothers and also the training and re-training of health workers by the State Ministry of Health in conjunction with UNICEF to build the capacity of the health workers, mothers, breastfeeding support groups and breastfeeding counsellors yielded great results.

Knowledge of Mothers with Child 0-24 Months on Infant and Young Child Feeding

From the result, 90.6% knows about infant and young child feeding, 90.3% knows the meaning of exclusive breastfeeding and 86.3% knows when to commerce complementary feeding. Meaning that there is a good knowledge of IYCF among mothers with child 0-24 months in Umuahia South L.G.A. but unfortunately, most mother did not know the consistency of infants

food which is semi solid only 80.6% got the correct answer while the remaining 19.4% either said solid or watery in consistency. This entails that health education of mothers and capacity building of health workers on the infant and young child feeding should be a routine and continuous programme in the state in other to further sensitize the mothers on the actual consistent of the baby food. This result in agreement with the study conducted in other place such as the survey conducted in Osun State where 88% had good knowledge of exclusive breastfeeding.

The observed increased in level of knowledge on infant and young child feeding could be attributed to the advices and family influence from experienced mothers on the practices of exclusive breastfeeding. If mothers were advised poorly it could lead to low knowledge of infant and young child feeding, that is, if the mothers were not experienced. According to Essien, Samson-Akpan, Ndebbio and John (2009), on a study carried out in Calabar, Nigeria on mothers' knowledge, attitudes, beliefs and practices concerning Exclusive Breast Feeding (EBF), reported that 80% were aware of exclusive breastfeeding and 74.3% knew that breast milk is only food for babies without water or other food or fluid within the first 6 months. Also, education has influence on the knowledge of mothers on exclusive breastfeeding because the result of this study showed high level of education from secondary to tertiary level. The higher proportions of mothers with at least secondary education had better knowledge of infant and young child feeding in the study areas as documented in some other

studies (Berihu et al, 2013; Banu & Khanom, 2012). This shows the importance of female education, which is a clearly identified strategy for children's survival and health (Banu & Khanom, 2012).

In reference to study carried out by Akeredolu et al (2014), in Lagos on mothers' nutritional knowledge, infant feeding practices and nutritional status of children (0-24 months) showed that the nutrition knowledge of the mothers were good. This could have been informed by their level of education. Education has an important effect on mothers' nutrition knowledge, attitudes and on dietary intake of children (Imdad, Yakoob & Bhutta, 2011).This study corroborated with UNICEF (2015) in Nigeria, stated that under 5 years of age, pregnant mother and the elderly and high mortality rates still persists among babies that are not exclusively breastfed Therefore, lack of knowledge, poor attitudes, negative beliefs and poor practices of infant and young child feeding might be disastrous to infants (Ene-obong, 2011).

Gabriele and Schettino, (2008), opined that child mortality remains high in low and middle-income countries. Successful breastfeeding is crucial to the curbing of infant malnutrition and achieving the millennium development goals four (reducing child mortality) and five (improving maternal health). Then, from the findings of this study, the level of knowledge of mothers showed that achievements of both goals are not far again from the desired progress (WHO, 2010).

Characteristics of the Index Child

The socio- Demographic Characteristics of the Index Child showed a good practice of Infant and Young Child Feeding in which the result was higher among 13-18 months followed by 0-12 months. This showed the exclusive breastfeeding was moderately practiced within 0-6 months and the general belief was that the breast milk was not sufficient for the babies. In the same vein, gender of the children of the nursing mothers were higher in males compared to females who were subjected to proper Infant and Young Child Feeding, despite the fact that there was no much remarkable variation in both sexes but the little variation may be due to the believe of people that male child preferred to excessive sucking on the breast milk than female infants (Ibe et al, 2017).

Attitude of Mothers with Child 0-24 Months of different Socio-Characteristics towards infant and young child feeding

The attitude of mothers towards infant and young child feeding were good because majority of the mothers strongly agreed, agreed that babies should be breastfed exclusively for the first 6 months, colostrum (the first milk) should not be thrown away and babies should be breastfed day and night and few of them disagreed to these attitudes. These ideas of the mothers who disagreed to that were not far from poor educational background of the mothers which directly contribute to lack of knowledge of mothers on infant and young child feeding.

According to Ibe et al (2017), in work titled cultural practices on infant feeding and nursing-mothers' adoption of exclusive breastfeeding practice in Imo State Nigeria, stated that breast milk should be the first fluid/feed given to the infant but some mothers do not give breast milk to new babies because of poor knowledge of the importance of breast milk to the baby's growth. There was no statistically significant difference in the overall attitude in relation to marital status and occupation toward infant and young child feeding in this study and it was similar to study findings in India among urban and rural mothers. (Olatona FA, Odeyemi, 2011). Most of the mothers in this study strongly agreed that breast milk alone was sufficient (64.2%) for the baby for the first 6 months, which was similar to the finding in a study carried out in Iraqi, in which 61.2% of mothers agreed that breast milk is sufficient for babies <6 months (Abdul Ameer, Al-Hadi& Abdulla, 2008). Just few (8.1%) of the mothers strongly disagreed that breastfeeding was old-fashioned, embarrassing and should not be done publicly. Adewuyi and Adefemi (2016) opined that the difference could possibly be as a result of the time interval between the studies and the declining popularity of EBF among Nigerian mothers.

Practice of Infant and Young Child Feeding among Mothers of different socio-Demographic with Child 0-24 months

The practice of infant and young child feeding was good but still need more health education because some of the mothers were not aware of normal practice of nutritional feeding. Majority of the mothers did not give baby

water after delivery and large number of mothers does give babies breast milk as the first food. The findings also indicated that slightly high number of mothers does feed babies 4 times or more from 6 months and above.

From the findings in this study most of the mothers understood that there is a need to wash hands before feeding a child which is the key moment to prevent germs from reaching food and feeding a child was done when the baby cries. The results showed that highest percentage reported that complementary feeding should start from 6 months. In a study carried out by Ibe et al (2017), stated that there is an indication of gap in the knowledge and practice of exclusive breastfeeding among mothers in this study, because their responses might be based on the information gotten from health workers within the study area. The knowledge of infant and young feeding was not a significant factor to influence the good practice infant and young feeding

According to WHO (2008), infant and young child feeding is a key area to improve child survival and promote healthy growth and development. The first 2 years of a child's life are particularly important, as optimal nutrition during this period lowers morbidity and mortality, reduces the risk of chronic disease, and fosters better overall development**.**

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion

From the findings, there is still poor knowledge on complimentary feeding, poor attitude as many still believe that colostrum should be thrown away and poor practice because many mothers still give water to a child less than 6 months of age.

Knowledge of exclusive breastfeeding was high; they showed good attitude and practices of infant and young child feeding which all were attributed to good effort of health workers in creation of awareness to the nursing mothers.

The major finding in the study was good knowledge of Exclusive Breast Feeding (EBF), Infant and Young Child Feeding (IYCF), though there were still poor knowledge on the consistency the baby's food and when to wean the child. Also among the 372 participants, non was found to breastfeed the child within the age of 18-24 months which means that they weaned the child earlier than recommended by WHO/UNICEF which is at 24months and this is detrimental to the growth and health of the infant which may also lead to infant mortality, and this calls for urgent and more attention.

5.3 Recommendations

Based on the findings of the study, the following recommendations were necessary such as;

1. There is need to review and evaluate the existing practice of infant and young child feeding among mothers with child 0-24 in other Local Government Areas in Abia State and beyond.
2. There is need to increase the knowledge and attitude of mothers in rural areas of the state through health information, education and communication and follow-up activities in the communities will be of great importance to sustain the effort of clinic.
3. There should be recruitment of more health workers in rural areas to educate mothers on the need for proper practice of infant and young child feeding.
4. There is need for further studies on the knowledge, attitude and practice of Infant and young child feeding in the L.G.A. and the state at large.

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APPENDIX 1

QUESTIONNAIRE

KNOWLEDGE, ATTITUDE AND PRACTICE (KAP) OF INFANT AND YOUNG CHILD FEEDING AMONG MOTHERS WITH CHILD 0-24 MONTHS IN UMUAHIA SOUTH L.G.A

Dear Respondent,

My name is Kalu Mary Okereke, a Postgraduate student of the Department of Public Health, Federal University of Technology, Owerri. I am conducting a study to determine the knowledge, attitude and practice of infant and young child feeding in Umuahia South L.G.A of Abia State.

The study requires administering of structured questionnaires to nursing mothers with child 0-24 months. We shall also check your baby's height, weight and nutritional status using the mid upper arm circumference measurement with an elastic tape to know if the child is growing well. You are required to answer the questions in the questionnaire as honest as possible.

The information given will be strictly confidential.

Thanks.

Yours faithfully,

Kalu Mary Okereke

Section A: Socio-Demographic Characteristics of Mothers with Child 0-24 Months

(1) Age in years:

(a) ☐ Below 20ears
(b) ☐ 21-30 years
(c) ☐ 31-40 Years
(d) ☐ 41- 50 years
(e) ☐ Above 50 years

(2) Marital status:

(a) ☐ Single
(b) ☐ Married
(c) ☐ Separated
(d) ☐ Divorced
(d) Others (specify) …….

(3) Highest Educational qualification:

(a) ☐ No formal education
(b) ☐ Primary level of education
(c) ☐ Secondary level of education
(d) ☐ Tertiary level of education

(4) Occupation:

(a) ☐ Unemployed/house wife
(b) ☐ Farming
(c) ☐ Civil/Public servant
(d) Trading ☐
(e) Artisan ☐
(f) Others ☐ (specify)

…….

(5) Parity (Number of child births):

(a) ☐ 1-2
(b) ☐ 3-4
(c) ☐ 5-6
(d) ☐ Above 6

SECTION B: DEMOGRAPHIC CHARACTERISTICS OF THE INDEX CHILD

6. Age:

(a) 0-6months (b) 7-12 months

(c) 13-18 months (d) 19-24 months

1. Sex:

(a) Male ☐

(b) Female ☐

2. Birth order:

(a) ☐ 1st (b) ☐ 2nd

(c) ☐ 3rd (d) ☐ 4th

(e) ☐ 5th (f) ☐ 6th

(g) Others (specify).....

3. Place of Birth:

(a) ☐ TBA's place (e) ☐ Private maternity home

(b) ☐ Government Health Centre (f) ☐ Private hospital

(c) ☐ Government hospital (g) ☐ Mission Health Centre

(d) ☐ Others (specify) .....

SECTION C: KNOWLEDGE OF MOTHERS WITH CHILD 0-24 MONTHS ON INFANT AND YOUNG CHILD FEEDING IN UMUAHIA SOUTH L.G.A. OF ABIA STATE.

4. Have you heard about exclusive breastfeeding?

   (a) ☐ Yes

   (b) ☐ No

5. What does Exclusive Breastfeeding mean?

   (a) ☐ Feeding the baby with mothers breast milk only without water or other food or fluid within the first 6 months

   (b) ☐ Feeding the baby with water

   (c) ☐ Feeding the baby with infant formula

   (d) ☐ Feeding the baby with other family foods

6. How long after birth should a baby be put to breast

a. ☐ Immediately/within in the 1st hour

b. ☐ Within the 1st day (1-23 hours)

c. ☐ More than 24 hours

d. ☐ When the baby is ready

e. ☐ When the mother is ready

f. ☐ Others (specify) .....

7. What is the first liquid a new born baby should receive

a. ☐ Breast milk (c) ☐ Plain water

b. ☐ Glucose water ☐ (d) Infant formula

8. What should be done with the first yellow breast milk (colostrums)?

(a) ☐ Should be given to the baby

(b) ☐ Should be squeezed and thrown away (c) ☐ Should be allowed to dry off

(d) ☐ Nothing

(d) Others (Specify) .....

9. When should a baby stop breastfeeding (weaning)

(a) ☐ 1-6 months (d) ☐ 7-12 months

(b) ☐ 13-18 months (e) ☐ 19-24 months

(c) ☐ 24 months and above (f) ☐ others ☐ (specify) .....

10. At what age should a baby start eating food in addition to breast milk?

(a) ☐ 3 Months (b) ☐ 6 Months

(c) ☐ 9 Months (d) ☐ 12 Months

(e) Others (specify) .....

11. Is it good for a baby to be breast fed exclusively for 6 months?

(a) ☐ Very good (c) ☐ Okay

(b) ☐ Not good (d) ☐ Don't know

12. How long after birth should a baby be put to breast

g. ☐ Immediately/within in the 1st hour

h. ☐ Within the 1st day (1-23 hours)

i. ☐ More than 24 hours

j. ☐ When the baby is ready

k. ☐ When the mother is ready

l. Others (specify) ……

13. What is the first liquid a new born baby should receive

c. ☐ Breast milk (c) ☐ Plain water

d. ☐ Glucose water (d) ☐ Infant formula

14. Should colostrums be thrown away?

(a) ☐ Should be given to the baby

(b) ☐ Should be squeezed and thrown away (c) ☐ Should be allowed to dry off

(d) ☐ Nothing

(d) ☐ Others (Specify) ……

15. At what age should a baby be introduced to complementary feeding?

a) ☐ 3 Months (b) ☐ 6 Months

(c) ☐ 9 Months (d) ☐ 12 Months

(e) ☐ Others (specify) ……

16. ☐ Is it good for a baby to be breast fed exclusively for 6 months?

(c) ☐ Very good (c) ☐ Okay

(d) ☐ Not good (d) ☐ Don't know

16. ☐ At what age should a bay be weaned?

(a) ☐ 1-6 months (d) ☐ 7-12 months

(b) ☐ 13-18 months (e) ☐ 19-24 months

(c) ☐ 24 months and above (f) ☐ others (specify) ……

☐

17. What is the benefit of exclusive breastfeeding?

(e) ☐ Very good (c) ☐ Okay

(f) ☐ Not good (d) ☐ Don't know

18. What should the consistency of the baby's food be at 6-9 months?

(a) ☐ Watery

(b) ☐ Semi solid

(c) ☐ Solid

19. What should the consistency of the baby's food be at 9-12 months?

(a) ☐ Watery

(b) ☐ Semi solid

(c) ☐ Solid

20. What should the consistency of the baby's food be at 9-12 months?

(a) ☐ Watery

(b) ☐ Semi solid

(c) ☐ Solid

SECTION C: ATTITUDE OF MOTHERS WITH CHILD 0-24 MONTHS OF DIFFERENT SOCIO DEMOGRAPHIC CHARACTERISTICS TOWARDS INFANT AND YOUNG CHILD FEEDING

Note: SD – Strongly Agree, D – Disagree, A- Agree, SA- Strongly Agree

S/N		SA	A	D	SD
21	Babies should be breastfed exclusively for the first 6 months				
22	Colostrum (the first milk) should not be thrown away				
23	There are no difficulties in breastfeeding babies exclusively				
24	Babies should be breastfed day and night				
25	Mothers should fill free to breastfed their babies in public places				
26	Babies should be introduced to family foods at 6 months				
27	The consistency of baby's food should be semi solid				
28	Baby's health is important if the label's preparation instruction is followed				
29	After feeding a baby with infant formula, the remnant should be thrown away				

SECTION D: PRACTICE OF INFANT AND YOUNG CHILD FEEDING AMONG MOTHERS OF DIFFERENT SOCIO DEMOGRAPHIC WITH CHILD 0-24 MONTHS

30. Was your baby put skin to skin with you after delivery?

(a) ☐ Yes

(b) ☐ No

31. How long after delivery was your baby put to breast?

(a) ☐ Within 30 minutes (d) ☐ Within the first hour

(b) ☐ Within the first day (e) ☐ After 24 hours

(c) ☐ After 72 hours (f) ☐ Others Specify.....

32. Did you give your baby water after delivery?

(a) ☐ Yes

(b) ☐ No

33. What was the first food you gave to the baby?

(a) ☐ Breast milk (b) ☐ Plain water

(c) ☐ Glucose water (d) ☐ Infant formula

(e) ☐ Family food

34. Do you sleep with your baby (rooming in)?

(a) ☐ Yes

(b) ☐ No

35. When do you feed your baby

(a) ☐ Feeding the baby on demand (d) ☐ Feeding when the baby cries

(b) ☐ Feeding the baby using a schedule (e) ☐ After every 3 to 4 hours

(c) ☐ After 4 to 6 hours (f) ☐ Others specify……

36. When did you add other family foods to your baby including breast milk?

(a) ☐ At 3 months (d) ☐ 4 months

(b) ☐ 5 months (e) ☐ 6 months

(c) ☐ 7 months (f) ☐ Others specify ……

37. How many times do you feed your baby in a day from 6 months old in addition to breast milk?

(a) ☐ 0 (b) ☐ 1 time

(c) ☐ 2 Times (d) ☐ 3 times

(e) ☐ 4 or more (f) ☐ 8 or more times

(g) ☐ Others specify……

38. What are the key moments when you need to wash your hands to prevent germs from reaching food

(a) ☐ Before feeding the child and after changing the baby's nappy

(b) ☐ When the child wants to play

(c) ☐ After dressing the child

(d) When the child is sleeping

APPENDIX II

MARKING SCHEME FOR THE QUESTIONS IN THE QUESTIONNAIRE

SECTION C

11. What does EBF mean

Ans. Feeding the infant with mothers breastmilk only without any other foods or fluid in exception of drugs and syrups for the first six months of life.

12.How long after birth should a baby be put to breast

Ans- Immediately within the first hour of life

13. What is the first liquid a new born baby should receive

Ans. Breastmilk

14. Should colostrum be thrown away?

Ans. No it should be given to the baby?

15. At what age should the baby be introduced to complimentary feeding

Ans. At 6 months

16. At what age should a baby be weaned?

Ans. 24 months and above

17. What is the benefits of EBS

Ans. Makes the child to grow healthier

18. What should the consistency of the baby's food be at 6-9 months?

Ans. Semi solid

19. What should the consistency of the baby's food be at 9-12 months?

Ans. Semi solid

20. What should the consistency of the baby's food be at 12-24 months?

Ans. Semi solid

SECTION D

For the attitude questions, the answers are coded thus SA= 4, A =3, D – 2 and A= 1, the positive answer is 4 which is strongly agree while the negative response is disagree and strongly disagree.

SECTION E

30. Was your baby put skin to skin with you after delivery?

Ans. Yes

31. How long after delivery was your baby put to breast?

Ans. Within the first hour

32. Did you give your baby water after delivery?

Ans. No

33. What was the first food you gave to the baby?

Ans. Breast milk

34. Do you sleep with your baby (rooming in)?

Ans. Yes

35. When do you feed your baby

Ans. Feeding the baby on demand

36. When did you add other family foods to your baby including breast milk?

Ans. 6 months

37. How many times do you feed your baby in a day from 6 months old in addition to breast milk?

Ans. 8 or more times

39. What are the key moments when you need to wash your hands to prevent germs from reaching food

Ans. Before feeding the child and after changing the baby's nappy

APPENDIX III

Operational Definition of Terms

Breastfeeding: Is the process of feeding the new born with milk from human breast.

Exclusive breastfeeding: Exclusive breastfeeding is the practice of feeding an infant with breast milk (including expressed breast milk) only, without any food or drink, nor even water except drops or syrups consisting of vitamins, minerals' supplement or medicines when medically prescribed.

Complimentary feeding: Is defined as the process of starting semi solid and solid food (family foods) when breast milk alone is no longer sufficient to meet the nutritional requirements of infants and therefore other foods and liquids are needed along with breast milk.

Infant: Is typically applied to young children between one month and one year of age; however definitions may vary and may include children up to two years of age.

Young Child: A young child is a child aged 12months to 24 months.

Malnutrition: Refers to deficiencies or imbalance in a person's intake of energy and/ or nutrients**.**

Knowledge: Is the awareness or familiarity gained by experience of a fact or situation.

Attitude: Is defined as a settled way of thinking or feeling about something.

Practice: Refers to the customary, habitual or expected procedure or way of doing something.

Cronbach's coefficient alpha: Cronbach's coefficient alpha is used primarily as a means of describing the reliability of multi item scales. With the formula $\alpha = \frac{n}{n-1}\left(\sigma_{X2} - \sum_{i=1}^{n}\sigma_{i2}\right)/\sigma_{X2}$ where n is the number of items, σX2 is the total test score variance, and σi2 is the item variance.