

Constraints to Exclusive Breastfeeding Practice Among Lactating Mothers in Omala LGA of Kogi State: Implications for Protection Against Infants' Reemerging Infections and Maternal Health Problems

Tochi Emmanuel Iwuagwu
tochi.iwuagwu@unn.edu.ng, 08063290746

Osmond Chukwuemeka Ene
osmond.ene@unn.edu.ng, 08033368643

Department of Human Kinetics and Health Education
University of Nigeria, Nsukka

Abstract

The study examined constraints to exclusive breastfeeding practice among lactating mothers in Omala LGA of Kogi State and its implications for infants' protection against reemerging infections and maternal health problems. Three research questions and two null hypotheses guided the study. The study adopted the descriptive survey research design. The sample was 322 lactating mothers selected from a population of 3,320 through multi-stage sampling procedure. A valid and reliable questionnaire was used for data collection. Percentages were used to answer the research questions while chi-square statistic was used to test the null hypotheses at .05 level of significance. Results of the study among others indicated that a high proportion of lactating mothers (61.5%) reported maternal occupation; a moderate proportion (47.7%) reported conflicting positions from significant others; while low proportion (22.4%; 38.9%; 25%) reported maternal health and lactation problems and poor nutrition as constraints to EBF practice respectively. Lactating mothers with secondary education (71.7%) reported slightly higher proportion of constraints to EBF practice than those with primary education (66.1%), tertiary education (59.2%), and no formal education (44.7%). Lactating mothers aged 15-30 years (75.9%) reported higher proportion of constraints to EBF practice more than those aged 45 years or above (57.3%), and 31-44 years (52.4%). There were significant differences in the constraints to EBF practice among lactating mothers based on level of education and age. Based on the findings, recommendations were made among which is that Government, Non-Governmental organizations and other allied health professionals and social organization such as churches, mosques should carryout enlightenment campaign programmes that could correct the misconceptions and fallacies about EBF that constraint mothers from effectively adopting it.

Key words: Breastfeeding, Exclusive Breastfeeding, Constraints, Practice, Lactating Mothers.

Introduction

The constraints to exclusive breastfeeding practice are mainly due to physical and socio-economic factors worldwide, particularly in developing countries. Exclusive breastfeeding promotion has been the focus and interest of many health agencies and public health programmes. The repercussions for the health and survival of children who are not exclusively breastfed are very serious. Lack of practice of exclusive breast feeding (EBF) seems to be associated with high rate of diseases and deaths of children globally. This is because breast milk is uniquely suitable to the human infant's nutritional needs, and is a live substance with unparalleled immunological and anti-inflammatory properties that protect against a host of illnesses and diseases for both mothers and children (Ramachandran, 2004). According to Medindia (2014), breast milk is the milk produced by a lactating female. In this study, a lactating mother is a female or woman who produces breast milk after giving birth to feed her baby. Breast milk contains colostrum (the first milk) which is a gentle, natural laxative that helps to clear the baby's intestine, decreasing the chance for jaundice to occur (Medela, 2014). Medindia (2014) submitted that breastfeeding should commence as soon as possible after giving birth and every 1 to 3 hours per 24 hours (8-12 times per 24 hours).

Breastfeeding means allowing the baby to suck the mother's breast as a source of food. United Nations Children Fund (UNICEF) (2014) noted that breastfeeding is veritably important because babies who are breastfed are generally healthier and achieve optimal growth and development compared to those who are fed with formula milk. Therefore, for the optimal health of babies, they may require to be exclusively breastfed. The World Health Organization (WHO) recommends exclusive breastfeeding (EBF) to six months of age (WHO, 2009). During this six month period, no other liquid, semi solid or solid food or breastfeeding substitute should be given to the infants

except for medicine and or oral rehydration solution, or drops and syrups of vitamins, minerals or medicines. This implies that the only things which can be given to the baby in addition to the breast milk are prescribed medicines, immunizations, vitamins and minerals supplements. Children who are not breastfed exclusively for six months have a higher risk of gastrointestinal infections, respiratory illness, morbidity and death (IP, Chung, Roman, Trikalinos, & Lau, 2009) as well as atopic eczema, allergy, asthma, type II diabetes, leukaemia, and obesity in later life than exclusively breastfed infants.

In spite of the immense benefits of EBF, a great number of babies may still not receive it. Du-Plessis (2009) reported that not more than 35 per cent of infants worldwide are exclusively breastfed during their first four to six months of life. This implies that up to 65 per cent of infants worldwide are not exclusively breastfed. Setegn et al. (2012) disclosed that, of the 60 per cent of under-five mortality caused by malnutrition (directly or indirectly), more than two-thirds are associated with inappropriate breastfeeding practices during infancy. The author added that sub-optimal breastfeeding (especially non-exclusive breastfeeding in the first six months of life) results in 1.4 million deaths and 10 per cent of diseases in under-fives. World Health Organization (2001) revealed that non-exclusive breastfeeding has long term impact, including poor school performance, reduced productivity, and impaired intellectual and social development.

Exclusive breastfeeding has been consistently reported to have immense benefit to the mother and her child. To the mother, Medela (2014) reported that from 3 months to 12 months postpartum, breastfeeding increases the rate of weight loss in most nursing mothers and offers some protection against the early return of fertility. By this, EBF becomes a means of checking obesity and birth control tool. Major infant benefits include: decreased risk of childhood infections, reduced postnatal mortality rates, decreased sudden infant death syndrome rates, lowered probabilities of developing diabetes (Gouveri, Papanas, Hatzitolios, & Maltezos, 2011), improved cognitive and motor development among others. Maternal breastfeeding benefits include: lower risk of developing breast and ovarian cancers (Gartner et al., 2005), adequate weight recovery and lactational amenorrhea which could be a natural birth control.

Exclusive breastfeeding can also increase the risk of dying due to diarrhoea and pneumonia among 0–5 months old infants by more than two-fold (WHO, 2009). According to National Centre for Biotechnology Information (NCBTI) (2014), the risk of hospitalization for lower respiratory tract disease in the first year of life is more than 25 per cent higher among babies who are formula fed than in those who are exclusively breastfed at least four months. These justify its regular practice. In this study, practice refers to a regular act of exclusively breastfeeding the babies in their first six months of life by their mothers. The practice of EBF may be inhibited by some factors. However, inhibitors or constraints to EBF practice refer to those factors, circumstances, conditions or reasons which hinder lactating mothers from practising EBF. A number of constraints have been consistently implicated to wield enormous limitation on the practice of EBF by lactating mothers.

A number of international studies have identified several socio-demographic determinants of EBF, which as well could be constraints to EBF practice. Some of the most common factors found to be associated with EBF are the economic status of family; education of mother; occupation of mother; utilization of antenatal care services; maternal health status; place of residence and access to information (Senarath, Dibley, & Agho, 2010; Tank, 2011; Agho, Dibley, Odiase, & Ogbonmwan, 2011).

Maternal poor health status appears to limit the practice of EBF. According to Farrukh, Basheer, and Jalil (2013), mothers with breast pathology such as sore nipples, mastitis, breast engorgement or anomalies such as inverted nipples find it difficult to successfully practice EBF. It is only ideal for a lactating mother to feed her child when her health condition does not cause harm to either the mother or the baby. Apart from the mother's health, her occupation can be a constraint to adoption of EBF.

The mother's work has been named as one of the main reasons for less than ideal breastfeeding practices. Mascarenhas, Albernez, Silva and Silveira (2006) reported that low family income and mothers returning to work interrupt the practice of EBF. This implies that even when mothers (civil servant) are given their maternity leave, the leave will not be sufficient to allow them complete the exclusive breastfeeding because they would soon resume their duties. Setegn et al. (2012) emphasized that employed mothers were less likely to practise exclusive breastfeeding, implying the need for extension of maternity leave and creating an enabling environment for exclusive breastfeeding. Tampah-Naah and Kumi-Kyerem (2013) argued that unemployed mothers were about 5 times more likely to breastfeed exclusively as compared to employed mothers. From the foregoing submissions, it is apparently clear that when mothers are employed, they have limited opportunity to exclusively breastfeed their babies.

Mother's age and level of education have been consistently reported as constraints to practice of EBF. Mothers with less education tend to introduce other foods earlier, in contrast to mothers who have higher education level (Park et al., 2003). This may be related to increased access of information and recognition of the benefits of exclusive breastfeeding for mothers with higher education. Motee, Ramasawmy, Pugo-Gunsam, and Jeewon (2013) submitted that type of delivery, parity, alcohol consumption, occupation, education, and breast problems

are found to influence infant feeding practices. Tampah-Naah and Kumi-Kyerem (2013) outlined mother's location, age, marital status, education, mode of delivery, antenatal visits, place of delivery, infant's size at birth, and infant's sex as socio-demographic variables that influence practice of EBF. This study focused on maternal health status, poor nutrition, occupation, conflicting positions from significant others, age, and level of education as they impinge on the practice of EBF. These constraints appear to be common among lactating mothers in Omala LGA of Kogi State. Without doubt, EBF practice of lactating mothers is recognized as the best feeding option for infants because of its nutritive, protective, psychological and economic values. Studying inhibiting risk factors that determine the duration of EBF would serve as the basis for designing and implementing effective programmes targeting individuals, families and communities at increased risk for suboptimal feeding behaviours. In addition, it would evaluate the success of ongoing programmes and of various other activities promoting breastfeeding.

Exclusive breastfeeding strengthens the physical and emotional bond between mothers and their children. In addition to this, EBF has been identified as a strategy for solving two main socio-demographic problems in Nigeria, namely high rate of infant mortality, and high population growth. Irrespective of a number of health benefits accruable from the practice of EBF, studies have shown that the practice among lactating mothers is still very low. However, the duration of EBF appears to remain unsatisfactory in both developing and developed countries. National Demographic and Health Survey in 2008 reported that the rate of EBF for 6 months is still very low in Nigeria and has been reported to be 13 per cent (Federal Ministry of Health, 2010). This has led to the increased child morbidity and mortality as seen in Omala, Kogi State. Several studies have been carried out on EBF, but there is virtually no published study that has investigated Constraints to EBF practice in Omala LGA of Kogi State. However, little is known regarding constraints to practicing EBF among lactating mothers in the area. In view of these facts, the study aimed at examining the constraints to EBF practice among lactating mothers in Omala LGA, Kogi State.

Objectives of the Study

The purpose of the study was to find out the constraints to exclusive breastfeeding practice among lactating mothers in Omala LGA of Kogi State. Specifically, the study determined:

1. various constraints to exclusive breastfeeding practice among lactating mothers;
2. various constraints to exclusive breastfeeding practice among lactating mothers based on level of education; and
3. various constraints to exclusive breastfeeding practice among lactating mothers based on age.

Research Questions

The following research questions were posed to guide the study:

1. What are the various constraints to exclusive breastfeeding practice among lactating mothers?
2. What are the various constraints to exclusive breastfeeding practice among lactating mothers based on level of education?
3. What are the various constraints to exclusive breastfeeding practice among lactating mothers based on age?

Hypotheses

Two hypotheses guided the study, and were tested at .05 level of significance.

HO₁. There is no statistically significant difference in the various constraints to exclusive breastfeeding practice among lactating mothers based on mother's level of education.

HO₂. There is no statistically significant difference in the various constraints to exclusive breastfeeding practice among lactating mothers based on age.

Methods

This study adopted the descriptive survey research design. This design according to Nworgu (2006), describes characteristics of a population or phenomenon being studied by gathering information directly from them as they exist in their natural setting, and determines the relationship between specific events. The population for the study comprised 3,320 lactating mothers in health facilities in Omala LGA of Kogi State. The two-stage sampling procedure was employed to draw the sample for the study. The first stage involved purposive sampling of 14 Health Care facilities out of 33 in Omala LGA that are more functional in terms of being adequately equipped of both material and human resources. The second stage involved simple random sampling of twenty-three lactating mothers each from the 14 selected health facilities. This gave a total of three hundred and twenty-two (322) lactating mothers used for the study.

Researchers'-designed 7-item questionnaire served as the instrument for data collection. The questionnaire was validated by three experts from the Department of Human Kinetics and Health Education,

University of Nigeria, Nsukka. The reliability of the instrument was established using the split-half method, and a correlation coefficient of .82 was obtained with the Spearman's Brown correlation formula, which was adjudged reliable for embarking on the study. The instrument was administered and retrieved after completion by the researchers. Percentages were used to answer the research questions while chi-square (χ^2) statistic was used to test the null hypothesis at .05 level of significance. In determining the constraints to EBF practice, Okafor's (1997) criteria were utilized. By these criteria, below 20 per cent score of the respondents was considered very low proportion of constraints to EBF, a score of 20- 39 per cent was considered low proportion, a score of 40-59 per cent was considered moderate proportion, a score of 60-79 per cent was considered high proportion, and a score of 80 per cent or above was considered very high proportion.

Results

Table 1: Constraints to Exclusive Breastfeeding Practice among Lactating Mothers (n=322).

S/N	Agricultural activities	f	%	Decision
1	Maternal health problems (e.g. sores, diseases etc)	72	22.4	Low
2	Poor nutrition (e.g. insufficient milk and food)	81	25.0	Low
3	Maternal occupation (e.g. job hindrances)	198	61.5	High
4	Conflicting positions from significant others (e.g. cultural beliefs and family or friends' advice)	154	47.7	Moderate
5	Lactation problems (e.g. cracked nipples, breast abscess, mastitis)	125	38.9	Low
Overall percentage			39.1	Low

Data in Table 1 show that high proportion of lactating mothers (61.5%) reported maternal occupation such as job hindrances as constraint to their EBF practice while moderate proportion (47.7%) reported conflicting positions from significant others such as cultural beliefs and family or friends' advice as constraint to their EBF practice. The table further shows that low proportion of lactating mothers reported maternal health problems such as sores and diseases (22.4%), poor nutrition such as insufficient milk and food (25%), and lactation problems such as cracked nipples, breast abscess, and mastitis (38.9%) as constraints to their EBF practice.

Table 2: Constraints to Exclusive Breastfeeding Practice among Lactating Mothers Based on Level of Education (n = 322).

S/N	Constraints to EBF	NFE(n =98)	PE(n = 66)	SE(n =108)	TE (n = 50)
		f(%)	f(%)	f(%)	f(%)
1.	Maternal health problems (e.g. sores, diseases etc)	66(67.3)	45(68.2)	100(92.6)	16(32)
2.	Poor nutrition (e.g. insufficient milk and food)	41(41.8)	59(89.4)	81(75)	34(68)
3.	Maternal occupation (e.g. job hindrances)	32(32.7)	51(77.3)	93(86.1)	36(72)
4.	Conflicting positions from significant others (e.g. cultural beliefs and family or friends' advice)	34(34.7)	30(45.5)	71(65.7)	40(80)
5.	Lactation problems (e.g. cracked nipples, breast abscess, mastitis)	46(46.9)	33(50)	42(38.9)	22(44)
Overall percentage		44.7	66.1	71.7	59.2

Key: NFE = Non Formal Education; PE= Primary Education, SE= Secondary Education, TE= Tertiary Education

Data in Table 2 show that overall percentage of responses affirmed that high proportion of lactating mothers with secondary education (71.7%), and primary education (66.1%); moderate proportion with tertiary education (59.2%), and No Formal education (44.7%) indicated that the various constraints to EBF interrupt their EBF practice. The table also shows that lactating mothers with secondary education reported slightly higher proportion of constraints to EBF practice than those with primary education, tertiary education, and no formal education (SE = 71.7% > PE = 66.1% > TE = 59.2% > NFE = 44.7%) respectively.

Data in Table 3 show that overall percentage of responses affirmed that high proportion of lactating mothers aged 15 – 30years (75.9%) indicated that the various constraints to EBF interrupt their EBF practice while moderate proportion aged 45years or above (57.3%) and 31-44years (52.4%) indicated that the various constraints to EBF interrupt their EBF practice. The table also shows that lactating mothers aged 15-30 years reported higher proportion of constraints to EBF practice more than those aged 45 years or above, and 31-44 years (15-30yrs = 75.9% > 45yrs or above = 57.3% > 31-44yrs = 52.4%) respectively.

Table 3: Constraints to EBF Practice Among Lactating Mothers Based on Age (n = 322).

S/n	Constraints to EBF	15-30 yrs (n=107)			31 – 44 yrs (n=118)			45yrs + (n=97)		
		f	%	D	f	%	D	f	%	D
1.	Maternal health problems (e.g. sores, diseases etc)	75	63.6	VH	96	81.4	VH	44	45.4	M
2.	Poor nutrition	93	86.9	VH	83	70.3	H	51	52.6	M
3.	Maternal occupation (e.g. job hindrances)	81	75.7	H	51	43.2	M	36	37.1	L
4.	Conflicting positions from the significant others (e.g. cultural beliefs)	98	91.6	VH	49	41.5	M	82	84.5	VH
5.	Lactation problems (e.g. cracked nipples, breast abscess, mastitis)	66	61.7	H	30	25.4	L	65	67.0	H
	Overall percentage		75.9	H		52.4	M		57.3	M

Key: M = Moderate; VH = Very High; H = High; L = Low; VL = Very Low; D = Decision

Table 4: Summary of Ch-square (X²) Analysis of no Significance Difference in Constraints to EBF Practice among Lactating Mothers Based on Level of Education.

Constraints	Categories of education																X ^{2-cal}	Df	X ^{2-crit}
	NFE (n=98)				PE (n=66)				SE (n=108)				TE (n=50)						
	Yes		No		Yes		No		Yes		No		Yes		No				
	O	E	O	E	O	E	O	E	O	E	O	E	O	E	O	E			
MHP	66	(69.1)	3	(28.9)	45	(46.5)	21	(19.5)	100	(76.1)	8	(31.9)	16	(35.2)	34	(14.8)	61.43	3	7.815*
PL	41	(65.4)	5	(32.6)	59	(44.1)	7	(21.9)	81	(72.1)	27	(35.9)	34	(33.4)	16	(16.6)	45.87	3	7.815*
MO	32	(64.5)	6	(33.5)	51	(43.5)	15	(22.5)	93	(71.1)	15	(36.9)	36	(32.9)	14	(17.1)	71.31	3	7.815*
CP	34	(53.3)	6	(44.7)	30	(35.9)	36	(30.1)	71	(58.7)	37	(49.3)	40	(27.2)	10	(22.8)	36.30	3	7.815*
LP	46	(43.5)	5	(54.5)	33	(29.3)	33	(36.7)	42	(48.0)	66	(60.0)	22	(22.2)	28	(27.8)	2.452	3	7.815*
Cluster x²																	43.47	3	7.815*

Key: *Significant, **Not significant, O = Observed frequency, E = Expected frequency. MHP=Maternal Health Problem, PL Poor Lactation, MO=Maternal Occupation, CP=Conflicting Positions, LP=Lactation Problems

Data in Table 4 show the cluster calculated chi-square (x²) value with its corresponding table value for hypothesis of no significant difference in the constraints to EBF practice among lactating mothers based on level of education (x^{2-cal} = 43.47 > x^{2-crit} = 7.815). Since the calculated x² value was greater than the table x² value, the null hypothesis of no significant difference was therefore rejected. This implies that significant difference existed in the responses of lactating mothers on various constraints to EBF practice based on level of education.

Table 5: Summary of Ch-square (X²) Analysis of no Significance Difference in Constraints to EBF Practice Among Lactating Mothers Based on Age.

Constraints	Categories of age												X ^{2-cal}	Df	X ^{2-crit}
	15-30yrs (n=107)				31-44yrs (n=118)				45yrs or above (n=97)						
	Yes		No		Yes		No		Yes		No				
	O	E	O	E	O	E	O	E	O	E	O	E			
MHP	75	(71.4)	32	(35.6)	96	(78.8)	22	(39.2)	44	(64.8)	53	(32.2)	31.96	2	5.991*
PL	93	(75.4)	14	(31.6)	83	(83.2)	35	(34.8)	51	(68.4)	46	(28.6)	28.93	2	5.991*
MO	81	(55.8)	26	(51.2)	51	(61.6)	67	(56.4)	36	(50.6)	61	(46.4)	36.40	2	5.991*
CP	98	(76.1)	9	(30.9)	49	(83.9)	69	(34.1)	82	(68.9)	15	(28.0)	80.55	2	5.991*
LP	66	(53.5)	41	(53.5)	30	(59.0)	88	(59.1)	65	(48.5)	32	(48.5)	45.57	2	5.991*
Cluster x²													44.68	2	5.991*

Data in Table 5 show the cluster calculated chi-square (x²) value with its corresponding table value for hypothesis of no significant difference in the constraints to EBF practice among lactating mothers based on age (x^{2-cal} = 44.68 > x^{2-crit} = 5.991). Since the calculated x² value was greater than the table x² value, the null hypothesis of no significant difference was therefore rejected. This implies that significant difference existed in the responses of lactating mothers on various constraints to EBF practice based on age.

Discussion of Findings

The finding of the study in Table 1 show that high proportion of lactating mothers (61.5%) reported maternal occupation such as job hindrances as constraint to their EBF practice while moderate proportion (47.7%) reported conflicting positions from significant others such as cultural beliefs and family or friends' advice as

constraint to their EBF practice. The table further shows that low proportion of lactating mothers reported maternal health problems such as sores and diseases (22.4%), poor nutrition such as insufficient milk and food (25%), and lactation problems such as cracked nipples, breast abscess, and mastitis (38.9%) as constraints to their EBF practice. These findings were expected and therefore were not surprising because if a mother is unhealthy, she may be unlikely willing to breastfeed her child. The first reason might be to avoid infecting the baby with the ailment through suckling. The second reason could be because maternal occupation and economic status have been consistently reported to be associated with the practice of EBF; and when mothers are employed, they tend to have limited time to practice EBF. Other reasons could be because conflicting positions from people such as mothers-in-law versus mother's own mother; friends' opinions; relatives' suggestions; tradition versus orthodox medicine suggestions; and most importantly, husband's stance appear to put a mother into confusion. Each of these key persons wants his or her opinion or suggestion to supersede the others or that of the lactating mother.

The findings on maternal health problems and lactation problems as constraints to EBF practice were in line with the assertion of Farrukh et al. (2013) who asserted that mothers with breast pathology such as sore nipples, mastitis, breast engorgement or anomalies like inverted nipples find it difficult to successfully practise EBF. It is only ideal for a lactating mother to feed her child when her health condition does not cause harm to either the mother or the baby. The finding on maternal occupation constraint to EBF practice conforms to the finding of Mascarenhas et al. (2006) who reported that low family income and mothers returning to work interrupt the practice of EBF. This implies that even when mothers (civil servants) are given their maternity leave, the leave will not be sufficient to allow them complete the exclusive breastfeeding, because they would soon resume their duties. It was also in line with the assertion of Setegn et al. (2012) who emphasized that employed mothers were less likely to practise exclusive breastfeeding, implying the need for extension of maternity leave and creating an enabling environment for exclusive breastfeeding. The finding on conflicting positions from the significant others constraints to EBF practice was in line with the finding of Lee, Durham, Booth, and Sychareun (2013) who reported that traditional beliefs and advice from health staff and the first-time mothers' own mothers, were important influences on breastfeeding practices. These findings may be useful to WHO and UNICEF in evaluating EBF programme so far and then institute strategies for improvement. The government may strengthen her poverty reduction programme and enlarge her Free Maternal and Child Services to include supporting lactating mothers with food items with which to augment that of their respective families. By this, lactating mothers will be assured of proper nutrition.

The finding of the study in Table 2 shows that lactating mothers with secondary education reported slightly higher proportion of constraints to EBF practice than those with primary education, tertiary education, and no formal education ($SE = 71.7\% > PE = 66.1\% > TE = 59.2\% > NFE = 44.7\%$) respectively. The summary of t-test analysis in Table 4 indicates that there was statistically significant difference in the constraints to EBF practice among lactating mothers based on level of education ($x^2_{cal} = 43.47 > x^2_{tab} = 7.815$). The findings were expected and therefore not surprising because Agho et al. (2011) submitted that EBF rates were significantly lower among mothers who had no education compared with those who had primary, secondary or higher education. The finding was in line with the finding of Park et al. (2003) who reported that mothers with less education tend to introduce other foods earlier, in contrast to mothers who have higher education level. This may be related to increased access of information and recognition of the benefits of exclusive breastfeeding for mothers with higher education. The finding also supported the submission of Motee et al. (2013) who submitted that type of delivery, parity, alcohol consumption, occupation, education, and breast problems are found to influence infant feeding practices. Those who are educated may have more knowledge of the benefits of EBF than their uneducated counterparts. Therefore, they are likely to practice EBF more than the uneducated ones because knowledge influences practice. The findings may help the curriculum planners to appropriately and compulsorily make the knowledge of EBF part of relevant subjects in all levels of education.

The finding of the study in Table 3 shows that lactating mothers aged 15-30 years reported higher proportion of constraints to EBF practice more than those aged 45 years or above, and 31-44 years (15-30yrs = 75.9% > 45yrs or above = 57.3% > 31-44yrs = 52.4%) respectively. The summary of chi-square analysis in Table 5 shows that there was statistically significant difference in the constraints to EBF practice among lactating mothers based on age ($x^2_{cal} = 44.68 > x^2_{tab} = 5.991$). The findings were expected and therefore not surprising because maternal age appears to have some degree of influence on practice of EBF. Mothers between the ages of 18-25 years appear to be fashion conscious and, therefore, frown to acceptance of EBF. The finding agrees with the finding of Perez-Escamilla et al. (1995) who reported that being ≥ 18 years is positively related to practice of EBF. The finding disagrees with the finding of Chudasama, Patel, and Kavishwar (2008) who reported that maternal age, which was considered as a potential factor affecting exclusive breastfeeding has not shown any significance. The finding also agrees with the assertion of Tampah-Naah and Kumi-Kyerem (2013) who outlined mother's location, age, marital status, education, mode of delivery, antenatal visits, place of delivery, infant's size

at birth, and infant's sex as socio-demographic variables that influence practice of EBF. The finding may trigger the health educators to appropriately plan their teaching of EBF to all mothers irrespective of age.

Implications for Protection against Infants' Reemerging Infections and Maternal Health Problems

The results of this study are indication that the practice of exclusive breastfeeding in Nigeria especially in the area of the study is unsatisfactory. Exclusive breastfeeding has a strong impact on the nutrition status of infants between 0 and 6 months of age as well as their risk for infectious diseases and mortality. However, children who are not exclusively breastfed for six months have a higher risk of gastrointestinal infections, respiratory illness, morbidity and death. Colostrum associated with EBF contains all the energy, protein, minerals and vitamins the infant needs, and protects the infant from dangerous ill-health and helps clear the bowel of the newborn. It provides avenue for referral of low birth weight (LBW) infants to appropriate health facilities for proper management by trained health professionals. Exclusive breastfeeding promotion provides opportunity for lactating mothers to obtain adequate energy intake and a diversified diet throughout their life cycle.

The unnecessary introduction of water and other fluids reduces intake of breast milk and energy, absorption of iron, and transfer of immune factors from breastfeeding and increases exposure to infectious agents. Exclusive breastfeeding and early initiation to the breast expels the placenta, reduces bleeding experienced after delivery, and reinforces emotional attachment of the mother to baby (promotes love and bonding between the mother and the newborn). It stimulates mothers' breast milk flow. In fact, frequent breastfeeding causes more milk to be produced. Besides, EBF can give a woman more than 98 per cent protection against pregnancy for six months after giving birth – but only if her menstrual periods have not resumed, if her baby breastfeeds frequently day and night, and if the baby is not given any other food or drinks. From 3 months to 12 months postpartum, breastfeeding increases the rate of weight loss in most nursing mothers and offers some protection against the early return of fertility. By this, EBF becomes a means of checking obesity and birth control tool (Medela, 2014). The WHO guidelines are backed up by a strong body of evidence indicating that optimal breastfeeding behaviours are strongly associated with lower incidence of gastrointestinal and respiratory tract infections as well as with child survival (Sankar et al., 2015). Furthermore, breastfeeding may protect children against otitis media (Bowatte et al., 2015), malocclusions (Peres et al., 2015), and has been consistently associated with improved cognitive development. Benefits to the mother include dental caries, prolonged lactational amenorrhea and a reduced risk of post-partum (pp) haemorrhage, ovarian and breast cancer, and type 2 diabetes (Chowdhury et al., 2015).

Conclusions

The findings have shown that lactating mothers in Omala LGA of Kogi State indicate that a high proportion of lactating mothers reported maternal occupation; a moderate proportion of lactating mothers reported conflicting positions from significant others while low proportion reported maternal health and lactation problems and poor nutrition as constraints to EBF practice. Lactating mothers with secondary education reported slightly higher proportion of constraints to EBF practice than those with primary education, tertiary education, and no formal education respectively. Lactating mothers aged 15-30 years reported higher proportion of constraints to EBF practice more than those aged 45 years or above, and 31-44 years respectively. The null hypotheses were rejected for no significant differences in the constraints to EBF practice among lactating mothers based on level of education and age. These findings have shown that most lactating mothers do not effectively practice exclusive breastfeeding due to socio-demographic factors such as maternal health problem, poor nutrition, maternal occupation, conflicting positions from significant others, lactation problem, maternal age, level of education, parity among others.

Recommendations

Based on the findings, discussion and conclusions, the following recommendations were made:

1. Government, Non-Governmental organizations and other allied health professionals and social organization such as churches, mosques should carryout enlightenment campaign programmes that could correct the misconceptions and fallacies about EBF that constraint mothers from effectively adopting it.
2. Health educators and other health professionals should create awareness on benefits of exclusive breastfeeding and discourage the constraints. This can be achieved through giving of health talks during women's meeting in the village, among others.
3. Government should extend the period of maternity leave for nursing mothers to 4 months to enable them have time to exclusively breastfeed their newborn before returning to work since they are not allowed to go work with their babies.
4. Interventions that seek to increase EBF should be timely with an increased focus on mothers with infants four to six months of age and in those who are most at risk of early discontinuation of EBF due to certain reasons.

References

- Agho, K. E., Dibley, M. J., Odiase, J. I., & Ogbonmwan, S. M. (2011). Determinants of exclusive breastfeeding in Nigeria. *Bio Medical Central Pregnancy and Childbirth*, 11, 2. Retrieved from <http://www.biomedcentral.com/1471-2393/11/2>.
- Bowatte, G., Thai, R., Allen, K. J., Tan, D. J., Lacu, M., & Dai, X. (2015). Breastfeeding and childhood acute otitis media: a systematic review and meta-analysis. *Acta Paediatrica Supplementum*, 104 (467), 85-97.
- Chowdhury, R.M., Suiha, B., Sankar, M. J., Taneja, S., Bhandari, N., & Rollins, N. (2015). Breastfeeding and maternal health outcomes: a systematic review and meta-analysis. *Acta Paediatrica Supplementum*, 104 (467), 96-113.
- Chudasama, R., Patel, P., & Kavishwar, A. (2008). Breastfeeding initiation practice and factors affecting breastfeeding in South Gujarat region of India. *The Internet Journal of Family Practice*, 7, 2. Retrieved from <http://ispub.com/IJFP/7/2/3358>.
- Du-Plessis, D. (2009). Breastfeeding: Mothers and health practitioners, in the context of private medical care in Gauteng. *Journal of Interdiscipline Health Sciences*, 14 (2), 112-118.
- Farrukh, H., Basheer, F., & Jalil, J. (2013). *Factors causing exclusive breast feeding failure in a Parkistani urban population*. Retrieved from <http://www.pafmj.org/showdetails.php?id=714&t=o>.
- Federal Ministry of Health. (2010). *Guidelines on infant and young child feeding in Nigeria*. Abuja: Federal Ministry of Health Nutrition Division.
- Gartner, L. M., Marton, J., Lawrence, R. A., Naylor, A. J., O'Hare, D., & Schanler, R. J. (2005). Breastfeeding and the use of human milk. *Journal of Pediatrics*, 115 (3), 496-506.
- Gouveri, E., papanas, N., Hatzitolios, A. I., & Maltezos, E. (2011). Breastfeeding and diabetes. *Curr. Diabetes Rev.*, 7 (2), 135-42.
- Ip, S., Chung, M., Raman, G., Trikalinos, T. A., & Lau, J. A. (2009). A summary of the agency for healthcare research and quality's evidence report on breastfeeding in developed countries. *Breastfeed Medical Supplementum*, 1, 17-30.
- Lee, H. M. H., Durham, J., Booth, J., & Sychareun, V. (2013). A qualitative study on the breastfeeding experiences of first-time mothers in Vientiane, Lao People's Democratic Republic. *Bio Medical Central Pregnancy and Childbirth*, 13, 223. Retrieved from <http://www.biomedcentral.com/1471-2393/13/223>.
- Mascarenhas, M. L. W., Albernez, E. P., Silva, M. B. D., & Silveira, R. B. D. (2006). Prevalence of exclusive breastfeeding and its determinants in the first 3 months of life in South of Brazil. *Journal of Pediatrics*, 82, 289-294.
- Medela, B. (2014). *Benefits of breastfeeding*. Retrieved from <http://www.medelabreastfeeding.com/benefits-of-breastfeeding>.
- Medindia (2014). *Importance of breast feeding*. Retrieved from <http://www.medindia.net/patients/patientinfo/breastfeeding-importance.htm>.
- Motee, A., Ramasawmy, D., Pugo-Gunsam, P., & Jeewon, R. (2013). *An assessment of the breastfeeding practices and infant feeding pattern among mothers in Mauritius*. Retrieved from <http://www.hindawi.com/journals/jnme/2013/243852/>.
- National Centre for Biotechnology Information-NCBI. (2014). *The Importance of breastfeeding*. Retrieved from <http://www.ncbi.nlm.nih.gov/books/NBK52687/>.
- Nworgu, B. G. (2006). *Educational research: Basic issues and methodology (2nd ed.)*. Nsukka, Enugu: University Trust Publishers.
- Okafor, R. U. (1997). Sexual knowledge and sources of sexual information on secondary school students in Anambra State. *Journal of Nigerian Health and Movement Education*, 1 (1), 9-19.
- Park, Y. K., Meier, E. R., & Song, W. O. (2003). Characteristics of teenage mothers and predictors of breastfeeding initiation in the Michigan WIC Program in 1995: Women, infants and children. *Journal of Hum Lact*, 19 (1), 50-6.
- Peres, K. G., Cascaes, A. M., Nascimento, G. G., & Victoria, C. G. (2015). Effect of breastfeeding on malocclusions: a systematic review and meta-analysis. *Acta Paediatrica Supplementum*, 104 (467), 54-61.
- Perez-Escamilla, R., Lutter, C., Segall, A. M., Rivera, A., Trevino-Sillern, S., & Sanghvi, T. (1995). Exclusive breast-feeding duration is associated with attitudinal, socioeconomic and biocultural determinants in three Latin American countries. *Journal of Nutrition*, 125, 2972-2984.
- Ramachandran, P. (2004). Breastfeeding practices in South Asia. *Indian Journal of Medical Research*, 119, 13-15.
- Sankar, M. J., Sinha, B., Chowdhury, R., Bhandari, N., Taneja, S., & Martines, J. (2015). Optimal breastfeeding practices and infant and child mortality: a systematic review and meta-analysis. *Acta Paediatrica Supplementum*, 104 (467), 3-13.

- Senarath, U., Dibley, M. J., & Agho, K. E. (2010). Factors associated with nonexclusive breastfeeding in 5 east and southeast Asian countries: a multilevel analysis. *Journal of Hum Lact*, 26 (3), 248-57.
- Setegn, T., Belachew, T., Gerbaba, M., Deribe, K., Deribew, A., & Biadgilign, S. (2012). *Factors associated with exclusive breastfeeding practices among mothers in Goba district, South-East Ethiopia: A cross-sectional study*. Retrieved from <http://www.internationalbreastfeedingjournal.com/content/7/1/17>.
- Tampah-Naah, A. M., & Kumi-Kyerem, A. (2013). *Determinants of exclusive breastfeeding among mothers in Ghana: A cross-sectional study*. Retrieved from <http://www.internationalbreastfeedingjournal.com/content/8/1/13>.
- Tank, K. L. (2011). Factors associated with exclusive breastfeeding among infants under six months of age in Peninsular Malaysia. *International Breastfeed Journal*, 6, 2.
- UNICEF. (2014). *Facts for life: Why is breastfeeding important*. Retrieved from http://www.unicef.org/mozambique/media_9256.html.
- WHO. (2001). *The optimal duration of exclusive breastfeeding: Report of an expert consultation*. Geneva: World Health Organization, Department of Nutrition for Health and Development and Department of Child and Adolescent Health and Development.
- WHO. (2009). *Infant and young child feeding (IYCF) Model Chapter for textbooks for medical students and allied health professionals*. Geneva Switzerland: WHO.