

KNOWLEDGE OF EXCLUSIVE BREASTFEEDING AMONG FEMALE PRIMARY SCHOOL TEACHERS IN MAIDUGURI METROPOLITAN COUNCIL, BORNO STATE

Maryam Saidu Saleh

Department of Physical and Health Education Kashim Ibrahim College of Education,
Maiduguri, Borno State, Nigeria

ABSTRACT

This research was conducted to assess knowledge of exclusive breastfeeding among female primary school teachers in Maiduguri Metropolitan council, Borno State. Exclusive Breastfeeding (EBF), refers to the practice of feeding the infant for the first six months of life on breast milk only, without any other type of food including water. Thereafter, infants could be given complementary food with continued breastfeeding up to two years of age. Survey research design was used for this study. The population of this study comprised of all female primary school teachers in Maiduguri Metropolitan Council, Borno State. Availability sampling procedure was used for data collection which yielding a total of 392 teacher. The instruments for this study was adopted and modified from previous study named Knowledge of exclusive breastfeeding among female teachers in primary schools in Maiduguri Metropolitan Council (MMC). The questionnaire divided into two sections: section A is on demographic Questionnaire, while section B on was knowledge of exclusive breastfeeding among female teachers in primary schools in Maiduguri Metropolitan Council (MMC). It contains 5 items. The instrument was validated for face and content validity by expert in Department of Physical and Health Education University of Maiduguri, Borno State. The reliability of the instrument was tested at Maiduguri Capital School. Split-half reliability method was employed to test the reliability of the instrument; data collected was subjected to statistical test using Spearman Brown prophecy formula to determine the reliability index of 0.75. Descriptive statistics of frequency count and percentages was employed to describe demographic information while inferential statistics of Chi-square and ANOVA was used to test hypotheses at 0.05 level of significance. The result showed that female primary school teachers in MMC had good knowledge of EBF, but not adequate. Moreover, there is significant difference in the knowledge of exclusive breastfeeding among female teachers in primary schools in MMC, Borno State ($P < 0.05$), but respondents did not differ in the knowledge of exclusive breastfeeding ($P > 0.05$). It was concluded that the result of this study showed that female teachers in primary schools Maiduguri Metropolitan Council, Borno State, had good knowledge of EBF, but the knowledge is not adequate. It was recommended that the knowledge of exclusive breast feeding among female teachers in primary schools in Maiduguri Metropolitan Council should be promoted and spread to the people there community.

Key words: Knowledge, Exclusive Breastfeeding, Female Teachers

INTRODUCTION

Exclusive Breastfeeding (EBF), refers to the practice of feeding the infant for the first six months of life on breast milk only, without any other type of food including water. Thereafter, infants should be giving complementary food with continued breastfeeding up to two years of age. Awatef, Olfa, Imed, Kacem, Imem, Rim, Mohamed and Slim (2009), defined breastfeeding as the feeding of an infant with breast milk directly from female human breast (that is lactation), rather than using infant formula from a baby bottle or other containers. According to Picciano (2001) the healthiest and best form of milk for babies is the human breast milk. Breastfeeding is the ideal practice that best good for the psychological and physiological needs of infant (World Health Organisation, 2003). Exclusive breastfeeding which means feeding of baby with breast milk only for the first six month without mixed it with any other food except water, syrups, minerals and vitamins is better than non-exclusive breastfeeding because prevent and protect infants against morbidity and mortality (Kramer

& Kakuma, 2004; León-Cava, Lutter, Ross & Martin, 2002). Exclusive breastfeeding has more advantages over non-exclusive breastfeeding in the sense that it reduces economic cost, it makes infants to get adequate nutrition, protecting them against communicable diseases such as diarrhea as a result of this brings about increasing birth spacing (Thappa, Short & Potts, 1988; Perez, Labbok & Keenan, 1992).

Knowledge is the understanding of mothers or women have about exclusive breast feeding. In a study conducted by Abasiattai, Etukumana, Nyong and Eyo (2014) in Uyo, it was revealed that two third of the women were aware of exclusive breast feeding, while about 40% of the participants were able to define exclusive breast feeding, the percentage of women had sufficient knowledge of exclusive breast feeding was considerably low when compared with other findings in other parts of the country where similar research was carried out. According to the report by Health For All initiative (HFA, 2015), the number of children that will be exclusively breastfed will increase to 80% (Agho, Dibley, Odiase & Ogbomwa, 2011). Also, (UNICEF) recommended that 90% of infants not up to 6 months of age in less developed countries should be fed with breast milk only (Yesildal, Aytar, Kocabay, Mayda, Dagli & Bahcebasi, 2008). In Nigeria, the rate of breastfeeding differs considerably with high rate of reported cases from Sokoto State in which the exclusive breastfeeding in the first 6 months of infants was 78.7%, but few mothers 8% practice breast feeding within the first hour of delivery (Oche & Umar, 2008). In Calabar, South Nigeria, the rate of exclusive breast feeding according to the research conducted was reported to be 22.9% among the infants less than 6 months (Ekure, Antia-Obong, Udo & Edet, 2003). Another study was in Edo State, Nigeria, and the researcher reported that 82% of the participants breastfeeding their baby, while only 20% practice exclusive breast feeding for 6 months (Salami, 2006). In Maiduguri, the knowledge of exclusive breastfeeding among nursing mothers was highly poor even prior to Boko haram insurgency which has displaced many people from their domain, and has significantly contributed to malnutrition in children under two years. When some of the respondents were asked why they cannot practice exclusive breast feeding for the first six months, some said it was because of unexpected new pregnancy, mother's illness, child has grown enough to eat adult food, no milk in there breast among others. It is against this background this research was conducted to assess knowledge of exclusive breastfeeding among female teachers in primary schools Maiduguri Metropolitan council, Borno State.

Ho₁: There is no significant difference in knowledge of exclusive breastfeeding among female teachers in primary schools Maiduguri Metropolitan Council, Borno State.

Ho₂: There is no significant difference in knowledge of exclusive breastfeeding among female teachers in primary schools Maiduguri Metropolitan Council, Borno State based on age.

METHODOLOGY

Survey research design was used for this study. Survey research has the advantage of uniqueness because the information to be collected may not be available from other sources, having unbiased representation of the population of interest and standardization of measurements as same information is collected from every respondent (Owens, 2002). Ponto (2015) buttressed that survey research design is the collection of information from a sample of individuals through their responses to questionnaire. This type of research design allows for a variety of methods to recruit participants, collect data, as well as utilize various types of instruments. Survey research design can use quantitative strategies such as questionnaires. The population of this study will comprise of all female primary school teachers in Maiduguri Metropolitan Council, Borno State. Availability sampling procedure was used to collect data from 392 respondents.

The instruments for this study adopted and modified from previous study (Ihudiebube-Splendor, Okafor, Anarado, Jisieike-Onuigbo, Anthonia, Nwaneri, Arinze and Chikeme, (2019) named knowledge of exclusive breastfeeding among female teachers in primary schools in (MMC). Questionnaire which is divided into two (2) sections: section A is on Socio-demographic Questionnaire and section B on is knowledge of exclusive breastfeeding among female teachers in

primary schools. It uses Yes or No response scale. It contains 5 items. The instrument was validated for face and content validity by experts in University of Maiduguri Department of Physical and Health Education. The reliability of the instrument was established using Split-half method as 0.75.

Descriptive statistics of frequency count and percentages were employed to describe demographic information while inferential statistics of Chi-square and ANOVA were used to test hypotheses at 0.05 level of significant. Data collected for this study were analyzed using the Statistical Package for Social Sciences (SPSS) version 22.0 for windows (SPSS INC ILLINOIS USA 2004).

RESULTS

Table 1: Demographic Information of the Respondents

Variables		Frequency	Percentage
1. Age	18-25years	103	26.3
	26-32years	134	34.2
	33-39years	100	25.5
	40years	55	14.0
	Total	392	100.0
2. Educational Qualification	HND/BSc/BA/BED	172	43.8
	Diploma/NCE	210	56.2
	Total	392	100.0

Table 1 which is on demographic information of the respondents shows that 103 (26.3%) of the participants were between the ages of 18-25years, 134 (34.2%) were between the ages of 26-32years, 100 (25.5%) were between the ages of 33-39years, while 55(14.0%) of the respondents were 40years of ages. The table further shows that 172(43.8%) of the respondents had HND/BSc/BED, while 210 (56.2%) of the respondents had Diploma/NCE. This means majority of the participants had Diploma/NCE.

Table 2: Knowledge of EBF among Female Teachers in Primary Schools Maiduguri Metropolitan Council, Borno State.

S/NO	Variables	Frequency	Percentage (%)
1.	Do you know what EBF is all about?		
	Yes	365	93.1%
	No	27	6.9%
2.	Have you seen other mothers Breastfed Exclusively?		
	Yes	355	90.5%
	No	37	9.5%
3.	What is the Time of initiation of EBF?		
	Within 1 hour after birth	247	63.0%
	After 24 hours of birth	123	31.3%
	I don't know	22	5.6%
4.	Which of the following do you think is advantages of EBF?		
	Protection against infection and childhood malnutrition	124	31.6%
	Contains right amount of nutrients and water	111	28.3%
	Protection of baby against diarrhoea	67	17.0%
	Strengthens mother-child bonding	45	11.4%

	Economical and readily available	21	5.3%
	Aids in child spacing	12	3.0%
	Protects the mother against cancers	9	2.2%
	Others (intelligent & healthy baby)	3	0.7%
5.	Exclusive breastfeeding is:		
	Giving baby breast-milk only	347	88.5%
	Giving baby breastmilk and water only	45	11.4%

Key: EBF Exclusive Breast Feeding

Table 2 which is on Knowledge of EBF among female teachers in primary schools Maiduguri Metropolitan Council, Borno State showed that 365 (93.1%) knows what EBF is all about, while 27 (6.9%) of the respondents did not know what EBF is all about. The table also indicated that 355 (90.5%) of the teachers stated that they had seen other mothers breastfed exclusively, but 37 (9.5%) of the participants said they had not seen mothers breastfed exclusively. Two hundred and forty-seven 247 (63.0%) said EBF is initiated within 1 hour after birth, 123 (31.3%) said after 24 hours of birth, while 22 (5.6%) don't know the initiation period of EBF. Moreover, 125 (31.6%) of the respondents stated that EBF protect against infection and childhood malnutrition, 111(28.3%) said EBF contains right amount of nutrients and water, 67 (17.0%) said protection of baby against diarrhoea, 45(11.4%) contend that it strengthens mother-child bonding, 21(5.3%) said EBF economical and readily available, 12(3.0%) stated that EBF Aids in child spacing, 9(2.2%) of the teachers said EBF protects the mother against cancers, while 3(0.7%) of the participants said EBF promote intelligent and the baby healthy. Therefore, female primary school teachers in MMC had good knowledge of EBF, but not adequate

Ho₁: There is no significant difference in knowledge of exclusive breastfeeding among female teachers in primary schools Maiduguri Metropolitan Council, Borno State.

Table 3: Summary of chi-square on knowledge of exclusive breastfeeding among female teachers in primary schools Maiduguri Metropolitan Council, Borno State

Variables	Observed N	Expected N	Residual	Chi-Square	df	Prob	Decision
Agreed	364	196.0	168.0	288.000 ^a	1	0.0001	Rejected
Disagreed	28	196.0	-168.0				
Total	392						

Table 2 showed the summary of Chi-square on the difference in in knowledge of exclusive breastfeeding among female teachers in primary schools Maiduguri Metropolitan Council, Borno State. The table reveal the calculated Chi-square value of 288.000^a with the calculated p-value of .0001. This indicates that there was significant difference in the in knowledge of exclusive breastfeeding among female teacher in primary schools in MMC, Borno State ($P < 0.05$). Therefore, the null hypothesis was rejected.

Ho₂: There is no significant difference in knowledge of exclusive breastfeeding among female teachers in primary schools Maiduguri Metropolitan Council, Borno State based on age.

Table 4: Summary of ANOVA on knowledge of exclusive breastfeeding among female teachers in primary schools Maiduguri Metropolitan Council, Borno State based on age

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.188	3	.396	.468	.705
Within Groups	328.313	388	.846		
Total	329.500	391			

Table 4 presents the summary of One-way ANOVA on the in knowledge of exclusive breastfeeding among female teachers in primary schools Maiduguri Metropolitan Council, Borno State based on age. The table revealed the calculated F-value of .468 with the calculated p-value of .705. This indicates that there is no significant difference in knowledge of exclusive breastfeeding among female teachers in primary schools Maiduguri Metropolitan Council, Borno State based on age, therefore the null hypothesis was retained. This implies that the respondents did not differ in the knowledge of exclusive breastfeeding among female teachers in primary schools Maiduguri Metropolitan Council, Borno State based on age ($P > 0.05$).

DISCUSSION

This research was conducted to assess knowledge of exclusive breastfeeding among female teachers in primary schools Maiduguri Metropolitan council, Borno State. Survey research design was used for this study. The population of this study comprised of all female primary school teachers in Maiduguri Metropolitan Council, Borno State. Availability sampling procedure was used for data collection and a total of three hundred and ninety two. Majority of the primary school teachers in Maiduguri Metropolitan Council were between the ages of 26-32years, and majority of them had Diploma/NCE. The result of the study indicated that knowledge of EBF among female teachers in Maiduguri Metropolitan council is good. This was confirmed as most the respondents 365 (93.1%) knows what EBF is all about. This is in-line with a study conducted by N.G.O Safe Child, 2017 in Jere, Konduga, Mafa, and MMC of the Borno State, where the authors found that majority of the respondents 96.7% ($n=1990$) of mothers know that the first food a new born baby should be given is breast milk, because it makes the baby to be healthy and strong. Moreover, 125 (31.6%) of the respondents stated that EBF Protect against infection and childhood malnutrition which is the main benefit of EBF. This is similar to other previous studies beyond Nigeria Al Ketbi, Al Noman, Al Ali, Darwish, Al Fahim, & Rajah, (2018). The study was conducted among women visiting primary healthcare clinics on the island of Abu Dhabi, United Arab Emirates. The researchers found that total of 176 (51.2%) mothers were found to have good knowledge breastfeeding. However the result of this study is disagree with the study of Ihudiebube-Splendor, Okafor, Anarado, Jisieike-Onuigbo, Anthonia, Nwaneri, Arinze and Chikeme, (2019), the writer stated that generally, majority of the participants 134 (66.7%) had poor knowledge of EBF. The disagreement in findings could be attributed to differences in educational qualification and occupational status.

The test of hypothesis among the female teachers shows that there is significant difference in knowledge of exclusive breastfeeding among female teachers in primary schools Maiduguri Metropolitan Council, Borno State. This is in line with the study of Al Ketbi, Al Noman, Al Ali, Darwish, Al Fahim and Rajah, (2018) in United Arab Emirates among women visiting primary healthcare clinics on the island of Abu Dhab. The researchers found that knowledge of breastfeeding was better among mothers with university certificate or higher educational background, those who stayed with their husband, relatives along sides with their children. The result of this study is also similar to the result of study conducted by Osibogun, Olufunlayo & Oyibo, (2018). They explained that all the respondents had knowledge of exclusive breastfeeding, more than seventy-seven percent of the participants knew that babies should be exclusively breastfed for the first 6 months of life while 3.5% were unsure. A large number (89–96%) of respondents were aware of the benefits of EBF to the infant.

The test of the hypothesis two indicates that there is no significant difference in knowledge of exclusive breastfeeding among female teachers in primary schools Maiduguri Metropolitan Council, Borno State based on age, therefore the null hypothesis was rejected. This implies that the respondents did not differ in the knowledge of exclusive breastfeeding among female teachers in primary schools Maiduguri Metropolitan Council, Borno State based on age. This is similar to study of Chikaodili, Chinyelu, Agnes, Nonyelum, Anthonia, Ada, Joyce & Paulina (2019) in Enugu, South-East Nigeria. The authors reported that the result indicated that significant difference exist in the participants' place of residence, exclusive breast feeding knowledge sources, and exclusive breast

feeding knowledge, but there is no significant difference in Knowledge of exclusive breast feeding among the participants based on age. The result of this study also agreed with the foreign study (Mohamed, 2012) in which 129 out of 384 participants stated that baby should be breastfed exclusively for 6-months. The researcher reported that the period of exclusive breastfeeding was significantly not different among women who stated that Islamic religion speaks in advocate of breast feeding for at least two years. Moreover, the period of exclusive breastfeeding was significantly not different among who practice breastfeeding in the first hour. Similar result was also found in the level of education of mothers, age and the time of exclusive breastfeeding ($F = 0.912$, $p = 0.403$).

CONCLUSION

Based on the findings of the study, it was recommended that:

This study assessed knowledge of exclusive breast feeding among female teachers in primary schools in Maiduguri Metropolitan Council. The result of the study showed that female teachers in primary schools Maiduguri Metropolitan Council, Borno State, had good knowledge of EBF, but the knowledge is not adequate.

RECOMMENDATIONS

1. It was recommended that the knowledge of exclusive breast feeding among female teachers in primary schools in Maiduguri Metropolitan Council should be promoted and spread to the people there community.
2. There is need for increased workplace-based support for exclusive breastfeeding among breastfeeding mothers who work in busy employment facilities.

REFERENCE

- Abasiattai, A.,M, Etukumana, E., A, Nyong, E., & Eyo, U., E (2014). Knowledge and practice of exclusive breastfeeding among antenatal attendees in Uyo, Southern Nigeria. *Gaziantep Med J* 20(2) (in press), DOI: 10.5455/GMJ-30-45779
- Agho, K., E, Dibley M.J, Odiase, J.I & Ogbomwa, S.M. (2011). Determinants of exclusive breastfeeding in Nigeria. *Biomed Central Pregnancy and childbirth*; 11:2. doi:10.1186/1471-2393-11-2.
- Al Ketbi, M., Al Noman, S., Al Ali, A., Darwish, E., Al Fahim M & Rajah, J (2018). Knowledge, attitudes, and practices of breastfeeding among women visiting primary healthcare clinics on the island of Abu Dhabi, United Arab Emirates: *International Breastfeeding Journal* (2018) 13:26 <https://doi.org/10.1186/s13006-018-0165-x>
- Al Ketbi, M., Al Noman, S., Al Ali, A., Darwish, E., Al Fahim, M., & Rajah, J., (2018). Knowledge, attitudes, and practices of breastfeeding among women visiting primary healthcare clinics on the island of Abu Dhabi, United Arab Emirates *International Breastfeeding Journal* (2018) 13:26 <https://doi.org/10.1186/s13006-018-0165>.
- Awatef, M., Olfa, G., Imed H., Kacem M., Rim, C., Mohamed, B. & Slim, BA (2009). Breastfeeding reduces breast cancer risk: A case control in Tunisia. *Cancer Causes & Control*, 21(3):393-397.
- Chikaodili, N. Ihudiebube-Splendor, Chinyelu, B. Okafor, Agnes, N. Anarado, Nonyelum, N. Jisieike-Onuigbo, Anthonia, U. Chinweuba, Ada, C. Nwaneri, Joyce, C. Arinze, & Paulina, C. Chikeme (2019). Exclusive Breastfeeding Knowledge, Intention to Practice and Predictors among

Primiparous Women in Enugu South-East, Nigeria: Hindawi Journal of Pregnancy Volume 2019, Article ID 9832075, 8 pages <https://doi.org/10.1155/2019/9832>

- Ekure E.N, Antia-Obong O.E, Udo J.J & Edet, E.E (2003). Maternal exclusive breastfeeding practice in Calabar, Nigeria: Some related social characteristics. *Nigerian Journal of Clinical Practice*;6(2):92-94. 15. Salami, L.I (2006). Factors influencing breastfeeding practices in Edo State, Nigeria. *African Journal of Food and Agriculture, Nutrition and Development online* 6(2)
- Ihudiebube-Splendor, N., C., Okafor, B., C., Anarado, N., A., Jisieike-Onuigbo, N., N., Anthonia, U., C, Nwaneri, C., A., Arinze, C., J & Chikeme, C., P. (2019). Exclusive Breastfeeding Knowledge, Intention to Practice and Predictors among Primiparous Women in Enugu South-East, Nigeria. *Hindawi Journal of Pregnancy* Volume 2019, Article ID 9832075, 8 pages <https://doi.org/10.1155/2019/9832075>
- Kramer MS, Kakuma R, (2004). The optimal duration of exclusive breastfeeding: a systematic review. *Adv Exp Med Biol*.554:63–77. [PubMed] [Google Scholar]
- León-Cava N, Lutter C, Ross J, Martin L (2002). Quantifying the Benefits of Breastfeeding: A Summary of the Evidence. Washington, USA: The Food and Nutrition Program (HPN), Pan American Health Organization (PAHO), The Linkages Project; 2002. [Google Scholar]
- Mohamed, A (2012). Breastfeeding knowledge, attitude and practice among school teachers in Abha female educational district, southwestern Saudi Arabia: *Al-Binali International Breastfeeding Journal* 2012, 7:10 <http://www.internationalbreastfeedingjournal.com/content/7/1/10>
- Oche, M.O, Umar A.S (2008). Breastfeeding practices of mothers in rural a rural community of Sokoto, Nigeria. *Nigerian Postgraduate Medical Journal* June; 15(2):101-104.
- Osibogun, O. O, Olufunlayo, T., F & Oyibo, S., O (2018). Knowledge, attitude and support for exclusive breastfeeding among bankers in Mainland Local Government in Lagos State, Nigeria. *International Breastfeeding Journal* 13:38 <https://doi.org/10.1186/s13006-018-0182-9>
- Owens, K., L (2002). Introduction to Survey research Design Assistant Director for Research Planning Survey Research Laboratory
- Perez A, Labbok M, Keenan, J.J (1992). Clinical studies of the lactation Amenorrhoeic method for family planning. *Lancet*. 339:968–970. [PubMed] [Google Scholar]
- Picciano, M. (2001).Nutrient composition of human milk. *Paediatric Clinic North America*, 48(1): 53-
- Ponto J (2015). Understanding and Evaluating Survey Research. *J Adv Pract Oncol*. 2015 Mar-Apr; 6(2):168-71. Epub Mar 1. PMID: 26649250; PMCID: PMC4601897; reduces breast cancer risk: A case control inTunisia. *Cancer Causes & Control*, 21(3):393-397
- Safe the Children, (2017). Maternal and Young Child Feeding, WASH and Child Protection KAP Survey Report: Jere, Konduga, Mafa, and MMC

- Salami, L., I (2006). Factors influencing breastfeeding practices in Edo state, Nigeria, Vol. 6 No. 2 (2006) DOI: 10.4314/ajfand.v6i2.71755
- Thappa S, Short R, Potts M (1988). Breast feeding, birth spacing and their effects on child survival. *Nature*. 679–682. [PubMed] [Google Scholar]
- World Health Organisation (2003). Encouraging, supporting and promoting breastfeeding in the Australian community
- Yesildal, N., Aytar, G., Kocabay, K., & Mayda, A., S., Dagli, S., C. & Bahcebasi T.(2008). Breastfeeding practices in Dutze, Turkey. *Journal of Human Lactation*. 24(4): 393-400