



BREAST FEEDING PRACTICES AND DETERMINANTS OF EXCLUSIVE BREAST FEEDING IN A CROSS-SECTIONAL STUDY AT ABOH MBAISE GENERAL HOSPITAL IMO STATE, NIGERIA

BY

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Abstract

Exclusive breastfeeding (EBF) is defined as exclusive intake of breast milk by an infant from its mother or wet nurse or expressed milk with addition of no other liquid or solid with the exception of drops or syrups consisting of vitamins, minerals supplements, or medicine and nothing else for the first six months. Knowledge of exclusive breastfeeding (EBF) among women is essential when promoting optimal breastfeeding practices. This cross-sectional survey assessed knowledge, breast feeding practice, EBF and its associated factors during pregnancy among women in General hospital Aboh Mbaise Imo State, Nigeria. About 82 (37.3%) of the participants were within the age bracket 25-29, followed by 58 (26.4%) within 30-34 years. According to the educational qualifications of the participants, majority 118 (53.6%) had senior secondary school certificate, followed by those that attended university 44 (20%). There was a universal awareness (100%) of exclusive breastfeeding (EBF), and about 195 (88.6%) correctly indicated that EBF entails feeding an infant with only breast milk. Furthermore, most of the mothers 179 (81.4%) were aware that EBF should span over a period

of 6 months, and correctly indicated that initiation of breastfeeding should be within the first hour after delivery 132 (60%). This study found factors such as mother's age and educational status to be associated with exclusive breastfeeding among mothers. The practice of exclusive breastfeeding among infants less than six months old in the previous 24 h and complementary feeding among infants aged 6–8 months were suboptimal. Interventions emphasizing practical education should therefore be targeted at addressing factors that influence exclusive breastfeeding

Key words: Breast feeding, practices, determinants, cross sectional, Aboh Mbaise Imo State, Nigeria

Introduction

Exclusive breastfeeding (EBF) is defined as exclusive intake of breast milk by an infant from its mother or wet nurse or expressed milk with addition of no other liquid or solid with the exception of drops or syrups consisting of vitamins, minerals supplements, or medicine and nothing else for the first six months (World Health Organization, 2016). Despite the awareness being created by various governments and non-governmental organizations on benefits of EBF, its practice remains lower than the globally recommended standard especially in developing countries (Adeyinka, Ajibola, Oyesoji & Adedeji, 2008).

Optimal breastfeeding practice decreases child death and contribute significantly to the long term health of children (WHO, 2016). In 2016, a Lancet series estimated that 823,000 deaths of children under five years could be prevented every year through optimal breastfeeding practices. Optimal breastfeeding practices reduce hospitalization among children from diarrhoea, respiratory infections, and otitis media illnesses (Victora, Bahl, Barros, França, Horton, Krasevec, Murch, Sankar, Walker, Rollins, 2016).

Breast milk is considered as the most complete nutritional source for infants because it contains the essential fats, carbohydrates, proteins, and immunological factors needed for infants to thrive and resist infection in the formative first year of life (Pound & Unger, 2012). Based on this, the World Health Organization (WHO) recommends exclusive breastfeeding

for the first six months of life and continuation of breastfeeding and adequate complementary foods for up to two years of age or beyond (Pound & Unger, 2012).

In view of the benefits of breastfeeding, starting breastfeeding in the first hour of delivery, exclusive breastfeeding (EBF) for the first 6 months of life and continued breastfeeding together with suitable complementary foods for up to 2 years or beyond are recommended as the best infant feeding plan for optimal growth, development and health (WHO, 2016). Yet just about half of the 80% of neonates who are given breast milk worldwide initiated breastfeeding in the first hour of birth, and late initiation of breastfeeding is still a challenge in developing countries (Victora, Bahl, Barros, França, Horton, Krasevec, Murch, Sankar, Walker, Rollins, 2016).

The rates of continued breastfeeding also appear to be declining among poor mothers. Exclusive breastfeeding is reportedly low in many countries (Dibley, Roy, Senarath, Patel, Tiwari, Agho & Mihrshahi, 2010). Globally, just 38% of infants less than 6 months are exclusively breastfed. The trend of exclusive breastfeeding among infants less than 6 months in developing countries has taken over a decade to increase from 33% in 1995 to 39% in 2010 (Cai, Wardlaw & Brown, 2012).

There are many factors identified to influence breastfeeding practices in both developing and developed countries are socio-demographic factors (Shifraw, Worku & Berhane, 2015). Findings from a number of studies have emphasized maternal education and in the study by Vieria and colleagues, mothers who had an education for 8 years or less were at 34% higher risk of stopping exclusive breastfeeding. A study in Nigeria has found that mothers who visited the antenatal clinics were positively associated with EBF and mothers who resided in rural areas were less likely to practice exclusive breastfeeding (Agho, Dibley, Odiase & Ogbonmwan, 2011).

Seid, Yesuf & Koye, (2013) have reported in Ethiopia that being a housewife, having prenatal EBF plan, giving birth vaginally and receiving infant feeding counselling was associated with the practice of exclusive breastfeeding. Findings from another study in Ethiopia observed that mothers with less income status are positively associated with practice of exclusive breastfeeding (Shifraw, Worku & Berhane, 2015). Mothers who are unemployed are also positively associated with the practice of exclusive breastfeeding. Furthermore, mothers living in their own homes and the place of delivery have also been documented to predict the practice of exclusive breastfeeding (Aidam, Perez-Escamilla, Lartey, Aidam, 2005).

In Ghana, a study has highlighted that mothers who delivered at the government hospitals were at a higher odd of practicing exclusive breastfeeding (Aidam, Perez-Escamilla, Lartey, Aidam, 2005). Child factors such as the age and sex of child have also been indicated to predict the practice of exclusive breastfeeding. In Nigeria, Agho and colleagues have reported that female infants are more likely to be exclusively breastfed than their male counterparts and also infants aged less than 2 months are more likely to be exclusively breastfed (Agho, Dibley, Odiase & Ogbonmwan, 2011).

There are numerous benefits of breastfeeding to both mothers and infants, yet the levels of breastfeeding practices particularly in developing countries including Nigeria continue to be suboptimal. Therefore, understanding the breastfeeding practices and the factors that predict them is important in designing and carrying out successful interventions. This study aimed at determining the breastfeeding practices and to examine the socio-demographic factors associated with exclusive breastfeeding among mothers attending child welfare clinic at General Hospital Aboh Mbaise Imo State, Nigeria.

MATERIALS AND METHOD

Study Design

A cross-sectional study was conducted at Aboh Mbaise General Hospital Imo State, Nigeria.

Study Population

The study participants were pregnant women who visited Aboh Mbaise General Hospital Imo State, Nigeria, for antenatal care. Those who were pregnant and fulfilled the inclusion criteria were enrolled in the study. Each participant was recruited only once on their first visit during the study period.

Instrument Administration

Four (4) research assistants were recruited and used for data collection exercise after 30-45 minutes discussion of objectives of the study, contents of the instrument, selection of participants, and how to administer the questionnaire and interpretation of the questions in the instrument (where needed). Objectivity and confidentiality on information gathered were emphasized. Data collection was between 9.00am and 12.00pm on Mondays which was their antenatal day. The data collection exercise lasted for four months.

Data Processing /Analysis

The data were entered, cleaned, and analysed with the SPSS statistical software version 25 (IBM Corp., Armonk, NY, USA). Summary statistics such as frequencies and percentages were computed. A 95% confidence interval (CI) and a p -value of <0.05 were considered statistically significant. Data collected on demographic characteristics were analysed descriptively using frequencies and percentages.

Ethical Approval

Ethical clearance for the study was obtained from the Ethics and Research Committee of Abia State University Uturu. Administrative permit was also obtained from the administrators and medical officers' in charge while signed informed consent was obtained from the participants.



RESULTS

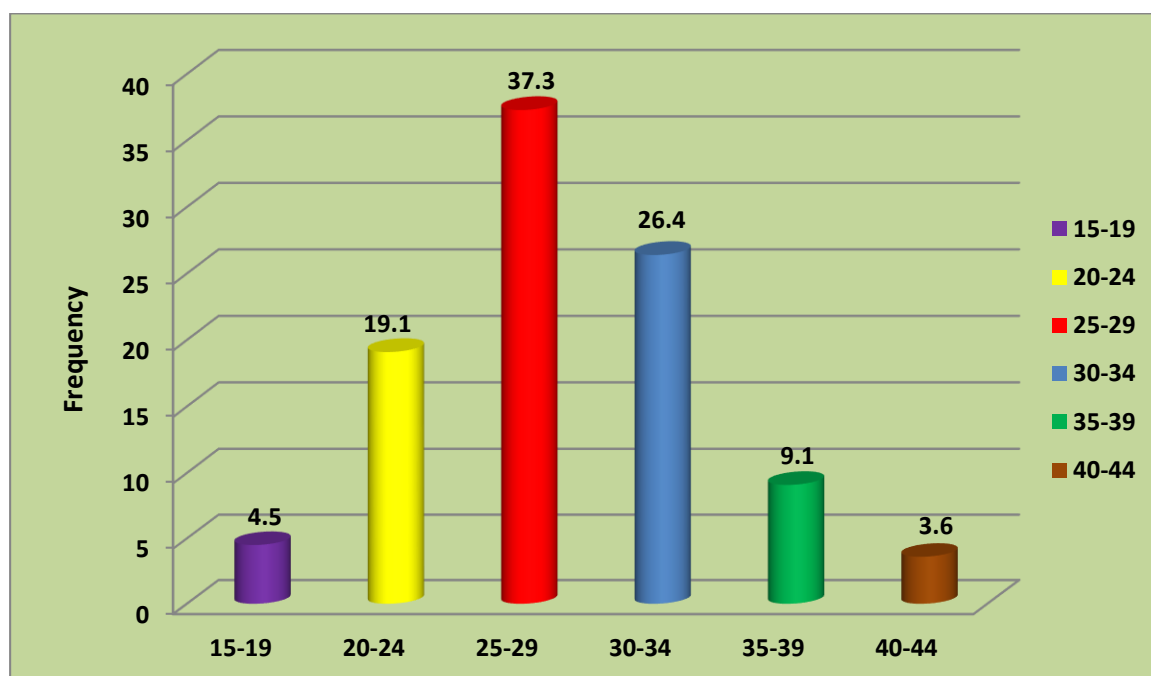


Figure 1: Age range of respondents

Table 1: Socio-demographic Data of Participants ($n = 220$)

Variables	Frequency ($n=220$)	Percentage
Age of mothers		
15-19	10	4.5%

20-24	42	19.1%
25-29	82	37.3%
30-34	58	26.4%
35-39	20	9.1%
40-44	8	3.6%

Marital status

Married	174	79.1%
Single	40	18.2%
Divorced	6	2.7%

Educational qualification

Illiterate	28	12.7%
Primary	30	13.6%
Secondary	118	53.6%
Tertiary	44	20%

Religion

Christianity	214	97.3%
Muslim	2	0.9%
Traditionalist	4	1.8%

Occupation

Informal employee	158	71.8%
Formal employee	62	28.2%

Sex of baby

Male	56	25.5%
Female	164	74.5%

Age of last baby (in months)

0-5	126	57.3%
6-10	68	30.9%
11-15	17	7.7%
16-20	6	2.7%
21 and above	3	1.4%

Place of delivery

Health facility	202	91.8%
At home	18	8.2%

Type of delivery

Normal/vaginal	162	73.6%
Caesarean section	58	26.4%

Monthly Income

Below 50.000 monthly	158	71.8%
Above 50.000 monthly	62	28.2%

Among the 220 women who participated in the research, 82 (37.3%) of the participants were within the age bracket 25-29, followed by 58 (26.4%) within 30-34 years. Those within the age bracket 20-24 were 42 (19.1%), 35-39 were 20 (9.1%), and 15-19 were 10 (4.5%) while those within 40-44 were the least 8 (3.6%). Most of the participants 174 (79.1%) were married followed by those single 40 (18.2%) while the divorced were few 6 (2.7%). According to the educational qualifications of the participants, majority 118 (53.6%) had senior secondary school certificate, followed by those that attended university 44 (20%). Those with primary certificate were 30 (13.6%) while illiterates were 28 (12.7%). Majority 214 (97.3%) of participants were Christians, followed by traditionalist 4 (1.8%) and Muslims were 2 (0.9%). A lot 151 (71.8%) of the participants were not employed while 62 (28.2%) were employed. A high proportion of mothers had female babies 164 (74.5%) while 56 (25.5%) had boys. Approximately 91.8% of all the mothers delivered at the health facility and the proportion of normal/vaginal deliveries was high 162 (73.6%) (table1).

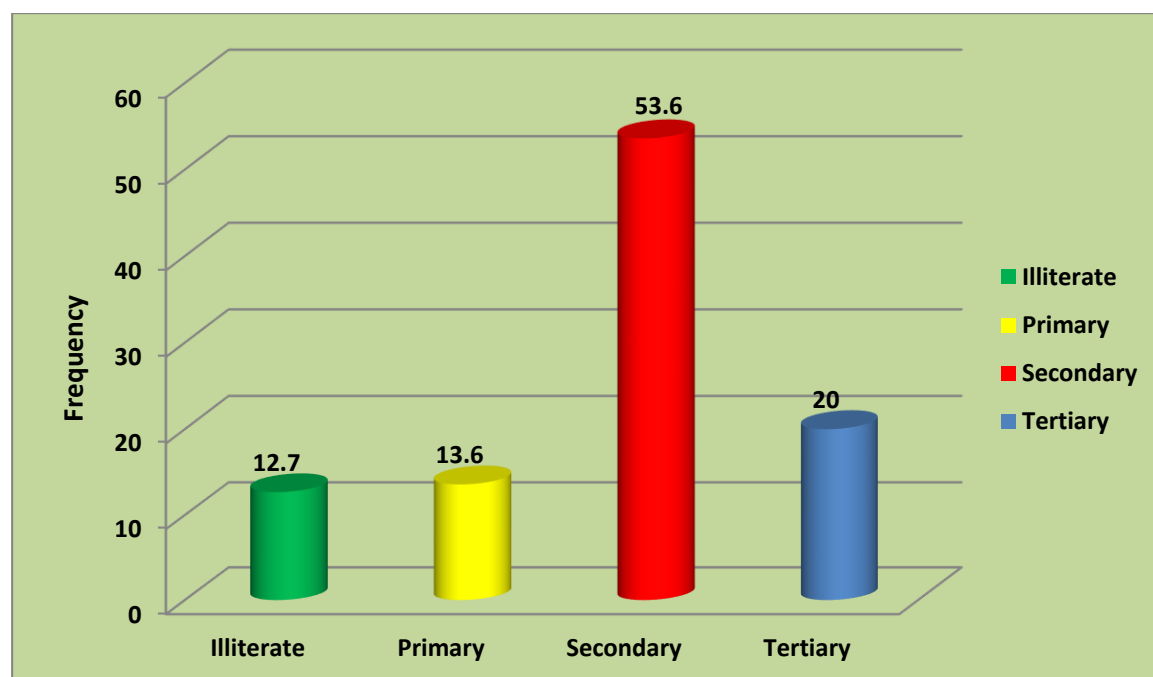


Figure 2: Educational Background of Respondents

Table 2: Maternal knowledge and Practices on Breastfeeding (*n* = 220)

Variables	Frequency (<i>n</i> =220)	Percentage
Ever heard of exclusive breastfeeding	220	100%
EBF entails feeding an infant with only breast milk	195	88.6%
When a mother should start breastfeeding after delivery		
Within the first hour	132	60%
Within 24 h	62	28.2%
Don't know	26	11.8%
Period for exclusive breastfeeding		
One month	4	1.8%
Two months	6	2.7%
Three months	8	3.6%
Four months	16	7.3%
Five months	7	3.2%
Six months	179	81.4%

Age at which baby should be given water

One month	4	1.8%
Two months	20	9.1%
Three months	28	12.7%
Four months	12	5.5%
Five months	6	2.7%
Six months	150	68.2%

Age at which baby should be given liquid/solid foods

One month	2	0.9%
Two months	4	1.8%
Three months	14	6.4%
Four months	22	10%
Five months	6	2.7%
Six months and above	172	78.2%

Source of information on breastfeeding

Health facility	196	89.1%
Own mothers	18	8.2%
Other relatives	6	2.7%

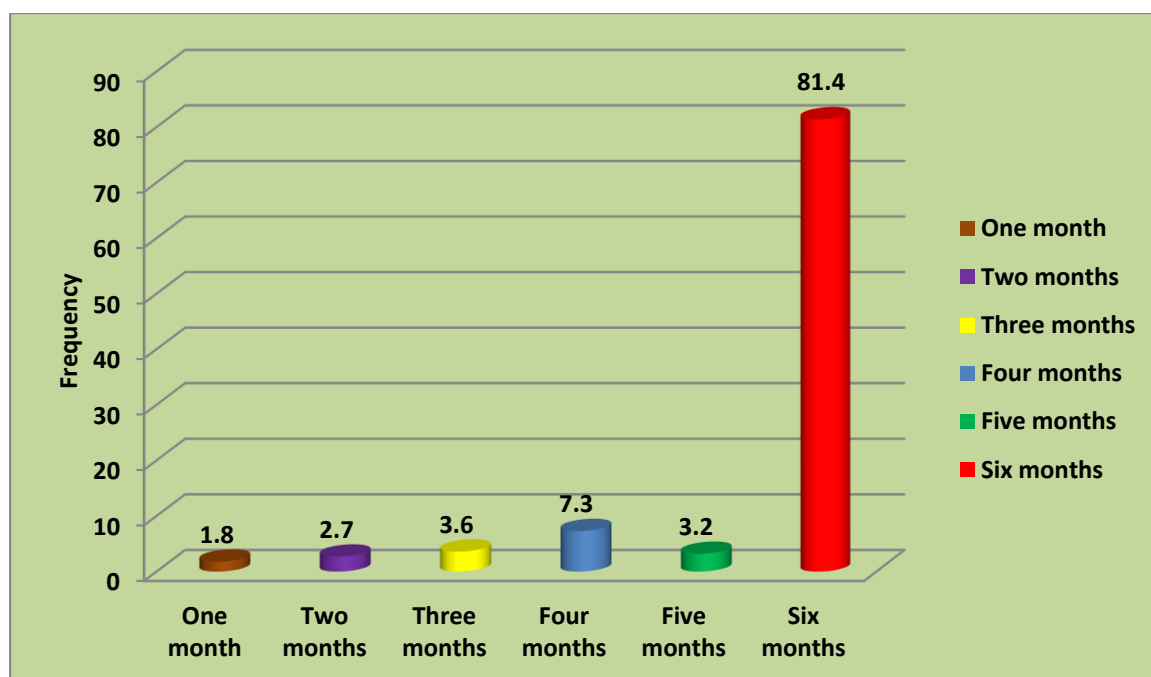


Figure 3: Period for Exclusive Breastfeeding

There was a universal awareness (100%) of exclusive breastfeeding (EBF), and about 195 (88.6%) correctly indicated that EBF entails feeding an infant with only breast milk. Furthermore, most of the mothers 179 (81.4%) were aware that EBF should span over a period of 6 months, and correctly indicated that initiation of breastfeeding should be within the first hour after delivery 132 (60%). Most of the mothers indicated that water 150(68.2%) and complementary feed (liquid/solid foods) 172 (88.2%) should be given to babies when they are 6 months old. A high proportion of the mothers 196 (89.1%) identified the health facility as their source of information on breastfeeding (Table 2).

Table 3: Breastfeeding Practices among Mothers

Feeding practices	Frequency	Percentage
Currently breastfeeding	164	74.5%
Early initiation of breastfeeding	162	73.6%
Offer colostrum to baby after delivery	170	77.3%

Exclusive breastfeeding under 6 months	142	64.5%
Time complementary feeding	70	31.8%
Continuous breastfeeding at 1 year	168	76.4%
Bottle feeding	64	29.1%

According to the presents breastfeeding practices among mothers, 164 (74.5%) of the mothers were currently breastfeeding their children. More than half of all mothers 162 (73.6%) started breastfeeding within the first hour after delivery, and about 170 (77.3%). Of all mothers 170 (77.3%) offered colostrum to babies after delivery. Exclusive breastfeeding rate under 6 months was 142 (64.5%) and the continuous breastfeeding rate at 1 year was 168 (76.4%). Only 70 (31.8%) of the infants aged 6–8 months were introduced to complementary feeding and among infants less than 24 months receiving any solid food or liquid, less than half 64 (29.1%) were fed from a bottle (95% CI 25.1%, 35.1%) (Table 3).

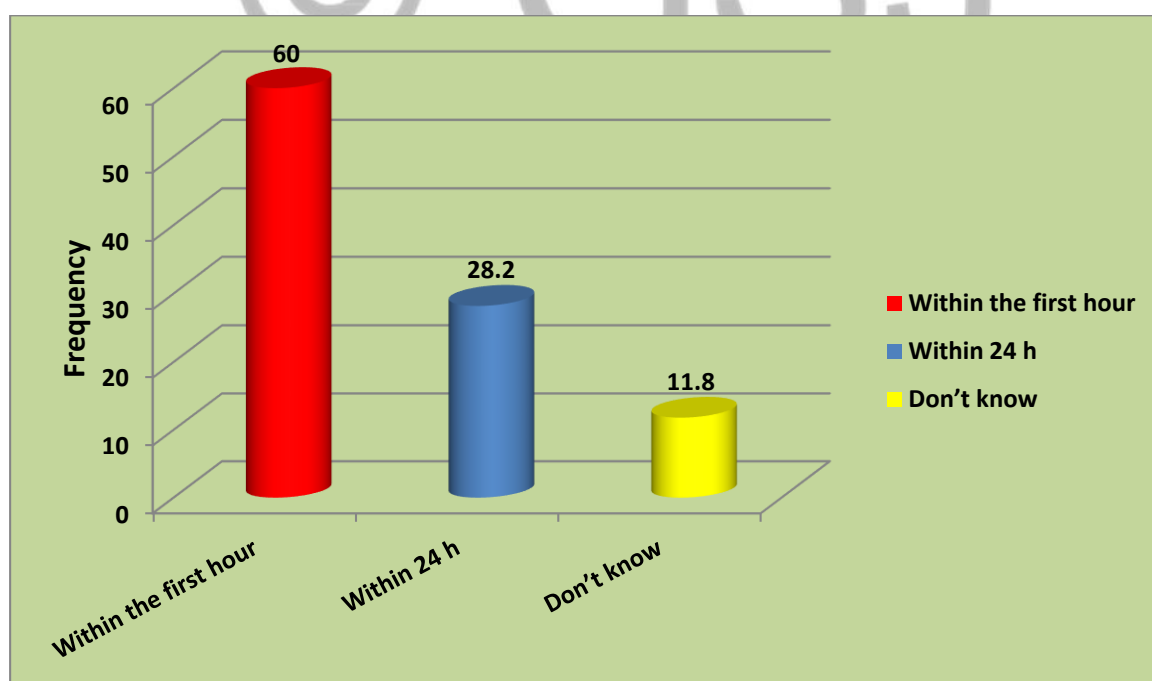


Figure 4: Knowledge of Mothers on the Time to start Breastfeeding after Delivery



There was a universal awareness about exclusive breast feeding in this research and majority of mothers were fully knowledgeable about exclusive breastfeeding. Similar high awareness and knowledge on EBF has also been reported in Nigeria where 95.3% of mothers had heard about EBF and 82.0% of them correctly defined exclusive breastfeeding (Onah, Osuarah, Ebenebe, Ezechukwu, Ekwochi, & Ndukwu, 2014). In contrast, a similar study in Nigeria has reported low knowledge about EBF where only 30% ($n = 179$) of the mothers were adequately informed (Oche, Umar & Ahmed, 2011). The high level seen in our study could be due to the effectiveness of the health education and awareness programmes run by the Ministry of Health and Nigerian Health Service, and their partners on exclusive breastfeeding.

This study also found an early initiation of breastfeeding rate of 60% similar to other published study where 57.0% of mothers started breastfeeding within the first hour after birth (Ulak, Chandyo, Mellander, Shrestha, Strand, 2012). This is higher than what has been documented by other studies in Ghana (Fosu-Brefo & Arthur, 2015), in Ethiopia and in India where timely initiation breastfeeding rates were 39.9%, 52.4% and 23.5% respectively (Setegn, Gerbaba & Belachew, 2011). However, the study found that about 81% of all mothers fed their babies with the first breast milk (colostrum). This is supported by other studies reporting 91.0% in Nepal and 83.3% in Ethiopia (Ulak, Chandyo, Mellander, Shrestha & Strand, 2012). The high rates recorded in our current study could be as a result of the fact that most of the mothers delivered at the health facility, where mothers are encouraged by health personnel to breastfeed just after delivery.

This study found factors such as mother's age and educational status to be associated with exclusive breastfeeding among mothers. The odds of exclusive breastfeeding were high when mothers were older than 20 years. A similar finding has also been reported by Asemahagn, (2016) where mothers aged 30 years and above were more likely to engage in exclusive breastfeeding. This could be explained as argued by Asemahagn, (2016) that mothers gain experience in child management as they increase in age, and in the quest of younger mothers to maintain their breast size and beauty (Asemahagn, 2016).

This finding agrees with the studies of Qureshi, Oche, Sadiq & Kabiru, (2011) that reported on the influence of mothers' educational level on their decision to exclusively breastfeed. Mothers who had no formal education were more unlikely to practice exclusive breastfeeding than their peers with higher education as mothers with no education tend not to be well informed about the benefits of exclusive breastfeeding compared to their counterparts with higher education (Qurfeshi, Oche, Sadiq & Kabiru 2011). In addition, exclusive breast

feeding knowledge and sources of information about exclusive breastfeeding were found to be significant predictors of good intention to practise exclusive breast feeding.

This finding is in line with studies by Agho, Dibley, Odiase & Ogbonmwan, (2011), and Qureshi, Oche, Sadiq & Kabiru, (2011) that reported that mothers who accessed antenatal care services during pregnancy were more likely to practice exclusive breastfeeding as appropriate key messages were usually delivered during antenatal care services. The low educational background of most of the mothers in our study could explain the lower rate of timely complementary feeding. This suggests the need for an intense education on the importance of complementary feeding among mothers.

This study found that majority (71.8%) of the participants were not employed earn less than 50.000 every month and majority (74.5%) of their children were females. This corresponds to another study in Ethiopia which observed that mothers with less income status are positively associated with practice of exclusive breast feeding. Mothers who are unemployed are also positively associated with the practice of exclusive breastfeeding (Setegn, Belachew, Gerbaba, Debribe, Deribew, Biadgilign, 2012). Furthermore, mothers living in their own homes and the place of delivery have also been documented to predict the practice of exclusive breastfeeding. In Ghana, a study has highlighted that mothers who delivered at the government hospitals were at a higher odd of practicing exclusive breastfeeding (Tampah-Naah, Kumi-Kyereme, 2013). Child factors such as the age and sex of child have also been indicated to predict the practice of exclusive breastfeeding (Setegn, Belachew, Gerbaba, Debribe, Deribew, Biadgilign, 2012). In Nigeria, Agho, Dibley, Odiase & Ogbonmwan, (2011), have reported that female infants are more likely to be exclusively breastfed than their male counterparts and also infants aged less than 2 months are more likely to be exclusively breastfed (Agho, Dibley, Odiase & Ogbonmwan, 2011).

The rate of Bottle feeding among infants less than 24 months was 29.1%. This was higher than what has been reported elsewhere (14.8%) (Patel, Badhoniya, Khadse, Senarath, Agho & Dible, 2010). As found by Petal et al. where high bottle feeding was found among urban and wealthier mothers, the high rate of bottle feeding reported in the current study could be explained by the fact that the study was done in a peri-urban community with characteristics similar or close to urban counterparts (Patel, Badhoniya, Khadse, Senarath, Agho & Dible, 2010). These current findings suggest the need for an intense campaign on the importance of timely, adequate and safe complementary feeding and interventions necessary to bring down the high rates of bottle feeding among mothers

The high level knowledge on exclusive breast feeding seen in our study could be due to the effectiveness of the health education and awareness programmes run by the Ministry of Health and Health Service and their partners on exclusive breastfeeding. In relation to accessing help and information on breastfeeding, this current study found that mothers tend to go to the health facilities and rely on midwives/nurses for information on breastfeeding. This result is in agreement with the findings of another study in Ghana where all the mothers received information on breastfeeding from health professionals on their visit to health facilities (Danso, 2014). These finding should not be generalized in the South-Eastern region of Nigeria but could be considered indicative of the context considered.

Recommendation

Interventions emphasizing practical education should therefore be targeted at addressing factors that influence exclusive breastfeeding.

Conclusion

Mothers were adequately informed about exclusive breastfeeding. The practice of exclusive breastfeeding among infants less than six months old in the previous 24 h and complementary feeding among infants aged 6–8 months were suboptimal. Exclusive breastfeeding among mothers was influenced by mother's age and educational status.

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