

Pattern of Breastfeeding amongst Mothers and its Physiological Effects on Infants in Rural Areas, South-South, Nigeria

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Abstract

Breast milk is a natural liquid's food given to babies who are between one-day old to about 2 years old depending on mothers and locations. The aim of this study is to investigate Pattern of Breastfeeding amongst Mothers and its Physiological Effects on Infants in Rural Areas of Rivers State. This is a cross-sectional study involving 111 lactating mothers who are within the age of 18 to 42 years. A well-structured questionnaire was administered to participants. Each participant had one questionnaire to fill appropriately and independently after instructions were given to them by the researchers. The study lasted for a period of 9 weeks. The study revealed that 17(15.30%) had primary education, 64(57.70%) had secondary education while 30(27.00%) had tertiary education. Occupational distribution of respondents shows that 10(9.00%) were civil servants, 61(55.00%) business class while 40(36.00%) were farmers. The results also, shows that 98(88.30%) were nursing mothers while 13(11.70%) were not. The results of breastfeeding pattern of respondents show that 11(9.90%) used breast milk alone, 32(28.80%) breast milk +water, 2(1.80%) breast milk + pap, 31(27.90%) breast milk +NAN or others in this category +30(27.00%) breast milk + solid food while 5(4.50%) employed pap alone. The level of awareness of the respondents about exclusive breastfeeding revealed that 78(70.30%) said YES while 33(29.70%) said NO, that they do not know about exclusive breastfeeding. 90(81.1%) of the respondents do not carry out exclusive breastfeeding and 21(18.9%) carried out exclusive breastfeeding. The duration for breastfeeding among mothers are 5.4% (6 months), 13.5% (5 months), 37.8% (3 months), 43.2% (none).

Key words: Pattern, Breastfeeding, Mothers, Effects, Infants.

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INTRODUCTION

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 (Elyas *et al*, 2017). About 40% of infants

globally, were exclusively breastfed and this is expected to rise to 50% by 2025.

However, the rates of Exclusive breastfeeding (EBF) for the past two decades have been increasing, and there still many huddles to cross in order to achieve the 100% global target coverage recommended by UNICEF. This is evident in the current low prevalence of EBF in the developing world particularly in West

and Central Africa which happen to have one of the highest rates of infant malnutrition in the world (Mensah *et al*, 2017; Cai *et al*, 2012).

Following WHO recommendations and benefits of exclusive breastfeeding (EBF), globally, only 39% of new-borns were put to the breast within 1h of birth, and only 37% of infants were exclusively breastfed. In Sub-Saharan Africa, 20% of women reported exclusive breastfeeding of their last born infant. In Northern part of Africa, the rate of exclusive breastfeeding is 41%, Asia is about 44%, and Latin America 30% (Reddy and Abuka; Hazir *et al*, 2013).

Breastfeeding practice is poor, particularly exclusive breastfeeding in the developing countries and only about 25% of infants in Africa were exclusively breastfed. 6% of infants in developing countries were never breastfed (Lauer *et al*, 2004). Globally, of 56 million infants, about 22 million were exclusively breastfed, whereas over 34 million children were not. Studies have revealed that 80 % of the children who did not benefit from exclusive breastfeeding in developing countries reside in only 29 countries. From these 29 countries, the 10 large countries including Ethiopia have two-thirds of the approximate numbers of non-exclusively breastfed children (Tsegaye *et al*, 2019; Security, 2011; Pieh-Holder 2009).

Exclusive breastfeeding was challenged by a lack of knowledge and different sociocultural beliefs; the incorrect beliefs that breastfeeding mothers are unable to produce enough milk to exclusively breastfeed their child for the first 6 months of life and that society believes that breastfeeding mothers look older than their age. The other barriers include, societal or peer pressure to bottle feed child. Exclusive breastfeeding for the first 6 months is one of the infant and young child feeding practices recommended by WHO which can be appropriately assessed by this lifelong EBF practice over time point EBF practice, because the time point EBF practice is mostly assessed by 24 h recall which cannot give us guarantee about the 6-month course EBF practice (Jama *et al*, 2020).

MATERIAL AND METHODS

This is a cross-sectional study involving 111 lactating mothers who are within the age of 18 to 42 years. A well-structured questionnaire was administered

to participants. Each participant had one questionnaire to fill appropriately and independently after a well-informed consent was granted. The study lasted for a period of 9 weeks. Statistical analysis of data was done using SPSS Version 25 and P value < 0.05 was considered significant for data.

RESULTS

The age distribution of respondents shows that 14(12.60%) were within 18-22 years, 9(8.10%) 23-27 years, 50(45.00%) 28-32 years, 20(18.00%) 33-37 years while 18(16.20%) were within 38-42 years (Table 1). The results of educational distribution of respondents shows that 17(15.30%) had primary education, 64(57.70%) secondary education while 30(27.00%) had tertiary education (Table 2). Occupational distribution of respondents shows that 10(9.00%) were civil servants, 61(55.00%) business class while 40(36.00%) were farmers. The findings of the study shows that 98(88.30%) were nursing mothers while 13(11.70%) were not. The results of breastfeeding pattern of respondents revealed that 11(9.90%) used breast milk alone, 32(28.80%) breast milk +water, 2(1.80%) breast milk + pap, 31(27.90%) breast milk +NAN or others in this category +30(27.00%) breast milk + solid food while 5(4.50%) employed pap alone.

The level of awareness of the respondents about exclusive breastfeeding revealed that 78(70.30%) said YES while 33(29.70%) said NO, that they do not know about exclusive breastfeeding. Also, 68.5% of the respondents do not know the importance of exclusive breastfeeding while 31.5% do. 81.1% of the respondents do not carried out exclusive breastfeeding while 18.8% do. 5.4% of the respondents carried out EBF for 6 months, 13.5% for 5 months, 37.8% for 3 months and 43.2% were not sure. The reasons for the various patterns of breastfeeding adopted by respondents shows that 30(27.00%) said that breasts will becomes pendulous, 62(55.90%) said breast do not produce milk, 1(0.90%) said she is not always around to breastfeed, while 18(16.20%) said the reason is due to their state of health. The finding revealed that, when the respondents were examined on the effects of not giving exclusive breast feeding, 32(28.80%) said it causes frequent passage of loose stool, 5(4.5-0%) said it causes frequent malaria, 27(42.30%) said it causes weight loss, while 27(24.30%) said it causes skin rashes.

Table 1: Age Distribution of Respondents

Age Range	Frequency	Percentage (%)
18-22 Years	14	12.6
23-27 Years	9	8.1
28-32 Years	50	45.0
33-37 Years	20	18.0
38-42 Years	18	16.2
Total	111	100.0

Table 2: Educational Distribution of Respondents

Educational Status	Frequency	Percentage (%)
Primary Education	17	15.3
Secondary Education	64	57.7
Tertiary Education	30	27.0
Total	111	100.0

Table 3: Pattern of Breastfeeding

Breast Feeding Pattern	Frequency	Percentage (%)
Breastmilk Alone	11	9.9
Breastmilk + Water	32	28.8
Breastmilk + Pap	2	1.8
Breastmilk + Nan Or Others In This Category	31	27.9
Breastmilk + Solid Food	30	27.0
Pap Alone	5	4.5
Total	111	100.0

Table 4: Duration of breastfeeding

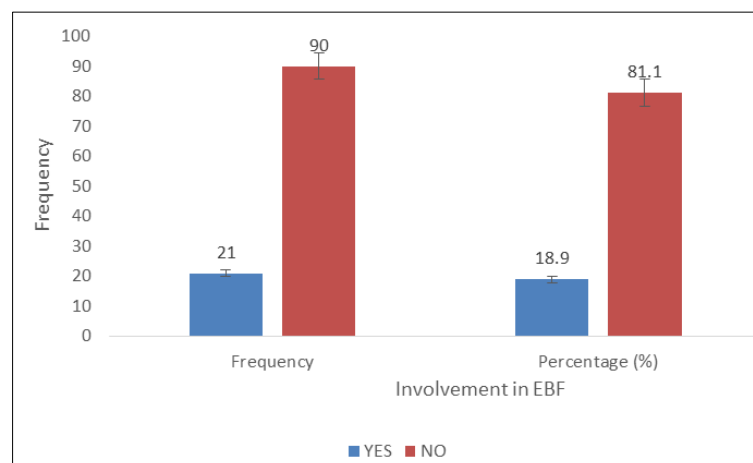
Duration Of EBF	Frequency	Percentage (%)
6 MONTHS	6	5.4
5 MONTHS	15	13.5
3 MONTHS	42	37.8
NONE	48	43.2
Total	111	100.0

Table 5: Reason for adopting pattern of feeding

Reasons	Frequency	Percentage (%)
Breast Will Come Pendulous	30	27.0
Breast Not Producing Milk	62	55.9
Am Not Always Around To Breastfeed	1	.9
Due To Disease Status	18	16.2
Total	111	100.0

Table 6: Effects of Non-exclusive breast feeding

Effects	Frequency	Percentage (%)
Frequent passage of loose stool	32	28.8
Frequent malaria	5	4.5
Weight loss	47	42.3
Skin rashes	27	24.3
Total	111	100.0

**Figure 1: Respondents who carried out EBF**

DISCUSSION

Breastfeeding is a natural phenomenon through which newly born babies received their nutrition from their mothers. This act is being control by neurochemicals secreted from the hypothalamus and the pituitary gland. The act of breastfeeding also increases the bond between mother and child. Exclusive breastfeeding (EBF) is a process and it is important to carry it out for a period of 6 months. This process is crucial because it contains certain substances that confer natural immunity on the child. However, for this process to become improved in an environment, particularly rural areas, awareness and importance of this process (exclusive breastfeeding) must be make known to nursing mothers.

Every mother need to experience breastfeeding because it brings joy to the mother and child during the process. Our study revealed that most of the nursing mothers were between the age 28 to 32 years representing 45% of the total respondents (Table 1). Through the research, the educational status of the respondents was determined and it shows that 17(15.30%) had primary education, 64(57.70%) secondary education while 30(27.00%) had tertiary education. That is, most of the respondents passed through only primary level of education (Table 2). Again, the occupational distribution of respondents was also evaluated and it shows that 10(9.00%) were civil servants, 61(55.00%) business class while 40(36.00%) were farmers. Both level of education and occupation may affect exclusive breastfeeding.

The study revealed that there are variations in the respondents' pattern of breastfeeding. It shows that 28.8% of the respondents offered breastmilk + water, 27.9% offered breastmilk + supplementary food (NAN, SMA, CERELAC etc) and 27.0% offered breastmilk + solid food to their child. Others variation in pattern of breastfeeding offered by the respondents are 9.9% gave breast milk alone, 1.8% gave breast milk + pap, and 4.5% gave pap alone to their child. It was obvious that only 9.9% of the nursing mothers carried out exclusive breastfeeding. These variations in pattern of breastfeeding carried out by the respondents could be due to certain factors such as economic, social, culture, occupation, lack of awareness and inability of the breasts to produce milk (lactogenesis). Economic factor, could be that the respondent may be handy and as such could afford the supplementary foods.

The social factor, could be that the nursing mother is shy to expose her breast during the process of breastfeeding while on transient or in a social gathering. Culture as you know influence most individual. During the course of the study, some of the respondents revealed that their culture demands that as soon as you deliver, you initiate water and later introduce other forms of food to the child. Occupation is one of the

influential factor that determine most variations in pattern of breastfeeding. The study revealed that some of the nursing mothers left their child home with house maid and also kept a prepared solid or semi-solid food that will be given to the child and go to farm and stay a long day before returning home. The house maid gives the child the already prepared food until the mother returns. Again, those nursing mothers who are civil servants have refused to carry their child to their workplace thereby depriving them from exclusive breastfeeding. Also, some of the nursing mothers are not aware of the importance of exclusive breastfeeding because of their locations which is rural areas.

The study revealed that 28.8% of the nursing mothers carried out predominantly feeding, 1.8% carried out complementary feeding, 27.9% carried out supplementary feeding and 9.9% carried out exclusive breastfeeding. Therefore, most of the nursing mothers living in the rural areas of South-South, Nigeria do not carry out exclusive breastfeeding. However, these variations in pattern of breastfeeding by the nursing mothers could be attributed to their low level of education and 57.7% of the nursing mothers have secondary level of education and this may have affected them. Also, probably because these nursing mothers leaves in the rural areas, they were not opportune to get more information about exclusive breastfeeding. 70.3% of the respondents are not aware of EBF and the reason while there are variations in pattern of breastfeeding and this give rise to the low percentage of nursing mothers that carried out exclusive breastfeeding.

This study is not in consonant with previous study by Adah *et al* (ND) which revealed that 77.6% of the mothers who resides in Jos were assessed to have good knowledge of breastfeeding and this difference could be due to location of mothers and level of education. These increase in the level of unawareness and low level of education could be the reason for variations in pattern of breastfeeding among the respondents. Again, these factors could also be the reasons while the nursing mothers could not differentiate between period of exclusive breastfeeding and weaning (which is a gradual process of introducing non-milky food like liquid, semi-solid and solid food along with the breastmilk starting from the age of 6 months to 2 years). 68.5% of the respondents do not know the importance of exclusive breastfeeding probably because they were not enlightening and this may have prompted them to carried out different pattern of breastfeeding.

The study also revealed that 81.1% of the respondents (nursing mothers) do not carry out exclusive breastfeeding and this be attributed to the low level of awareness and low level of education among them. Also, because these nursing mothers are living in rural areas across Rivers State where there are no health

post or health centre. Probably majority of them do not go through proper antenatal were they should have gotten this awareness about exclusive breastfeeding.

The research also revealed the duration of exclusive breastfeeding (EBF) among mothers and 5.4% of the respondents carried out EBF for 6 months, 13.5% for 5 months, 37.8% for 3 months and 43.2% do not. The reasons for the various patterns of breastfeeding including duration of EBF, adopted by respondents shows that 27.0% said that their breasts will become pendulous, 55.9% said breast do not produce milk, 0.9% said they are not always around to breastfeed, while 16.2% said the reason is due to their disease status.

The study further revealed the physiological changes in the child of those nursing mothers who initiated and carried out EBF. 77.5% of the little number of nursing mothers who initiated and carried out EBF have physiological changes that takes place in their child include healthier eating habits, increase in weight, good skin, better cognitive and behavioural development, improved growth of the child, increases bonding and protection. These physiological changes transform the child to a healthy state.

However, when respondents were examined on the effects of non-exclusive breast feeding on their child, 28.8% said it causes frequent passage of loose stool, 4.5-0% said it causes frequent malaria, 42.3% said it causes weight loss, while 24.3% said it causes skin rashes.

CONCLUSION

The study revealed that majority of the respondents do not carried out exclusive breastfeeding due to low level of awareness, low level of education and locations of the nursing mothers. Also, there are variations in the pattern of exclusive breastfeeding among breastfeeding mothers living in South-South, Nigeria. There are also, physiological changes that occur in the child who participated in EBF.

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