

Prevalence of Early Initiation of Breastfeeding (EIBF) and Exclusive Breastfeeding (EBF) and Some Associated Factors among Mothers in Gombe Metropolis, Gombe State, Nigeria

Kelechi-Ebisike Vivian O^{1*}, Solomon Mariam D¹, Jaryum Kiri H¹,
Ebisike Kelechi J², Danjin Mela³

¹Department of Biochemistry, University of Jos, Nigeria

²Department of Paediatrics, Federal Teaching Hospital, Gombe, Nigeria

³College of Nursing and Midwifery, Gombe, Nigeria

*Corresponding Author: Kelechi-Ebisike Vivian O, Department of Biochemistry, University of Jos, Nigeria.

DOI: 10.31080/ASNH.2020.04.0586

Received: December 06, 2019

Published: December 26, 2019

© All rights are reserved by Kelechi-Ebisike Vivian O., et al.

Abstract

The World Health Organisation (WHO) and the United Nations Children's Fund (UNICEF) have identified Early Initiation of Breast Feeding (EIBF) and Exclusive Breastfeeding (EBF) in the first six months of life as goal - oriented strategies for optimal nutrition in early childhood. However, this is yet to be reached in developing countries of which Nigeria is one. The study was designed to determine the prevalence of early initiation of breast feeding and exclusive breastfeeding and the factors associated with the practices in the study area. The study was a cross-sectional study conducted among mothers attending selected Primary Health Care Centres in Gombe Metropolis, Nigeria. By systematic random sampling technique, Two-hundred and nine mothers of children aged 6-23 months were sampled. By utilizing a short-structured, interviewer-administered questionnaire, data on socio-demographic characteristics, awareness and practices around EIBF and EBF was collected. The prevalence of EIBF in the study was 83.3% and EBF was 41.3%. EIBF and EBF had a significant relationship with mother's age (p-value=0.001 and p-value=0.009 respectively). There was significant association between EBF and other independent variables including mother's educational level (p-value= 0.014) and awareness of EBF (p-value=0.009). There was no significant association with EBF and father's monthly income and mother's occupation. To derive long-term benefits from early childhood nutrition, interventions should focus on girl child education and community-based sensitization programmes on the need for all mothers to engage in EIBF and EBF for global development.

Keywords: Early Initiation of Breastfeeding; Exclusive Breastfeeding; Ante-natal Clinic; Early Childhood Nutrition; Breastfeeding Practice

Introduction

Adequate nutrition in a child's early days brings benefit to the child and the mother and is also a valuable investment for safeguarding human resources and achieving national development [1]. This starts counting from the day the mother conceives up till the child's second birthday and this first 1000 days is conventionally referred to as the 'critical window of opportunity' [2]. Assuming a rich maternal nutrition status, optimal breastfeeding which entails initiation of breastfeeding within the first hour after birth otherwise referred to as early initiation of breastfeeding (EIBF) and exclusive breastfeeding (EBF) for the first six months of life together with continued breastfeeding for up to two years or beyond are gold standards for Infant and Young Child Feeding (IYCF). Accordingly, The best gift a mother can give her baby from the time the baby is born is breast milk. Breast milk has been proven to be safe, inexpensive, convenient, always at the right temperature even without preparation. As stated by UNICEF, breastfeeding is a mira-

cle investment. It is a universally available, low-tech, high -impact, cost-effective solution for saving babies' lives [3].

The prevalence of EIBF in developing countries is put at about 50% with Nigeria's rate as high as 78.4% [4]. In North central Nigeria, facilitators and barriers to EIBF among women listed colostrums feeding, normal vaginal delivery, delivery at health facilities and social support as variables that enhance early initiation of breastfeeding while components identified as barriers to EIBF included after-birth activities and presumptions such as bathing the baby and considering that the mother needed some time to rest [5]. In Nigeria, data pulled from the Demographic and Health Survey (DHS) in 2013 reports EIBF as 34.7% in a representative sample of over 4,000 women across the nation [6].

As stated by the World Health Organisation (WHO), Exclusive Breastfeeding (EBF) means that the infant receives only breast milk, without any other solids or even water with the exception of

oral rehydration solution, or drops/syrups of vitamins, minerals or medicines in the first six months of life [7]. Breast milk supplies all the nourishment that the child needs to do well and it has been documented that exclusive breastfed babies are 14 times likely to survive than babies who did not receive such nourishment [8]. In an extensive study from 1995-2015 that utilized the global database maintained by UNICEF of IYCF involving 140 countries, it was seen that the prevalence of exclusive breastfeeding in West and Central Africa rose from 12% to 28% and this was alluded to the reduction in sub-optimal feeding and the implementation of policies such as the Baby-Friendly Hospital Initiative and the International Code of Marketing of Breast Milk Substitutes [9]. Although Nigeria has adopted Exclusive Breastfeeding (EBF) as a national policy [10], only 27% Nigerian women are reported to be practicing exclusive breast feeding at the World Breastfeeding week, August, 2019 [11]. Worldwide, less than half of babies were exclusively breastfed in the first six months of life as recommended [12].

This study therefore examines the prevalence and some factors associated with early initiation of breastfeeding and exclusive breastfeeding in Gombe, northeast, Nigeria.

Materials and Methods

Study area

The study was carried out in three major primary health care centres in Gombe metropolis, Gombe state. The state is one of the thirty-six states of the Federal Republic of Nigeria, created on the 1st of October, 1996 out of the former Bauchi state. Gombe metropolis is located between 10° 15'N and 10° 19'N and between Longitude 11° 07'E and 11° 15'E. Gombe state shares boundaries with Yobe State to the North, Adamawa and Taraba States to the South, Borno State to the East, and Bauchi State to the West and has a land area of 20,265 square kilometres. There are two distinct climates, the dry season (November-March) and the rainy season (April-October) with an average rainfall of 850mm. Gombe state has a rich agro economy as more than 80% of the people are into farming, buying and selling of agricultural products which include maize, rice, cowpea, groundnut and soya beans [13-15].

Sample size

The sample size is within acceptable range as in other cross-sectional studies [16,17].

Ethical clearance

An introductory letter was gotten from the Department of Biochemistry, University of Jos, Nigeria and forwarded to the Gombe State Ministry of Health to seek and obtain ethical clearance for the study in the state. The study was approved and ethical clearance was given.

Informed consent and inclusion/exclusion criteria

The aim and modality of the study was explained to the mothers of babies aged 6-23months who gathered at the study site with the aid of a health worker who interpreted in Hausa language. Those who understood the concept of the study and gave their verbal informed consent were recruited into the study. They were given a consent form to either sign or thumb print as an evidence of participating in the study. They were also told that they were free at anytime to opt out of the study.

Data collection

A detailed, face and content validated questionnaire served as the instrument for data collection. It was structured as an interviewer-administered questionnaire that elicited information on mothers' demography, socio-economic status, breastfeeding knowledge and practices. After data collection, the mothers were appreciated and assured of utmost confidentiality. The questionnaires were then sorted, coded and data was computed for statistical analysis. Analysis of data was done with descriptive statistics (frequency, percentages, mean, and standard deviation) and inferential statistics (chi-square).

Results and Discussion

Table 1 presents the sociodemographic status of mothers in the study were young mothers between 20-29 years and about 10% were less than 20years of age. In a similar study in Kware, Sokoto state, northwest Nigeria, 10% of the mothers were between 13 and 17 years old [17]. This points to the fact that early marriage still has a toll in northern Nigeria. An estimate of 42.1% has been reported to be married before their 18th birthday [18]. In northern Nigeria, pressure exerted on girls to go into early marriage has left 78% ≤ 15 yrs married [19]. This has negative consequences for the optimal breastfeeding of babies as young girls may not be psychologically ready to take on this daunting task. This study also found that only 11% of the mothers in the study had no form of education. This implies that there is likely to be a more health-seeking behaviour if these forms of education are engaged as vehicles for transmitting the global message of appropriate infant and young child feeding; when a mother is empowered, she acts better. A study in southern Nigeria revealed a similar trend was where only 12.6% of the mothers had no form of education [20]. The inclusion of nutrition education in school curriculums at all levels will go a long way in tackling malnutrition in Nigeria. Some of the mothers were housewives (44.5%), some engaged in trading (27.3%) and some of them (14.4%) were artisans/craftsmen. This seems to suggest that most mothers were in control of their time and if properly schooled will allocate enough time to exclusive breastfeeding; time has been implicated as one of the limitations for adequate responsive feeding and child care practices [21].

Variable	Frequency (n)	Percentage (%)
Age group		
<20 yrs	20	9.6
20-29 yrs	115	55
30-39 yrs	66	31.6
≥40 yrs	8	3.8
Tribe		
Fulani	98	46.9
Hausa	55	26.3
Others	56	26.8
Educational Level		
Primary	38	18.2
Secondary	97	46.4
Tertiary	23	11
Adult Literacy/Non-formal Education		
None	23	11
Occupation		
Housewife	93	44.5
Civil Servant	19	9.1
Trading	57	27.3
Artisan/Craftsman	30	14.4
Others	10	4.8
Religion		
Islam	183	87.6
Christianity	26	12.4
Marital Status		
Married	205	98.1
Separated/Single	4	1.9

Table 1: Socio-demographic Characteristics of Respondents (n=209).

Table 2 shows the economic status of the families in the study. It revealed that about half of the mothers (49.3%) had a monthly income of < N10,000 (\$27.43) and 39.2% had no monthly income at all. In the same vein, the monthly income of the fathers had 55% of them earning between N10,000 and N49,000 (\$27.43-\$134.43), 16.7% earning less than N10,000 (\$27.43) and 10%, unemployed. It has been reported that poverty is a major possible cause of child undernutrition as seen in a study in Gombe State, Nigeria [16]. The family income is a key factor for maternal nutrition which in turn affects child feeding practices and well being. This is supported by findings in other parts of the country where very low income status was also found, pointing to the economic situation of the country.

Variable	Frequency (n)	Percentage (%)
Mother's Monthly Gross Income		
<N10,000	103	49.3
N10,000-49,000	22	10.5
N50,000-99,000	2	1.0
No Monthly Income	82	39.2
Father's Monthly Gross Income		
<N10,000	35	16.7
N10,000-49,000	115	55.0
N50,000-99,000	30	14.4
≥N100,000	8	3.8
No Monthly Income	21	10.0

Table 2: Economic Status of the Family of Mothers in the Study.

Table 3 shows that 95.2% of the mothers had antenatal clinics for the current child. This is similar to findings in north east Ethiopia (97%) and northwest Ethiopia (98.5%) [22,23]. Attendance to ante natal clinics provides opportunity to access knowledge and prepare mothers for exclusive breastfeeding as reflected in the number of mothers who had information on exclusive breastfeeding (96.7%) and had obtained the information from health workers (86.6%). Also, 74% of the mothers in this study were delivered of their babies in health facilities. This finding is higher than that in Ethiopia where 51% had their babies in health institutions [24].

Variable	Frequency (n)	Percentage (%)
Attended ANC for this baby?		
Yes	199	95.2
No	10	4.8
Place of ANC		
Primary Health Care	126	60.6
Secondary Health Facility	51	24.5
Tertiary Health Facility	17	8.2
Home	14	6.7
Place of Delivery		
Home	48	23.0
Traditional Birth Attendant	8	3.8
Primary Health Centre	93	44.5
Secondary Health Facility	42	20.1
Tertiary Health Facility	18	8.6

Table 3: Antenatal clinic attendance and delivery of respondents.

Variable	Frequency (n)	Percentage (%)
Information on EBF		
Yes	202	96.7
No	7	3.3
Total		
Source of Information		
Family	10	4.8
Friends	6	2.9
Health Workers	181	86.6
Radio/TV	1	0.5
Lecture/workshop/seminar	2	1.0
Others	2	1.0
Baby put to breast within the 1 st hour of delivery		
Yes	174	83.3
No	28	13.4
Not sure	7	3.3
What was done with colostrum?		
Expressed and thrown away	8	3.8
Sucked by the baby	195	93.3
Can't remember	6	2.9
Length of EBF		
0 Month	47	22.6
40 Days	2	1.0
2 Months	3	1.4
3 Months	8	3.9
4 Months	8	3.9
5 Months	51	24.5
6 Months	86	41.3
No Response	3	1.4
Knowledge on recommended duration for EBF		
4Months	4	1.9
6 Months	193	92.3
5 Months	2	1.0
No Information	7	3.3
3 Months	2	1.0
2 Weeks	1	.5
Total	209	100.0

Table 4: Awareness and Practice of Early Initiation and Exclusive Breast Feeding.

Delivery of babies in health settings is likely to inspire early initiation of breastfeeding (EIBF) which may also trigger Exclusive Breastfeeding (EBF) for the recommended duration. In the present study, 83.3% had early initiation of breastfeeding. This finding is higher than the 53% [17], 56.5% [25] and 78.6% [23] submitted from previous studies. Varying religious and socio-cultural beliefs such as the colostrums being impure, giving of washout from Quranic slates and administering of herbal preparations are

hampering optimal breastfeeding in developing countries [17,26]. Awareness of exclusive breastfeeding and its recommended duration was high (96.7%) in this study but did not naturally translate into practice as only 41.3% practiced exclusive breastfeeding. This agrees with another study in the State Specialist hospital in Gombe State where 86% of the mothers interviewed were aware of EBF, 90% expressed willingness to practice, but only 44% reported to have practiced exclusive breastfeeding [16]. A study in Morocco reported higher EBF rate of 57.23% [27] while a lower rate of 30% was obtained in Sokoto, Nigeria [17]. By and large, exclusive breastfeeding for six months is still a major global issue with the latest report of only 41% worldwide [11]. These outputs affirm the words of Johann Goethe which says 'knowing is not enough, we must apply; willing is not enough, we must do'. Findings in this study indicates that exclusive breastfeeding is highly associated with EIBF (p=0.000). This agrees with another study in Egypt where the giving of the first milk/colostrums was positively associated with exclusive breastfeeding. EIBF was found to be associated with marked reduction in diarrhoea throughout the six months of EBF [29]. Exclusive breastfeeding practice was also found to be associated with age of the mother (p= 0.009), level of education of the mother (p=0.014), knowledge of recommended duration of the noble practice (p=0.000) and the place where the child was delivered (p= 0.018). The National Policy on Infant and Young Child Feeding in Nigeria advocates the provision of an enabling environment to support working mothers to involve in optimal infant and young child feeding of which exclusive breastfeeding for 6 months is top on the list [10].

Variables	Pearson Chi-square Value	P-value
Attendance to antenatal clinic	0.559	0.454
Place of delivery	11.960	0.018 ^a
Occupation of Mother	8.692	0.276
Level of Education of mother	14.294	0.014 ^a
Knowledge of recommended duration of EBF	22.867	0.000 ^a
Early initiation of breast feeding(EIBF)	18.985	0.000 ^a
Age of the mother	11.565	0.009 ^a

Values with superscripts are significantly associated with EBF practice at p<0.0.

Table 5: Factors Associated with Mother's Exclusive Breast Feeding Practice.

Conclusion

From the foregoing, it can be concluded that though both EIBF and EBF are associated with the age of mothers in this sample studied, EBF showed association with multiple factors such as mother's educational level and awareness of exclusive breastfeeding and place of delivery of the child. Hence, intervention efforts should focus attention on girl child education and community based sensitization programmes to improve on all the factors associated. More

so, the significant association between EIBF and EBF may imply that encouragement of mothers to initiate breastfeeding soon after delivery will pay off in the child's overall nutritional status.

Acknowledgement

All sources from which this work drew inspiration are hereby duly acknowledged. The authors also acknowledge the cooperation of the mothers who participated in the study and the assistance of the health workers at the primary health care centres.

Bibliography

1. Maalouf- Manasseh Z., *et al.* "Giving children the best start in life: Integrating nutrition and early childhood development programming within the first 1,000 days". (2016).
2. United Nations Children's Fund (UNICEF). "First 1000 days: the critical window to ensure that children survive and thrive". (2017).
3. United Nations Children's Fund (UNICEF). "Improving breastfeeding, complementary foods and feeding practices". (2018).
4. Takahashi K., *et al.* "Prevalence of early initiation of breastfeeding and determinants of delayed initiation of breastfeeding: secondary analysis of the WHO Global Survey". *Science Report* 7 (2017): 4868.
5. Jacdonmi I., *et al.* "Determinants of exclusive breastfeeding continuity among mothers of infants under six months in Plateau State Nigeria". *International Journal of Health Sciences and Research* 6.4 (2016): 18-25.
6. AS Berde and SS Yalcin. "Determinants of early initiation of breastfeeding in Nigeria: A population-based study using the 2013 Demographic and Health Survey Data". *BMC Pregnancy Childbirth* 32 (2016).
7. World Health Organisation (WHO). "Guiding principles for complementary feeding of the breast fed child". Geneva (2003).
8. United Nations Children's Fund (UNICEF). "More than 5 million Nigerian newborn miss out on head start in life" (2016).
9. Cai X., *et al.* "Global trends in exclusive breastfeeding". *International Breastfeeding Journal* 7.1 (2012): 12.
10. Federal Ministry of Health (FMOH). "National Policy on Infant and Young Child Feeding in Nigeria" (2010).
11. World Breast Feeding Week. "Why only 27% of Nigerian women practice exclusive breastfeeding" (2019).
12. United Nations Children's Fund (UNICEF). "Why family-friendly policies are critical to increasing breastfeeding rates worldwide" (2019).
13. Abashiya M., *et al.* "Rainfall characteristics and occurrence of floods in Gombe Metropolis, Nigeria". *Ethiopian Journal of Environmental Studies and Management* 10.14 (2001): 44-54.
14. Gombe state. gombestate.gov.ng.
15. Gombe state. <https://tukool.com>
16. M Danjin and NU Dawud. "A survey of nutritional status of children 0-12 months in specialist hospital, Gombe, Nigeria". *Chrimed Journal of Health and Research* 2.2 (2015): 109-114.
17. Oche MO., *et al.* "Knowledge and practice of exclusive breastfeeding in Kware, Nigeria". *African Health Sciences* 11.3 (2011): 51-523.
18. C Malé and Q Wodon. "Basic profile of child marriage in Nigeria. World Bank, Washington, DC". (2016).
19. Braimah TS. "Child marriage in Northern Nigeria: Section 61 of Part I of the 1999 Constitution and the protection of children against child marriage". *African Human Rights Law Journal* 14.2 (2014): 474-488.
20. EE Udoh and OK Amod. "Complementary feeding practices among mothers and nutritional status of infants in Akpabuyo Area, Cross River State Nigeria". *Springer Plus* 5.1 (2016): 2073.
21. Pelto GH., *et al.* "Improving feeding practices: current patterns, common constraints, and the design of interventions". *Food and Nutrition Bulletin* 24 (2003): 45-82.
22. GB Wondu and N Yang. "Determinants of suboptimal complementary feeding practices among children aged 6-23 months in selected urban slums of Oromia zones (Ethiopia)". *Journal of Nutrition and Food Sciences* 7 (2017): 3.
23. G Arage and H Gedamu. "Exclusive breastfeeding practice and its associated factors among mothers of infants less than six months of age in Debre Tabor Town, Northwest Ethiopia: A cross-sectional study". *Advances in Public Health* (2016).
24. Molla M., *et al.* "Complementary feeding practices and associated factors among mothers having children 6-23 months of age, Lasta district, Amhara region, Northeast Ethiopia". *Advances in Public Health* (2017).
25. Akinyinka MR., *et al.* "Breastfeeding Knowledge and Practices among Mothers of Children under 2 Years of Age Living in a Military Barrack in Southwest Nigeria". *International Journal of Maternal and Child Health and AIDS* 4.3 (2010): 222-228.
26. M Muchacha and E Mtetwa. "Social and economic barriers to exclusive breast feeding in rural Zimbabwe". *International Journal of MCH and AIDS* 3.1 (2015): 16-21.

27. Habibi M., *et al.* "The impact of maternal socio-demographic characteristics on breastfeeding knowledge and practices: An experience from Casablanca, Morocco". *International Journal of Pediatrics and Adolescent medicine* 5.2 (2018): 39-48.
28. Johann Wolfgang von Goethe.
29. Clemens J., *et al.* "Early initiation of breastfeeding and the risk of infant diarrhea in rural Egypt". *Pediatrics* 104.1 (1999): e3.

Assets from publication with us

- Prompt Acknowledgement after receiving the article
- Thorough Double blinded peer review
- Rapid Publication
- Issue of Publication Certificate
- High visibility of your Published work

Website: <https://www.actascientific.com/>

Submit Article: <https://www.actascientific.com/submission.php>

Email us: editor@actascientific.com

Contact us: +91 9182824667