



Breast Feeding among Mothers Attending Immunization Clinic at Health Centres in Rivers State Nigeria: An Institutional-based Survey

Nneka Gabriel-Job¹ and Uju S. Azubogu^{1*}

¹University of Port Harcourt Teaching Hospital, Nigeria.

Authors' contributions

This work was carried out by the authors. Both authors read and approved the final manuscript.

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ABSTRACT

Introduction: Breastfeeding, especially exclusive breastfeeding (EBF), is considered effective for children's survival. The practice and duration of EBF still remain low. The aim of this study was to determine the pattern of breastfeeding and factors preventing EBF practices among mothers attending Health Centres for immunization services in Rivers State, Nigeria.

Methodology: Participants (n=480) were mothers who delivered their babies 4-18 months before onset of the study and attended immunization clinic (Health Centres in Obio/Akpor, Rivers State, Nigeria). An interviewer administered pre-tested, semi structured questionnaire was used to obtain the following information: their knowledge of EBF, their breast feeding practices, and reasons for not practicing EBF.

Results: Majority (86.3%) had heard of EBF, having heard it from a health facility. Only 153 (32.0%) women agreed that colostrum should be fed to a new born. 338 (70.4%) responded that the duration of EBF is 6 months while 302 (62.1%) responded that breast feeding should be stopped immediately after the infant becomes one year old. 149 (31.0%) practiced EBF; EBF was significantly related to antenatal care attendance (p = 0.02), spousal support (p = 0.03) and parity (p = 0.003). Returning to work after childbirth was the main reason for not practicing EBF.

Conclusion: Adequate information on the benefits and duration of breastfeeding is needed to enable effective breastfeeding. Support from the family and work place may enhance the practice of EBF in Rivers State.

*Corresponding author: Email: Branduju@yahoo.com;

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1. INTRODUCTION

Breastfeeding is one of the most effective child survival strategies [1]. The human breast milk remains the best food for infants [1,2]. It is readily available at the right temperature and is free of contaminating bacteria [2]. Breast milk provides adequate nutrients and energy for the infant in the first six months of life and can also provide up to half of the infants nutritional needs in the second half of the first year [1]. Breast milk is also rich in antibodies which are protective against many common childhood diseases [1,2]. Breastfed babies perform better on intelligence tests and have lower risks of childhood obesity, type 2Diabetes Mellitus and allergies [1,2].

World Health Organization (WHO) recommends that all babies should be exclusively breastfed in the first six months of life and nutritious complementary feeds added thereafter with breastfeeding continuing till two years or more [3]. Globally, only 41% of infants are exclusive breastfed in the first six months of life which is still far from the 2030 global target of 70%. Two-thirds of mothers continue breastfeeding till one year of age and by two years, the rate drops further to 45% [4]. In Nigeria although the initiation of breastfeeding has improved, the practice and duration of exclusive breastfeeding remains low. According to the 2018 Nigeria Demographic and Health Survey, 42% of children commence breastfeeding in the first hour of life with only 29% of children exclusively breastfed in the first six months of life [5]. Eighty three percent of Nigerian children are breastfed till one year while 28% continue breastfeeding till two years with a median duration of any breastfeeding of 18.5% [5].

The initiation and practice of breastfeeding is influenced by several factors such as parity, maternal level of education and age, place of delivery, family support structure and the prevailing cultural values [6,7]. These factors can therefore be targets of interventions aimed at improving breastfeeding rates in middle and low-income countries. Several barriers to breastfeeding have been identified in some previous studies. Studies done in Nigeria identified breastfeeding not being satisfying to babies, cultural beliefs, poor spousal, family and work place support, need to return to work, maternal health problems and need for a baby to learn to eat other foods as leading barriers to

breastfeeding among the mothers studied [8-10]. In other parts of the world, additional barriers to breastfeeding identified include breastfeeding affects mothers appearance, fear of the evil eye while breastfeeding and inappropriate advice from health care workers [11,12].

Under-five mortality remains high in Nigeria with the current under-five mortality rate at 132 deaths per 1000 live birth and improvements in breastfeeding rates will go a long way to stem this tide [5]. It is important to identify and tackle the barriers to breastfeeding so as to improve the current breastfeeding indices and promote the well-being of children in Nigeria especially in Rivers State. This study was conducted to determine the pattern, knowledge of breastfeeding and factors hindering the practice of exclusive breastfeeding among mothers in Obio/Akpor Local Government Area. The findings from the study will aid policy formulation and design of interventions aimed at promoting the practice of exclusive breastfeeding.

2. METHODOLOGY

2.1 Study Design and Duration

A cross sectional descriptive institutional based study conducted out over 3 months from March to May 2019.

2.2 Study Area

This study was carried out in three health centres in Obio/Akpor Local Government Area of Rivers State. The health centres offer immunization services to mothers and their children twice a week. The number of mothers who attend immunization on each immunization days ranges from 20-40.

2.3 Participants

Participants were mothers who brought their children for immunization within the period of the study. Mothers whose children were 4 months to 18 months of age, who gave consent were recruited into the study.

2.4 Sample Size and Sampling Technique

Using the formula as proposed by Kothari [13] the minimum sample size was calculated. The

prevalence of exclusive breast feeding of 32.0% from a previous study [14], 95% Confidence Interval (CI), an error margin placed at 5% and to adjust for non-response by the participants (10% of the minimum sample size) was added. In all a total of 480 women participated in the study. A purposive sampling method was used. Participants who made the inclusion criteria were recruited into the study until the sample size calculated was met.

2.5 Instrument/Data Collection

An interviewer administered pre-tested, semi structured questionnaire was used. The questionnaire consists of four sections –socio-demographic characteristics of participants, their knowledge of exclusive breast feeding (EBF), their breast feeding practices and reasons for not breastfeeding exclusively.

2.6 Social Classification

The social classification was done based on Olusanya et al. [15] classification into three classes - upper, middle and lower social class with respect to the profession and education status of the husband and the woman.

2.7 Data Analysis and Presentation

Data was entered into Statistical Package for Social Sciences version 25. Results were presented in tables and words in frequencies and percentages. Descriptive statistics was done. Continuous data were presented as mean \pm standard deviation; variables with categorical data were compared using the Chi-square test. In all, the level of significance was set at $p < 0.05$.

3. RESULTS

A total of 480 women aged 18 - 46 years old participated in the study with a mean age of 29.3 ± 6.9 years. Two hundred and ninety three (61.0%) of them were within the ages of 20 -39 years old, 387 (80.6%) of them were married, while 18 (3.8%) were single. All the three social classes were represented, 225 (46.8%) of the women belonged to the middle socio-economic class. Majority of the women (81.5%) had attended antenatal care while pregnant (Table 1).

Regarding knowledge of exclusive breast feeding (EBF): majority of the study participants (86.3%)

had heard of EBF and most (85.8%) of them heard about it in a health facility. A total of 308 (64.0%) women agreed that a new born should be breastfed from one hour after birth while only 172 (35.8%) agrees that they should be fed within an hour of their birth. Only 153(32.0%) women agrees that colostrum should be fed to a new born. 338 (70.4%) of them responded that the duration of EBF is 6 months, and 302(62.1%) of them said breast feeding should be stopped as soon as the child clocks one year (Table 2).

Of the 480 women, 149 (31.0%) of them practice exclusive breast feeding; there was a significant relationship between maternal age, ANC attendance during pregnancy, spousal support, parity of the women and of EBF. Of the 95 women age less than 20 years 9(9.5%) of them breast fed their babies exclusively compared to the older women and of the 393 women who attended ANC 131 (33.3%) of them exclusively breastfed their children compared to the 18(20.9%) of the 87 women that did not attend ANC this was statistically significant p value = 0.02. Mothers with lower parity practiced exclusive breast feeding more (40.2%) compared to those with higher parity (28.9%) this was statistically significant p value = 0.003 (Tables 3 and 4).

Concerning reasons for not breast feeding, about half (57.1%) of the mothers who did not practice exclusive breast feeding reported that returning to their work or business prevented them from practicing exclusive breast feeding, 5(1.5%) of them reported that it was due to inability to lactate, 18(21.8%) was due to ignorance of breast feeding while 47 (14.2%) reported lack of support with domestic work as a cause (Table 5).

4. DISCUSSION

In our study, majority of the participants had heard of exclusive breastfeeding and our finding compared favorably with that reported by Al ketbi et al. [16] in United Arab Emirates (UAE) and some studies done in Nigeria [8,9]. Healthcare facilities were the most common source of information on breastfeeding for mothers in our study and those under comparison and this highlights the important role of these health facilities in promoting breastfeeding among mothers. However, a lower percentage (35.8%) of the participants in our study agreed that breastfeeding should commence within the first hour of delivery. This finding could hinder the successful initiation of breastfeeding as mothers may spend the first hour after delivery giving prelacteal feeds to their babies.

Table 1. Socio-demographic characteristics of the participants

Variables	Frequency	Percentages (%)
Age(years)		
< 20	95	19.8
20-29	158	32.9
30-39	135	28.1
≥ 40	92	19.2
Mean age 29.3±6.9 years		
Marital status		
Married	387	80.6
Divorced /separated	54	11.3
Widowed	21	4.4
Single	18	3.8
Social class		
Upper	95	19.8
Middle	225	46.8
Lower	160	33.3
Parity		
1	92	19.2
>1	388	80.8
Registered for antenatal care during pregnancy		
Yes	393	81.9
No	87	18.1
Total	480	100.0

Table 2. Participants knowledge about breastfeeding

Variables	Frequency	Percentages (%)
Ever heard of EBF		
Yes	414	86.3
No	66	13.7
*Source of information		
Media	208	43.3
Health facility	412	85.8
Others	59	12.3
When should a woman commence breast feeding after delivery		
Within an hour	172	36.0
After one hour	280	58.2
After 24 hours	28	5.8
Should colostrum be given to babies		
Yes	153	32.0
No	327	68.0
How long should a child be on EBF		
6 Months	338	70.4
< 6 months	118	24.6
>6months	24	5.0
At what age should a child stop breast feeding		
1 year	302	62.9
2 years	147	30.6
3 years	31	6.5
Total	480	100.0

Others includes from friends, neighbours, place of worship. EBF –Exclusive breastfeeding,

** Multiple responses were noted*

Table 3. Relationship between exclusive breastfeeding social class and age of the mothers

Social class	Exclusive breastfeeding		Age (years)	Exclusive breastfeeding	
	Yes (%)	No (%)		Yes (%)	No (%)
Upper	24(25.3)	71(74.7)	< 20	9(9.5)	86(90.5)
Middle	76(33.8)	149(66.2)	20-39	108(36.9)	185 (63.1)
Lower	49(30.6)	111(69.4)	≥40	32(34.8)	60(65.2)
Total	149(31.0)	331(69.0)	Total	149(31.0)	331(69.0)
$\chi^2 = 2.28, df = 2, p = 0.32$			$\chi^2 = 25.9, df = 2, p = < 0.001$		

Table 4. The relationship between exclusive breastfeeding, ANC attendance in pregnancy, parity and spousal support

ANC	EBF		Spousal support	EBF		Parity	EBF	
	Yes	No		Yes	No		Yes	No
Yes	131(33.3)	262(66.7)	Yes	146(32.1)	309(67.9)	1	37(40.2)	55(59.8)
No	18(20.9)	69(79.3)	No	3(12.0)	22(88.0)	>1	112(28.9)	276(71.1)
Total	149(31.0)	331(69.0)	Total	149(31.0)	331(69.0)	Total	149(31.069)	331(69.0)
$\chi^2 = 5.31, df = 1, p = 0.02$			$\chi^2 = 4.46, df = 1, p = 0.03$			$\chi^2 = 4.47, df = 1, p = 0.003$		
<i>ANC= Antenatal care attendance, EBF=Exclusive breast feeding</i>								

Table 5. Reasons given for not exclusively breastfeeding their children

Reasons for not exclusively breastfeeding	Frequency	Percentages (%)
I feel very tired/hungry if baby sucks for a long time	6	1.8
Breast milk is not sufficient for the baby	45	13.6
Someone must drink water to survive	21	6.3
No one to help with the house chores	47	14.2
Had to go back to work/ business	189	57.1
Lactation didn't occur	5	1.5
Due to illness	18	5.4
Total	331	100.0

Concerning colostrum, majority of mothers in our study were unaware of its benefits and hence reported that colostrum should not be given to the newborn. This finding was similar to that reported from a study done in India where 77% of the mothers discarded their colostrums [17]. It however differed from those reported from Saudi Arabia, UAE and Nigeria [16,18,19]. The poor awareness on the usefulness of colostrum in our study may be attributable to some negative myths surrounding the use of colostrum in many Nigerian cultures. On the ideal duration of exclusive breastfeeding, a high proportion of participants in our study (70.4%) acknowledged it to be six months. But the majority of mothers in our study reported that the total duration of breastfeeding should not exceed one year. This finding could hinder many babies in our locality from benefitting from the continued nutritional gains from breastfeeding till the age of two years

or more as currently recommended by the WHO [1]. Our findings in this aspect concurred with reports from studies done in the middle East [16,18].

The exclusive breastfeeding rate in our study was 31% despite majority of the women having heard of it. This goes to show that the practice of exclusive may be influenced by several other factors apart from knowledge alone. Our finding in this aspect is comparable to that from a study done in Lagos, Nigeria [9] but higher than findings from studies done in South-western Nigerian and the United States of America (USA) [8,20]. However, in a study done in Uganda, Bbaale [21] reported a higher exclusive breastfeeding rate of 49.8%. The lower exclusive breastfeeding rate reported in our study in comparison to the Ugandan study highlights the need for continued efforts to promote the

knowledge and practice of exclusive breastfeeding in our locality and the world at large.

On factors associated with the practice of exclusive breastfeeding, attendance of ante natal care was significantly associated with the practice of exclusive breastfeeding. Our finding corroborated the reports by Piro and Ahmed, [22] in Iraq and Biks et al. [23] in Ethiopia. This is expected as ante natal classes could be important opportunities for mother to acquire the necessary information regarding the practice of exclusive breastfeeding. Furthermore, Spousal support, young maternal age and lower parity were other factors we found to be associated with the practice of exclusive breastfeeding in our study. Similar findings were reported in a study done in Japan [24]. This is understandable as both factors could provide ample time and the enabling environment for the practice of exclusive breastfeeding. Our study found no association between socioeconomic class and the practice of exclusive breastfeeding. This is in contrast to studies from Iran and Ugandan which reported significant associations between socioeconomic status and exclusive breastfeeding [25,26].

Concerning reasons for not breastfeeding, the most common factors reported by mothers in our study were return to work, poor lactation and lack of support with domestic chores. Similar findings were reported in some other Nigerian studies [8,10]. In contrast, bad odour of breastmilk and fear of the evil eye while breastfeeding were reported as reasons for not breastfeeding in a Tanzanian study [11]. Also, Jama et al. [12] reported inappropriate advice from healthcare workers and pressure from family members as the leading reasons for not breastfeeding among mothers in a South African study. The reasons reported in our study are thus potential areas for intervention and support for breastfeeding mothers in order to promote the practice of exclusive breastfeeding.

5. CONCLUSION

Awareness of exclusive breastfeeding among women attending immunization clinic in the health centres is high (86.3%), however only 31% of them practiced exclusive breastfeeding. Attending antenatal clinic and spousal support were factors that enhanced the practice of exclusive breastfeeding while returning to work

after child birth was a major factor that hindered exclusive breast feeding.

6. RECOMMENDATION

It is recommended that adequate public health enlightenment on the benefits and duration of breast feeding is needed. There is also need for adequate support of all breastfeeding mothers by their families and at their work place for effective breastfeeding.

CONSENT

The authors declare that consent was obtained from all the participants in this study.

ETHICAL APPROVAL

Approval was from the Rivers State Ministry of Health.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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