

COMPARATIVE STUDY ON HEALTH IMPLICATION OF MOTHER PREFERENCE TO EXCLUSIVE BREASTFEEDING AND MIXED FEEDING AMONG NEWBORNS IN ISOBOR

Bright Ewona*, Vivian Takim, Grace Offiong and Okon Etim

Dept. of General Studies College of Health Technology, Calabar, Cross River State, Nigeria. West Africa.

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*Corresponding author: Bright Ewona

Dept. of General Studies College of Health Technology, Calabar, Cross River State, Nigeria. West Africa.

Email ID:

ABSTRACT

The process of nursing babies or young children with milk from their mother's breast is well known practice as recommended by health professionals for babies from the first hour of their life on earth until as much as they would need it. Breast milk contains vital nutrients and natural antibiotics that are needed for a child's well-being, growth and development. Even if many mothers adopt this practice, a lot of them, especially the rural dwellers are still not fully aware of the best method of breastfeeding for their babies. In this study the researcher compared the health implication of mother preference to exclusive breastfeeding and mixed feeding among newborns in Isobor. Three research questions were formulated to guide the study. Descriptive survey design was adopted. Structured questionnaire was used to gather Data from 120 respondents who were basically nursing mothers from sample communities. Simple random technique was employed to select the sample for the study. The instrument was validated to ensure that items in the questionnaire represent the subject of interest and was accurate. The test-retest method of reliability was used in ensuring reliability of instrument. Simple percentage was used to analyze data obtained. From the study, children who were exclusively breastfed displayed sound physical and mental attitudes, good skin texture, brilliant dispositions and strong disease resistance ability at significant levels compared to those nurtured by mixed feeding. These are some of the reasons why most mothers adopt exclusive breastfeeding method. From the findings it was recommended that nursing mothers should prefer exclusive breastfeeding under normal conditions.

KEYWORDS: Mother preference, Exclusive Breastfeeding, Mixed breastfeeding, Health, Newborns.

INTRODUCTION

The process of breastfeeding babies with substituted milk is traced back to the ancient times with use of terracotta pots in the Roman era and Renaissance times, to the use of pap boat in the 16th century. The use of bottle to feed babies (bottle feeding), emanated in the 20th century during the period of industrial revolution (she knows, 2019). Breastfeeding refers to the feeding of an infant or a young child with breast milk directly from female breast rather than using infant formula. Babies suck and swallow breast milk through a suckling reflex that is established between the mother's nipple and brain when the baby sucks (Ewona et al., 2019).

The World Health Organization (WHO) defined breastfeeding as unequalled way of providing an ideal food for the healthy growth and development of infants. It is an integral part of the reproductive process which is also significant to the health of mothers WHO, 2001.

Breastfeeding brings a lot of health benefits to both mother and child. It's more convenient to practice and helps to create beautiful bonding between mother and baby (Awatef, 2010). It also better a child's appetite, enhance digestion and helps in the development of jaw bone in the baby. It also helps to improve a child's cognitive ability and builds a strong immunity for the child. And, it is very cheap and reliable means of feeding a baby. In 2015 it was estimated that optimal breast feeding practices would save US \$ 3.38 million in health system expenditure a year, while families will save up to 32.5% of their monthly earnings by not having to purchase formula (frontier, 2015).

The United Nations Children's Fund (UNICEF), 2016 said that if all babies in Myanmar were breastfed in their first six months, it would save the lives of more than 1,600 infants a year and help to reduce the death rate of children aged under five. Breast milk is uniquely

superior for infants and it's the normal food for infants from birth American Academy of Pediatrics (AAP), 2009. Breast milk contains all the essential nutrients, antibiotics and other factors important for growth and development. It cannot be replicated or substituted by any other feeding methods. It is the most convenient way of feeding infants. AAP, 2009 also noted three different types of breast milk depending on the stage of lactation. The thick, sticky and yellowish colostrum produced during the first seven days after birth. It contains a higher amount of protein, less fat and a number of immunizing factors for the newborn. After seven days lactation is fully established and production of the transition breast milk commences in the breast tissues from day 8 to 20. From day 20 onward the production of mature breast milk begins. The mature breast milk also provides immune factors and other important non-nutritional components to the infant.

Nutritional and Non-Nutritional Constituents of Breastmilk

Free water

Proteins: Two major types of proteins are contained in breast milk; whey (about 60%) and casein (about 40%) (Biancuzzo M., 1999). American pregnancy association, 2019 say that a balance in their right proportion of these proteins is needed for easy and quick digestion in babies and also for a strong immune system, while milk from other sources would slow digestion in babies. Other proteins present in breast milk are lactoferrin (inhibit the growth of iron-dependent bacteria in the gut example, coliforms and yeast), secretory IgA, IgG and IgM (protect the baby against infectious diseases like viruses and bacteria), lysozyme (protects the child from E. coli and salmonella. Also promote growth of healthy intestinal flora and prevent inflammation), Bifidus factor (supports the growth of lactobacillus, a beneficial bacterium that helps to protect the baby against harmful

bacteria by creating acidic environment to hinder their survival.

Carbohydrates, Fats and Vitamines: Lactose is the major carbohydrate present in breast milk. It accounts for about 40% of total calories content in breast milk. Lactose inhibits the activities of a large number of harmful bacteria in the stomach, improves the action of calcium, phosphorus and magnesium, fights diseases and promotes growth of healthy bacteria in the stomach of infants (Biancuzzo M., 1999). The long chain fatty acids are the primary source of calorie in breast milk. They function in brain and retina development of the baby and also help the baby to absorb fat-soluble vitamins (A, D, E, K). The common vitamins in breast milk include the fat-soluble (A, D, E, K) and water soluble vitamins (vitamin C, riboflavin, niacin and pantothenic acid). They support healthy growth and functions of organs and help to build up baby's teeth and bones.

Enzymes, Hormones, Immunoglobulins and Growth Factors:

There are over forty digestive enzymes in breast milk that aid in baby's digestion, absorption of iron and enhancement of infant's immune system (American academy of pediatrics, 2009). The hormonal content of breast milk acts as chemical messengers sending information between baby's organs and tissues and regulating baby's appetites and sleep pattern. It also increase bonding between mother and child (American academy of pediatrics, 2009). The Secretary IgA is predominant immunoglobulin in breast milk. Other components are leukocytes, oligosaccharides, lysozymes, lactoferrin, adiponectin, interferon-g, epidermal growth factor (EGF), insulin-like growth factor (IGF)-1, transforming growth factor-b (TGF-b) 1 and 2, and interleukin-10 (IL-10). National Health and Medical Research Council (NHMRC), 2003.

Nutrients	Human milk	Cow milk(3.25%fat)	Goat's milk
Calories(kcal)	172	146	168
Water(g)	215	215	212
Protein(g)	2.5	7.9	8.7
Fats (g)	10.8	7.9	10.1
Saturated fat(g)	4.9	4.6	6.5
Monounsaturated fat(g)	4.1	2.0	2.7
Polyunsaturated fat(g)	1.2	0.5	0.4
Omega-3fatty acid(Mg)	128	183	97.6
Omega-6fatty acid(Mg)	920	293	266
Cholesterol(Mg)	34.4	24.4	26.8
Carbohydrate(g)	17.0	11.0	10.9
Sugars(g)	17.0	11.0	10.9
Vitamin A(IU)	522	249	483
Vitamin C(mg)	12.3	0	3.2
Vitamin D (IU)	9.8	97.6	29.3
Vitamin E (mg)	0.2	0.1	0.2
Vitamin K (mcg)	0.7	0.5	0.7
Thiamin (mg)	0.0	0.1	0.1
Riboflavin (mg)	0.1	0.4	0.3

Niacin (mg)	0.4	0.3	0.7
Vitamin B6 (mg)	0.0	0.1	0.1
Folate (mcg)	12	12	2
Vitamin B12 (mcg)	0.1	1.1	0.2
Pantothenic acid (mg)	0.5	0.9	0.8
Choline (mg)	39.4	39.4	39.0
Calcium (mg)	79	276	327
Iron (mg)	0.07	0.07	0.12
Magnesium (mg)	7.4	24.4	34.2
Phosphorus (mg)	34.4	222	271
Potassium (mg)	125	349	498
sodium (mg)	42	98	122
Zinc (mg)	0.4	1.0	0.7
Copper (mg)	0.1	0.0	0.0
Manganese (mg)	0.1	0.0	0.0
Selenium (mcg)	4.4	9.0	3.4

Source: www.wikipedia.org

Exclusive breastfeeding refers to a situation where an infant receives no other food or drink besides breast milk for the first six months of life (Olusegun, 2006). It is the consumption of human milk with no supplementation of any type (no water, no juice, no nonhuman milk and no food). Exclusively breastfed babies have less chance of developing diabetes mellitus type 1 than those with shorter duration of breastfeeding and early exposure to cow milk and solid foods. Exclusive breastfeeding also appears to protect against diabetes mellitus type 2, at least in part due to its effect on the child's weight (Mayer-Davis, 2008)

It can also be defined as the use of no other food or drink, not even water, for 6 months of life, but allows the infant to receive ORS, drops and syrups (vitamins, mineral and medicines), WHO, 2019. WHO recommends that infant be exclusively breastfed for the first 6 months of life to achieve optimal growth, development and good health, thereafter, to meet their evolving nutritional requirements infants should receive nutritionally adequate and safe complementary foods while breast feeding continues for up to two years of age or beyond. Exclusive breastfeeding reduces infant mortality rate that stems from illnesses such as diarrhea or pneumonia, and enables quick recovery from sicknesses (Kramer, 2001).

Ewonaet. al, 2019 in Greer, 2008 upheld that children who are at risk of developing allergic diseases like atopic syndrome can be prevented or delayed through exclusive breastfeeding for atleastfour Months, these benefits may not be present after four Months of age. However, the key factor may be the age at which non-breast milk is introduced rather than duration of breastfeeding. Atopic dermatitis, the most common form of eczema, can be reduced through exclusive breastfeeding beyond 12 weeks of individuals with a family autopsy, but when breastfeeding beyond 12 Weeks is combined with other foods, incidents of eczema arises irrespective of family history.

Some economic benefits of breastfeeding include reduction in the cost of health care and provision of income security, increased bonding between mother and child, high social character due to low incidence of child illness and reductionof parental absence to work AAP, 2009. As the saying goes, "health is wealth", it therefore follows that when the infant health is intact, then the parents would not have to spend or lose income.

Mixed feeding is the process of combining breast feeding with bottle feeding or other complements to feed infants (*Healthtalkonline.org*).The act of alternating between breast feeding and formula feeding for infants within six Months of age is gradually becoming a trend among mothers who believe it's the only way they can keep their babies away from too much engagement with the breast to prevent it from debilitating.

According to *healthtalkonline.org*,some of the reasons mothers introduce formula feeding could be due to initial difficulties the baby have in getting breast feeding established, mothers wanting to return to work, to reduce theirchances of having their breast become uncomfortably engorged and leaky,and to reduce the risk of developing mastitis. However, it is important to note that when mothers introduceother feeds alongside breast milk they might be sending signalsfor reduction in the quantity of breast milk to be produced. This might gradually knock off a child's appetite for more breast milk. *Healthtalkonline.Com*recommends that breastfeeding be fully established before introducing bottle feeding. WHO, 2000 and APA, 2003 strongly recommend exclusive breast feeding for a period of 6 months, after which formula can be introduce while breast feeding continues for about two years. WHO also insisted that formula may contain bacteria that can cause serious illnesses in infants.

Beside interference with natural nutritional composition of breast milk, many researchers have recorded noticeable disadvantages with mixed feeding which

could also decide mother preference level of this method over others. According to Renee, 2019 mixed feeding can cause a mother to suffer from inflammatory breast condition such as engorgement, block duct or mastitis, which might interfere with successful breast feeding. Renee also continued that mixed feeding can also increase the risk of breast refusal and increase preference for bottle. Some parents also feel that mixed feeding could be time consuming.

On the contrary, there is still a divide between the preference of mothers for both exclusive breast feeding and mixed feeding. Zarchi, a nursing mother and a working class lady says she is spending K200, 000 a month on formula and others formulated supplementary food for her daughter. This is more than half of her monthly income but she can afford the cost because her husband earns twice her salary. To zarchi her job is the cause of her giving formula even if she is aware that breast milk is best for her daughter. Zarchi suggested that the only way to improve the breastfeeding culture is by promoting the positive aspect of breastfeeding and giving nursing mothers the support they need to feed their babies. And that we all need to prevent nursing mother from becoming victims of unethical law-breaking baby formula companies. *Healthtalkonline.com*

Most mothers who go after formula feeding for their babies insisted that their babies worries at night reduces significantly when breastfeeding is supported by formulated supplement. In 2012, researchers from the medical research council epidemiology unit in Cambridge studied 300 babies who were 3 months of age. In the end of the study, they found that formula fed babies cried less and were easier to put to sleep than those who were breast feed throughout the night. *www.babygaga.com*. This might also contribute to why some nursing mothers buy the idea of mix feeding their babies barely after a few weeks or Months while others totally refused breastfeeding. According to recent breastfeeding statistics from national center for biotechnology information 2019, 35% of women chose not to breastfeed at all, 05% discontinue breastfeeding within 1 week, 18% stop breastfeeding within 1 Month and 42% continue breastfeeding for more than a Month. The LLLI's center for breastfeeding information 2019 say that breast milk helps infants digestion, enhance infants IQ, supports baby's growth and development, protects mother's health and reduce cancer risk, helps bonding and development, provide a balance diet for infants and lower the risk of SIDS (sudden infant death syndrome).

A survey conducted in 2016 by the then ministry of national planning and development and ministry of health and sport found that 51.2% of infant age less than 6 months were fed on breast milk in Myanmar. This means that only about 1 out of every 2 children age under 6 months in Myanmar is gaining the health and nutritional advantages of been breast fed. Although the

WHO supports and recommends exclusive breast feeding for atleast 6 months of age, *Everydayfamily* sees formula feeding to be good as breastfeeding and even better in certain circumstances. According to every day family, they have been more improvement on formula feeding as the system has become safer, pointing out that it provides infants with all the nutrients present in breast milk. *Everydayfamily* insisted that formula bottles are now free from harmful chemicals used by manufacturers and that formula feeding helps the child to gain weight.

The movement "fed is best" also placed breastfeeding and formula feeding at equal bar as long as the baby nutritional requirements are met. This movement according to *Everydayfamily* has increased mother awareness and preference for formula feeding. Everyday family also stated that many mothers give formula to their babies for personal reasons and should not allow the society judge them without knowing their family situations. *Everydayfamily* rather suggested that they should be consistency in mixed feeding of babies as any discontinuation or break in formula introduced would cause more hunger upon the baby. *BoobGeek* condemned the habit of giving homemade formula to babies. According to *BoobGeek* using homemade formula can be unsafe for the baby especially if they are under 6 months of age, some homemade recipes contain raw milk, which isn't recommended for babies. Also the amount of nutrients in homemade products can't be regulated. Besides, homemade products are usually more expensive and time consuming.

METHODOLOGY

The researcher adopted descriptive survey design for the study. Descriptive survey design was used because it clearly explains the present situation as it concerns mother preference to exclusive breastfeeding and mix feeding on the benefits of newborns in Isobo. This study was conducted in Isobo community, a tropical rain forest zone in Obubra Local Government Area of Cross River State, Nigeria, West Africa. The area of study is made of five villages- Ndeonulus, Ndeohorikpa, Ndeotuma, Ndeonkash, and Ndemgbogid. The researcher preferred this area of study because the people there have little or no knowledge of the best feeding method to adopt on their child. The researcher wanted to device a means of educating the people properly on the subject matter.

The population of the study was made of 600 nursing mothers and newborns from three villages in Isobor. 40 newborns were selected from each of the three units to arrive at a sample size of 120 newborns. Three research questions were formulated for the study. Closed ended (Structured) questionnaire was the instruments used to collect Data from the 120 respondents comprising of nursing mothers. Simple random technique was used to select the sample for the study. The instrument was validated to ensure that the items in the questionnaire and score card represented the subject of interest and were accurate. The test-retest method of reliability was used in

ensuring reliability of instrument. Simple percentage was used to analyze data obtained. The findings revealed that most nursing mothers prefer exclusive breastfeeding over mixed feeding may be due its rich nutritional value and significant health impact on newborns of Isobo community.

RESULTS

The result of the data analysis carried out on data collection on demographic information was done using

frequencies and percentages. The analyzed demographic variables are presented in tables 1-5.

Table 1: Total unit to be sampled.

Random number	Number of units
01	Ndeonulus Village Isobo
02	Ndeohorikpa Village, Isobo
03	Ndeotuma Village, Isobo
04	Ndeonkash Village, Isobo
05	Ndemgbogid Village

Table 2: Actual Sampling of Units Using Simple Random Sampling Technique.

Random number	Name of villages	Selected units
01	Ndeonulus Village Isobo	X
02	Ndeohorikpa Village, Isobo	
03	Ndeotuma Village, Isobo	X
04	Ndeonkash Village, Isobo	
05	Ndemgbogid Village	X

Table 3: Showing only selected communities.

Random number	Selected communities
01	Ndeonulus Village
02	Ndeotuma Village, Isobo
03	Ndemgbogid Village

Table 4: Population of only the selected villages.

Random number	Selected communities	Population of responses
01	Ndeonulus Village	200 newborns
02	Ndeotuma Village	200 newborns
03	Ndemgbogid Village	200 newborns
	Total	600 newborns

Table 5: Sample size for the study.

Random number	Selected communities	Population of responses
01	Ndeonulus Village	40 newborns
02	Ndeotuma Village	40 newborns
03	Ndemgbogid Village	40 newborns
	Total	120 newborns

Table 1 Shows all the five different villages that make up Isobo community being the area of study. They are Ndeonulus, Ndeohorikpa, Ndeotuma, Ndeonkash, and Ndemgbogid.

Table 2 shows actual sampling of units using simple random sampling technique. Three villages were selected out of the community. The respondents were therefore selected from the three sampled villages

Table 3 shows only the three selected villages from the five villages that make up Isobo community. They are Ndeonulus, Ndeotuma and Ndemgbogid.

Table 4 shows the population of only the selected villages. There are 200 newborns in each of the selected

villages, making a total of 600 newborns in the three sampled units.

Table 5 shows the sampling percentage used in selecting sample since the total population of newborns (population of study) being six hundred is large, 20% was used to select sample.

Using 20% sample, the researcher determines the sample size for the study to be one hundred and twenty newborns approximately.

$$\text{i.e. } \left(\frac{20\% \times 600}{100} \right) = 120 \text{ newborns and their mothers}$$

Research question 1

To what extent does exclusive breastfeeding and mixed feeding impact physically and mentally on the new born by sex?.

Table 6: Percentage analyses of physical and mental impact of exclusive breast feeding and mixed feeding babies on newborns by sex.

Questionnaire Item On Unit 1	TRUE			FALSE		
	Male	Female	Total	Male	Female	Total
Item 1	32(27%)	39(33%)	71(59%)	28(23%)	21(18%)	49(41%)
Item 2	47(39%)	35(29%)	82(68%)	20(17%)	18(15%)	38(32%)
Item 3	33(28%)	35(29%)	68(57%)	32(27%)	20(17%)	52(43%)
Total			221			139
Mean			$\frac{\sum x = 221}{n = 3}$			$\frac{\sum x = 139}{n = 3}$
Scores			= 74			=46

Table 6: addressed research question one; To what extent does exclusive breastfeeding and mixed feeding impact physically and mentally on the new born by sex?.

The table particularly looked at unit one (1) of the questionnaire and showed responses on the physical and mental benefits of exclusive breastfeeding over mixed feeding by sex.

For “item 1” children who received exclusive breastfeeding exhibit sound mental alertness over others who are mixed fed. A total of 71 respondents answered TRUE (32 males being 27%, 39 females being 33%). And a total of 49 respondents answered FALSE (28 males being 23%, 21 females being 18%)

For “item 2” which said babies who received mixed feeding might show poor growth and developmental pattern compared to their exclusively breastfed counterparts. A total of 82 respondents answered TRUE (47 males being 39% and 35 females being 29%) while a total of 38 said FALSE (20 males being 17% and 18 sales being 15%).

For “item 3” children who are exclusively breastfed show good dentition and skin texture than those who received other diets. A total of 68 respondents said TRUE (33 males being 28% and 35 females being 29%) while the total of 52 respondents answered FALSE (32 males being 27% and 20 females being 17%).

The total number of respondents who said TRUE was 221 while those who said FALSE were 139. This value is significant at $p < 0.005$ level of significance. Since the total number of respondents who said TRUE is 221 with a mean score of 74 was higher than the 139 respondents who said NO with a mean score of 46, it was agreed and concluded that children who received exclusive breastfeeding for a period of six Months show good physical and mental quality than others who took mixed feeding within same duration.

Research Question 2: does mixed feeding improve the social well-being of children in Isobo?.

Table 7: Shows the social impact of mixed feeding of children in Isobo by age Responses.

Questionnaire item on, unit 1	YES				NO			
	0-6m	7-18m	19-above	Total	0-6m	7-18m	19-above	Total
Item 1	35(29%)	30(25%)	15(13%)	80(67%)	17(14%)	8(7%)	15(13%)	40(33%)
Item 2	30(25%)	28(23%)	32(27%)	90(75%)	10(8%)	12(10%)	8(7%)	30(25%)
Item 3	19(16%)	27(23%)	22(18%)	68(57%)	12(10%)	30(25%)	20(17%)	52(43%)
Total				238				122
Mean				$\frac{\sum x = 238}{n = 3}$				$\frac{\sum x = 122}{n = 3}$
Scores				= 79				= 41

Table 7 addressed research question 2; does mixed feeding improve the social well-being of children in Isobo?.

Unit Two of the questionnaire showed responses on the impact of mixed feeding on social well-being of children by age.

For “item 1” which says exclusive babies might not be friendlier than mix fed babies. A total of 80 respondents answered YES (35, 0 – 6ms being 29%, 30, 7 – 18 months being 25% and 15, 19 –above months being 13%) while a total of 40 respondents answered NO (17, 0 – 6 months being 14%, 8, 7-18 months being 7% and 15, 19 – above months being 13%).

For “items 2” which said mixed breastfeeding might make a baby relate freely with people. A total of 90 respondents answered YES (30, 0-6 Months being 25%, 28, 7-18 Months being 23% and 32, 19-above being 27% A total of 30 respondents answered NO (12, 0-6 Months being 8% 12, 7-18 Months being 10% and 8, 19 – above Months being 7%).

For “item 3” which says exclusive breastfeeding makes a child more restless than mixed feeding. A total of 68

respondents answered YES (19, 0-6months being 16%, 27, 7-18 Months being 23% and 22, 19-above months being 18%) while a total of 52 respondents answered NO (12, 0-6 months being 10%, 30, 7-18 months being 25% and 20, 19-above months being 17).

The total numbers of correspondents who said YES were 238 while those who said NO were 122. Since the total number of nursing mothers who said YES being 238 with a mean score of 79 was higher than the 122 respondents who said NO with a mean score of 41, it was agreed and concluded that mixed feeding improves the social health of newborns in Isobor by age.

Research Question 3

Does exclusive breastfeeding and mixed feeding improve the health of new born by immunization status in Isobo?

Table 8: Exclusive breastfeeding/ mixed feeding and Health of newborns by their immunization status Responses.

Questionnaire item on, unit 1	YES				NO			
	RBCG	Ob's' Imm	Y comm. Imm	Total	RBCG	Ob's' Imm	Y comm. Imm	Total
Item 1	35(29%)	40(33%)	20(17%)	95(79%)	12(10%)	8(7%)	5(4%)	25(21%)
Item 2	35(29%)	50(42%)	15(13%)	100(83%)	6(5%)	6(5%)	8(7%)	20(17%)
Item 3	27(23%)	30(25%)	20(17%)	77(64%)	13(11%)	15(13%)	15(13%)	43(36%)
Total				272				88
Mean				$\frac{\sum x = 272}{n = 3}$				$\frac{\sum x = 88}{n = 3}$
Scores				= 91				= 29

Table 8 above addressed research question three; does exclusive breastfeeding and mixed feeding improve the health of new born by immunization status in Isobo? Unit 3 of the questionnaire showed responses on health impact of exclusive breastfeeding and mixed feeding on newborns by immunization status.

For item 1, which said exclusive breastfeeding enhances the child's immunization status, a total of 95 respondents answered YES (35, RBCG being 29%, 40, ob's' imm being 33% and 20, Y com imm being 17%) while a total of 25 respondents answered NO (12, RBCG being 10%, 8 Ob 's' imm being 7% and 5, Y com imm being 4%).

For 'item 2' which said exclusive helps in family planning? A total of 100 respondents answered yes (35, RBCG being 29%, 50, Ob 's' imm being 42% and 15%, Y comm. Imm being 13%) while 20 respondents answered no (6, R BCG being 5%, 6, Ob 's' imm being 5% and 8, Y com imm being 7%).

For 'item 3' which said exclusive breastfeeding boost immunity? A total of 77 respondents answered yes (27, RBCG being 23%, 30, ob 's' imm being 25% and 20, Y comm. Imm being 17%) while a total of 43 respondents

answered No (13, RBCG being 11%, 15, ob 's' imm being 13% and 15, Y com imm being 13%).

The total number of people who said YES were 272 while those who said No were 88, since the total numbers of nursing mothers who said YES being 272 with a mean score of 91 was higher than the 88 respondents who said NO with a mean score of 29, it was agreed and concluded that exclusive breastfeeding benefits newborns by their immunization status.

DISCUSSION OF FINDINGS

Research question 1; To what extent does exclusive breastfeeding and mixed feeding impact physically and mentally on the new born by sex?

This research question addressed unit one of questionnaire. Unit one of the questionnaire had 3 items. The research question was analyzed using the respondent's personal characteristics that were age factor. The total number of respondents who said YES were 221 while those who said NO were 139, since the total respondents who said YES is 221 with a mean score of 74 was higher than the 139 respondents who said NO with a mean score of 46, it was agreed and concluded that exclusive breastfeeding exert more physical and

mental impact on the newborn by sex. Thus support the findings of Mayer-Davis, 2008 that exclusive breastfeeding also appears to protect against diabetes mellitus type 2, at least in part due to its effect on the child's weight and the findings of Ewona et. al, 2018 in Greer, 2008 who upheld that children who are at risk of developing allergic diseases like atopic syndrome can be prevented or delayed through exclusive breastfeeding

Research question 2; does mixed feeding improve the social well-being of newborns by age in Isobo? Unit Two of the questionnaire showed responses on the impact of mixed feeding on the social health of newborns by their age. The total numbers of people who said YES were 238 while those who said NO were 122, since the total number of nursing mothers who said YES being 238 with a mean score of 79 was higher than the 122 respondents who said NO with a mean score of 41, it was agreed and concluded that mixed breastfeeding have significant impact on the social health of newborns by their age. These findings supported the notion of www.babygaga.com that mixed feeding makes a child eat well and sleep well at night.

Research question 3; Does exclusive breastfeeding and mixed feeding improve the immunization status of newborns in Isobo? Unit 3 of the questionnaire showed responses on breastfeeding and benefits on the health of newborns by immunization. The total number of people who said YES were 272 while those who said No were 88, since the total numbers of nursing mothers who said YES being 272 with a mean score of 91 was higher than the 88 respondents who said NO with a mean score of 29, it was agreed and concluded that exclusive breastfeeding benefits newborns by their immunization status better than mixed feeding. This finding also strengthens the notion of American academy of pediatrics, APP, 2009 that some economic benefits of breastfeeding include reduction in the cost of health care among exclusively breastfed babies. Kramer, 2001 also supported this claims when he asserted that Exclusive breastfeeding reduces infant mortality rate that stems from illnesses such as diarrhea or pneumonia, and enables quick recovery from sicknesses. However, these opinions were negated by *Everydayfamily* that sees formula feeding to be good as breastfeeding and even better in certain circumstances.

CONCLUSION

Exclusive breastfeeding and mixed feeding were both preferred and practiced by nursing mothers in Isobor. Both methods were capable of improving the health of children and limiting the chances of diseases in newborns and nursing mothers. Although babies who were exclusively breastfed for a period of six Months displayed significant health benefits by their physical, mental and social dispositions, with very active immunization status compared to others who received alternate feeding for same duration. Most mothers in Isobor preferred a particular breastfeeding method to the

other for personal reasons, while others, for nutritional enrichment, greater health impact, less expensive method, less time and attention demanding etc. Exclusive breastfeeding has shown greater health impact on newborns.

Recommendation

Based on the conclusion, the following recommendations were made; Mothers should be educated more on the health implications of breast feeding to their babies and under normal conditions, encourage their preference for exclusive breast feeding over mixed feeding method for their babies.

Suggestion for Further Study

The researcher suggests that further research works be carried out on health benefits of exclusive breastfeeding and mixed feeding in this area.

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