Original Research Article

ASSESSMENT OF THE NUTRITIONAL KNOWLEDGE AND PRACTICE OF MOTHERS ON EXCLUSIVE BREASTFEEDING IN DOHINAYILI COMMUNITY, NORTHERN REGION, GHANA

ABSTRACT

Background: The prevalence of exclusive breastfeeding for the first six months of life has remained low worldwide and in Ghana, despite strong evidence in support of its practice. The practice of exclusive breastfeeding is influenced by maternal knowledge and attitudes as well as socio-demographic and cultural factors.
Purpose: This study was aimed at assessing the knowledge and practice of exclusive breastfeeding among mothers in the Tamale metropolis of Ghana.
Methodology: This cross-sectional study was conducted among 200 community lactating mothers with infants aged 0–24 months in the Dohinayili community in the Tamale metropolis of Ghana. All data was collected using a questionnaire that contained both closed and open-ended questions. The simple random sampling was used to recruit participants into the study.
Key findings: Despite the generally high knowledge of exclusive breast feeding, the mothers did not exclusively breast feed their babies. These mothers did not practice EBF because they misunderstood certain signs of the child to mean wanting to eat food or drinking water, regarded breast milk to be inadequate to meet the nutritional needs of the child and misunderstood healthcare professionals' EBF advice.
Recommendations: Beyond dissemination of health messages, healthcare professionals should pay more counselling attention to less educated mothers, and also older children's caregivers.

Key Words: *Exclusive breastfeeding, Infants, Lactating mothers, Rural, Ghana*.

BACKGROUND

One of the most effective strategies for reducing infant morbidity and mortality in resource limited settings (i.e. human and infrastructural constraints) is the promotion of exclusive breastfeeding (EBF) for the first 6 months of the infant's life (Mogre et al., 2016). In the last decade there has been a growing interest in exclusive breastfeeding as the appropriate feeding method for infants all over the world (Afaya et al., 2017). "Breastfeeding is the cornerstone for an infant's survival, nutrition and development" (World Health Organisation [WHO], 2015). Early initiation of breastfeeding and exclusive breastfeeding help in child survival, it accounts for healthy brain development, promotes cognitive and sensory performance and is noted for enhancing intelligence and academic performance in children (Isaacs et al. 2010, AAP 2012, UNICEF 2015). Breast milk has the essential nutrients that a newborn need to grow healthy and strong. Infants who are exclusively breastfed develop fewer infections; have less severe illnesses and mothers who practice EBF enjoy the benefit of extended lactation amenorrhea (Nukpezah, Nuvor, & Ninnoni, 2018).

Globally, the exclusive breastfeeding rate is 38%, however the World Health Assembly in 2012 set a target to increase the rate of exclusive breastfeeding by at least 50% by 2025. Exclusive breastfeeding among children less than six months in Ghana is 52.3% (Boateng, 2018).

In low income and developing countries, due to poor sanitation conditions, high disease burden and limitedness in the availability of clean drinking water, it is more necessary to practice exclusive breastfeeding in the initial stages in life (first six months of the child's life). This practice of exclusive breastfeeding is more safe, hygienic and the most economical way of providing food for the newborn (UNICEF 2013). It has been reported in several studies on breastfeeding that proper practice of breastfeeding can save about 800,000 infant lives in the developing world alone (UNICEF 2015, WHO 2016). In spite of these recommendations, it has been documented over the years that the practice of exclusive

breastfeeding has not been adopted universally, most mothers embrace the idea but fail to breast feed exclusively few weeks after giving birth to their baby. A lot of factors ranging from cultural, social and economic conditions have been identified as possible hindrances to an effective practice of exclusive breastfeeding (Tampah-Naah & Kumi-Kyereme 2013, Fosu-Brefo & Arthur 2015).

The Ghana Demographic and Health Survey (GDHS) in 2014 estimated that about 98% of children in Ghana are breastfed at some point in their life. The median duration of EBF is about four months and 73% of breastfed children are given complementary food by age 6 to 9 months (Ghana Statistical Service (GSS), Ghana Health Service (GHS), & ICF International., 2015). Despite the health benefits of EBF and efforts to promote exclusive breastfeeding around the world, the percentage of children who are exclusively breastfed have decreased in Ghana by 17% between 2008 and 2014 (Ghana Statistical Service (GSS), Ghana Health Service (GHS), & ICF International, 2015).

The risk of conditions such as, breast and ovarian cancer is lessened among mothers who adequately practice EBF (WHO, 2009). World health organization indicated that EBF protective effect is not limited to the lactation period; it persists for years even after termination of breastfeeding. The benefits of EBF are bigger in settings of poverty, poor nutrition and poor hygiene, where baseline disease rates are higher. This is because giving babies other feds before six months is often associated with errors of contamination during the preparation and administration process. These errors can further lead to diarrheal diseases like cholera and dysentery which can culminate in childhood mortality (WHO, 2009).

According to the World Health Organisation (2009), with EBF coverage of 90%, about 13% of deaths of children less than 5 years could be averted in low and middle-income countries. This assertion is in line with other researchers who opined that initiation of breastfeeding within the first hour of birth may lead to the prevention of about 20% of neonatal deaths

(Neovita, 2016) in low-income/middle-income countries. And optimal breastfeeding has the potential of preventing 12% of all under-5 deaths (Black et al., 2012). Children who are exclusively breast fed have been shown to be less susceptible to childhood diseases and are 14 times more likely to endure ill-health compared with those who are not breastfed (Black et al., 2012). .

Childhood mortality is high in low and middle-income countries where EBF prevalence is low. In Ghana for instance, the recorded rate of infant mortality is 53 per 1, 000 live births while mortality rate of children younger than 5 years is 31 per 1000 live births and these death ratios is partly due to inadequate EBF practice of mothers (Tawiah-Agyemang et al., 2008). Other studies undertaken in Ghana also concluded that neonatal deaths could be prevented if all infants start breastfeeding within the first hour of birth (GSS, 2011). Some of the interventions and policies introduced in Ghana to help encourage EBF practice are infant and young child feeding (IYCF) program, convention on the rights of the child and baby friendly Hospital initiative (Jones et al., 2003). Despite the enactment of these policies, the rate of EBF in Ghana is still lower than the WHO's set goal of 90% for EBF. A report from Ghana multiple indicator cluster surveys showed that EBF in Ghana dropped drastically from 63.7% in 2008 to 46% in 2011 (GSS, 2011). More specifically, the rate of EBF in Tamale was 63.3%. In effect, the rate of EBF is low globally (39%), with 36% occurring in low-income countries (WHO, 2009). Several factors have been identified as impediments to proper nutrition and infant feeding habits. Substantial among them are, the perceptions surrounding infants feeding practices and inadequate information and support on good feeding practices, especially EBF for the first six months of life (Tawiah-Agyemang et al., 2008). However, from the literature reviewed at the start of this study, it seem evident there is limited on on the related factors associated with the knowledge and practice of EBF in the Tamale metropolis and no study had coved a vast majority of EBF among lactating mothers in the Dohinayili community of the Tamale metropolis. Therefore, this study aimed at assessing the knowledge and practice of EBF among mothers in the Dohinayili community in the northern of Ghana.

METHODS

Study Design: The study design was a descriptive cross-sectional design and employed quantitative methods to gather information.

Study Population: All mothers residing in the Dohinayili community will constitute the target population for this study. The total population of women in the community is estimated at 1125.

Setting: The study will be conducted at the Dohinayili community located in the Tamale Metropolis. Tamale is the Northern Regional Capital and one of the six metropolitans in Ghana and the only metropolitan in the Northern Part of the country. Tamale is a cosmopolitan city and is among the fastest growing cities in West Africa and thus made the city the ideal place for the study. The Tamale Metropolis has a total population of 371, 351 (Ghana Statistical Service, 2014) and is inhabited by people from both urban and rural backgrounds. The community is an urban community inhabited by natives (dagombas) and people from other tribes.

Inclusion Criteria: Women of child bearing age who were currently breastfeeding at the time of the study or who had stopped breastfeeding not later than 1 years.

Exclusion Criteria: mothers who have never breastfed or are temporary visitors to the town , mothers of infants having any serious illness including congenital deformities, mothers who

are having psychological illness, mother who had certain disease conditions with contraindications to breastfeeding e.g.AIDS, Breast cancer.

Sampling: The simple random sampling was used to recruit respondents based on the inclusion and exclusion criteria.

Sample Size Determination: The total population of women in the Dohinayili community is estimated at 1125. The sample size for the survey was computed according to the formula for sample size determination by Yamane (1967).

$$n = \frac{N}{1+Ne^2}$$

Where ***n*** is required sample size.

N is the total population size which is 1125.

e is acceptable sampling error (0.05) at 95% Confidence Interval

By substitution:

$$n = \frac{1125}{1+1125(0.05)^2} \quad n = 295$$

Hence, the sample size for the study = **295** respondents.

Using an estimated population of 1125 women a sample size of 295 respondents will be needed for this study. In order to reduce inaccurate results and make up for non-responsiveness, the sample size will be rounded off to 324 respondents. Therefore, a total of 324 patients were invited into the study.

Data collection instrument: A questionnaire consisting of both closed and open-ended questions was used to collect all data on socio-demographic factors (maternal age, infant's age, parity, as well as maternal educational level, and marital, occupational and religious statuses), knowledge on exclusive breastfeeding (EBF), attitude towards EBF, and practice of EBF. The open-ended questions were included to gain understanding of why mothers gave a specific answer. Items for the knowledge, attitude and practice of EBF scales of the questionnaire were adapted from the Food and Agriculture Organization of the United Nations (FAO) guidelines for assessing nutrition-related knowledge, attitudes and practices (KAP) manual. This manual contains guidelines that serve as a reference guide and practical tools for undertaking high quality evaluation of nutrition and health related knowledge and practices at the community level [29]. This manual has 13 module questionnaires capturing data on important knowledge, attitudes and practices related to 13 most common nutrition issues such as feeding infants (0–6 months), feeding young children (6–23 months), diet of school-aged children and among others. Based on the aims and objectives of this study, the questionnaire pertaining to feeding infants younger than 6 months was adapted for this study. The FAO questionnaire has been field tested in several countries to ensure validity, readability, ease of administration and is less burdensome on respondents.

The knowledge scale of the questionnaire consisted of 13 questions assessing mothers' understanding and intellectual capacity to recall the benefits of EBF, duration of EBF, and how to improve breast milk supply. Each correct response was accorded a point and no point for each wrong response. A knowledge score was generated for each mother based on the number of correctly answered questions. The practice scale consisted of six items that assessed mothers' practice of EBF relating to the following: recall of EBF in the last 24 h, mode of breastfeeding, who gave and what kind of food was given to the baby in the mothers' absence, introduction of liquids (i.e. plain water, infant formula, tinned milk,

powdered or fresh animal milk, juice/juice drinks, clear broth, yogurt, porridge, herbal teas, solid/marshy foods). The mothers' answers to these questions were used to determine the practice of EBF. The form and nature of these items were provided by the United Nations Children's Fund (UNICEF) Multiple Indicator Cluster Surveys and the Demographic and Health Surveys.

Data collection procedure: After ethical approval is obtained, the principal investigators will visit the community for the purposes of data collection. During the process of data collection, the aims and objectives and procedures of the study will be explained and informed consent will be obtained from respondents. All patients who volunteer to be involved in the study will be screened for their eligibility. Consent forms will be signed after both formal and verbal explanations are provided, subsequently, questionnaires were handed over to respondents. The questionnaires will be self-administered to respondents who can read and write in English. Those who cannot read nor write in English will be assisted to answer the questions. The principal investigators will translate the questions into their respective local dialects. They will be informed that participation is voluntary and they are free to withdraw from the data collection process at any time without any consequence to them. Completing the questionnaire on average will take about 10-15 minutes.

Data Management: In accordance with the FAO guidelines, practice of EBF preceded the knowledge and attitude test. For purposes of content validity and appropriateness for the local context, items of the questionnaire were reviewed by a team of nutrition experts. This resulted in the addition of local foods commonly given to infants in the study setting. The questionnaire was pretested on a sample of 10 mothers with infants aged 0–24 months for purposes of comprehension, readability and easiness of administration.

Data Processing and Analysis: Data analysis was carried out with the aid of IBM Statistical Package for the Social Sciences (SPSS) version 25 for Windows and one-way analysis of variance (ANOVA) reported using, tables and prose. The process for the data analysis included; data coding, sorting, cleaning, editing and checking for errors and biases by doing a thorough counting of the study question items and frequency of occurrences, the grouping of collected data, checking for minimum and maximum counts and analysing and discussing of data. Both qualitative and quantitative data was collected and analysed accordingly. Responses for all the open-ended questions (qualitative data) were read and re-read by all the authors. The responses were coded by the second author and the results reviewed by RW and PKG. Common themes were identified through discussions and reflections. All quantitative data were analysed using descriptive statistics of mean for continuous variables, and frequencies and percentages for categorical variables. Cross tabulation and chi-square tests were used to determine univariate associations. To determine factors associated with the practice of EBF, a multivariate logistic regression was executed. The dependent variable of the logistic model was the practice of EBF. Only variables that were significantly associated to the practice of exclusive breastfeeding in the univariate analysis were included into the logistic regression model. Results are presented as odds ratios and their respective confidence intervals at 95 %. In all analysis a P-value of <0.05 was considered statistically significant.

Ethical Consideration: Ethical approval will be sought for the University for Development Studies/ Tamale Teaching Hospital Ethics Review Board. Permission will be sought from the community leaders. Written and verbal consent will be sought from participants. Respondents will be informed that participation is voluntary and they can withdraw from the study anytime with consequences to them. The privacy of each participant was assured by ensuring that their names were not included in the questionnaire (anonymity). Participants were also assured that where signatures appeared on the consent forms will be separated from the

questionnaire and will be kept under lock and key, and after two years of the study, the data will be discarded and no records of the data both electronically or hard copy will be available. The privacy of participants was ensured by interviewing only one respondent at a time and at a venue that was convenient to the respondent.

STUDY FINDINGS

As indicated in table 1.1, the results show that, a high percentage of the mothers involved in this study (72%) were aged between 21 to 30 years and only 1.5% were 30 years old or beyond. The mean age of the women was 27.27 ± 5.87. The majority of participants (61%) had no formal education, 15.5 % had tertiary education, 9% had senior high school education, and only 7% and 7.55 had junior high school and primary education respectively. Most of the women were self-employed (435) and a significant proportion had no employment (34%). A large proportion of the women in this study (84.4 %) were married; the other proportion is composed of widows, the divorced and single mothers. Most of the participants (80%) were Muslims. An overwhelming majority (98%) of participants ever heard about EBF. The main sources of information about EBF was from the hospital and friends.

Table 1.1: Socio-demographic characteristics

Variable		**Frequency (N=200)**	**Percent (%)**
Age			
Mean age ± SD		**27.27 ± 5.87**	
	< 20years	14	7
	21-30 years	144	72
	31-40 years	39	19.5
	41+ years	3	1.5

Educational status	Tertiary	31	15.5
	Senior high school	18	9.0
	Junior high school	14	7.0
	Primary school	15	7.5
	No formal education	122	61
Occupation	Private Sector employment	12	6.0
	Public Sector employment	34	17
	Self-employed	86	43
	No employment	68	34
Marital status	Single	10	5.0
	Married	116	58
	Divorced	30	15
	Widowed	44	22
Family Support	Yes	155	77.5
	No	45	22.5
Religion	Christian	40	20
	Muslim	160	80
Monthly income	<GHS 500	140	70
	GHS 500-1000	40	20
	GHS 1000-2000	10	5
	>GHS 3000	2	0.6
Ever heard about EBF	Yes	196	98
	No	4	2
Sources of information on EBF	Hospital	120	60
	TV/radio	20	10
	Friends	50	25

	Social media/internet	10	5
Sex of child	Male	80	40
	Female	120	60
Place of delivery	Hospital delivery	180	90
	Non hospital deliver	20	10
Age of child	0-6months	80	40.0
	6-24months	120	60

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254 **1.2 Knowledge of mothers on exclusive breastfeeding**

255 The mothers' knowledge in aspects of EBF is presented in Table 1.2. About 29 % of them
256 were unable to define EBF; most of them defined EBF as giving the child breast milk and
257 water and the others did not have an idea. Twenty four percent of the mothers said breast
258 milk only is not sufficient to meet the nutritional needs of the child. The reasons they offered
259 for holding this view were that the child may not be satisfied and could die if fed with only
260 breast milk for 6 months. Others also had the opinion that the child also feels thirsty and
261 should be given water to drink. The majority 91.5% of the mothers did not know that breast
262 milk could be expressed, stored safely and given to the child in times of the mother's
263 absence. Regarding how to overcome breastfeeding difficulties, 8.9 % of the mothers said
264 herbs/drugs could be taken to overcome the difficulty; 6.8 % said breastfeeding should be
265 stopped; 10% said breastfeeding should be continued and 4.2 % did not know what to do.

266 **Table 1.2 Knowledge of mothers on exclusive breastfeeding**

Variable	**Frequency (%)**
First food for the newborn is breast milk	193 (96.5)
Babies should take only breast milk for the first 6 months of their life	142 (71.0)
Breast milk only is sufficient for the baby's first 6 months of life	152 (76.0)

The baby should be breastfed on demand	152 (76.0)
Has knowledge on the benefits of exclusive breastfeeding to the baby	187 (93.5)
Breast milk supply can be sustained by having good nutrition/eating well	180 (90.0)
Exclusive breastfeeding is beneficial to the mother	173 (86.5)
Breast milk supply can be sustained by having good nutrition/eating well	160 (80.0)
In times of absence the baby can continue to be exclusively breastfed by expressing breast milk and storing	19 (9.5)
Health personnel can assists in overcoming breastfeeding difficulties	139 (69.5)
Knowledge category	
High (>70%)	91 (45.5)
Mean ± SD Knowledge score (maximum score = 20)	13.95 ± 2.83

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268 **1.3 Characteristics of mothers who do and do not practice EBF**

269 The characteristics of mothers who do and do not practice EBF are presented in Table 1.3
270 Mothers who practiced EBF were more likely to have high knowledge in EBF towards EBF
271 than their counterparts. Furthermore, they were more likely than their counterparts to report
272 having infants younger than 3 months and high level of education.

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275 **Table 1.3 Characteristics of mothers who do and do not practice EBF**

	Exclusive breastfeeds		
Variable	Yes	No	P-value
Age of mothers in years			
<30	45 (40.5 %)	27 (34.2 %)	0.230
≥30	66 (59.5 %)	52 (65.8 %)	

Child's age in months			
<3	64 (57.7 %)	6 (7.6 %)	<0.001
>3	47 (42.3 %)	73 (92.4 %)	
Employment status			
Employed	85 (76.6 %)	66 (83.5 %)	0.161
Unemployed	26 (23.4 %)	13 (16.5 %)	
Educational level			
Low educational level	34 (30.6 %)	40 (50.6 %)	0.004
High educational level	77 (69.4 %)	39 (49.4 %)	
Parity			
1	42 (37.8 %)	28 (35.4 %)	0.428
>1	69 (62.2 %)	51 (64.6 %)	
Marital status			
Not married	8 (7.2 %)	5 (6.3 %)	0.528
Married	103 (92.8 %)	74 (93.7 %)	
Religion			
Christian	60 (54.1 %)	44 (55.7 %)	0.221
Muslim	51 (45.9 %)	33 (41.8 %)	
Knowledge of EBF			
High	72 (64.9 %)	15 (19.0 %)	<0.001
Low	39 (35.1 %)	64 (81.0 %)	

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278 **1.4 Factors associated with practice of exclusive breastfeeding**

279 To identify factors associated with the practice of exclusive breastfeeding, a multivariable

280 logistic regression model was executed and the findings presented in Table 1.4 Having

infants younger than 3 months, high maternal educational level and a thorough knowledge in EBF remained significantly associated to the practice of EBF.

Table 1.4 Multivariate determinants of exclusive breastfeeding (n = 200)

Variable	B	AOR (95%CI)	P-value
Child younger than 3 months	2.49	12.02 (4.44, 32.54)	<0.001
High maternal level of education	1.24	3.47 (1.55, 7.75)	0.002
High level of maternal knowledge of EBF	1.77	5.87 (2.59, 13.26)	<0.001

DISCUSSION

Knowledge of Exclusive breastfeeding

In this study we assessed knowledge in, attitude towards EBF and its practice among community lactating mothers with infants aged 0–24 months. Factors associated with the practice of EBF in this sample were also evaluated. Similar to the earlier studies (Tampah-Naah & Kumi-Kyereme 2013, Mogre et al 2016), a greater number of mothers considered breastmilk as the best form of food and nutrition for infants, they agreed to the concept of six months exclusive breastfeeding of which most stated that they became aware of this information from their health care providers.

The mothers' knowledge of EBF was generally high, although some notable gaps were identified. However, the practice of EBF was found to be lower than desired. Factors that were found to be associated to the practice of EBF included maternal level of education, child's age and having high knowledge of EBF. Misconceptions relating to duration of EBF and the inadequacy of breastmilk to meet their child's nutritional needs were noted. Most mothers also had inadequate knowledge of the maternal benefits of exclusive breastfeeding. Similar misconceptions and inadequacies of knowledge have been reported previously (Apanga, 2014; Issaka et al., 2014). Emphasising on the maternal benefits of EBF could help encourage mothers to exclusively breastfeed their infants. An important finding of this study was that most mothers were more likely to consult relatives and significant others to overcome breastfeeding challenges instead of consulting healthcare providers. Although consulting relatives and significant others may not be inappropriate, the accuracy and quality of advice and support given may not be guaranteed making mothers prone to inappropriate advice and support. Postnatal visits to the health centre are opportunities that healthcare professionals could rely upon to encourage mothers to seek support in times of difficulties. Building on the current knowledge and the use of active teaching and learning strategies such as discussions, lectures, slides, and presentations could be adopted to bridge these gaps in knowledge.

The findings of this study showed that most mothers did know that breast milk can be stored for future use. Contrary to the result from the study by Boateng, (2018) on exclusive breastfeeding among rural lactating mothers, which showed that most mothers did not know that breastmilk could be stored and used in future; for convenience or to be used in the absence of the nursing mother. It became evident from the result of this research that quite a sizeable number of mothers knew breast milk can be stored for future use. The difference in study subjects and setting; rural verse urban dwellers might be the reason behind the

difference in results. If information on breast milk storage is communicated well enough to mothers especially working mothers and the work environment is made friendly enough to allow for breast milk storage, a private place to breastfeed or scheduled breaks to feed baby, the rate of exclusive breastfeeding among working mothers could be improved.

Practice of exclusive breastfeeding

Sixty two percent of the mothers practiced EBF. This is far higher than the 46 % of Ghanaian children aged less than 6 months being exclusively breastfed in 2011 (Ghana Statistical Service [GSS], 2011) but lower than the 64 % reported by Tampah-Naah & Kumi-Kyeremee (2013) using data from the 2008 Ghana Demographic and Health Survey (GDHS) (GDHS, 2008). The prevalence of EBF found in this study is far below the WHO recommended prevalence of 90 % (Jones et al., 2003) demonstrating a wide gap between the desired and the actual practice of exclusive breastfeeding. The low prevalence of exclusive breastfeeding could be attributed to misconceptions regarding the inadequacy of breast milk to meet the nutritional needs of the child, misunderstanding certain signs of the child to mean she/he is showing signs of wanting food to eat and misunderstanding healthcare professional's advice. Similar misconceptions have been reported previously in rural Ghana and in other West African countries (Aryeetey & Goh, 2013; Issaka et al., 2014; Apanga, 2014. Otoo et al., 2013). Education on exclusive breastfeeding is usually disseminated to mothers in the form of health talks by midwives, nurses or nutritionists during antenatal and postnatal clinic visits. As suggested by previous studies (Sadoh, Sadoh & Oniyelu, 2011; Abaasiati et al., 2014; Onah et al., 2014), the findings of this study calls for an evaluation of the content of such health talks and the mothers understanding of the messages provided to them as significant gaps in knowledge of exclusive breastfeeding

Factors associated with practice of exclusive breastfeeding

Mothers with higher level of education were more likely to report higher practice of exclusive breastfeeding than their counterparts. Maternal level of education has been found to be an important determinant of infant feeding practices in several studies in Ghana (Iddrisu, 2014; Aidam, Pérez-Escamilla & Larte, 2005). Mothers with higher levels of education may be able to comprehend and appreciate the benefits of EBF to their infants and more motivated to practice it (Onah et al., 2014). Suggestively, exclusive breastfeeding promotion programs should be made more appealing to mothers who have lower levels of education. For instance, healthcare providers could emphasis on the fact that exclusive breastfeeding is not only beneficial to the infant but also for the mother regarding delayed return of ovulation, reduction in the risk of developing breast cancer and protection against postpartum bleeding (Aidam, Pérez-Escamilla & Larte, 2005).

Another important determinant of the practice of exclusive breastfeeding was the age of the child. Significantly, mothers with babies younger than 3 months were more likely to practice exclusive breastfeeding compared to those having babies aged 3 months or older. Similar findings have been reported previously in Ghana and other parts of West Africa (Iddrisu, 2013; Otaigbe, Alikor & Nkanginieme, 2008). As the age of the child increases, mothers are more likely to begin to introduce other foods as they perceive that breast milk alone might not be sufficient to meet the nutritional needs of the child. These finding suggests that healthcare professionals should pay special attention to lactating mothers as the baby grows, by encouraging and supporting them to overcome barriers that may prevent them from exclusively breastfeeding. Given the fact that most mothers may return to work as the child grows older, and their lack of confidence to express and store breast milk, it is plausible that mothers may begin to introduce other foods to the child in order to have time to work and attend to other activities (Abasiatai, 2014). Misconceptions of mothers regarding expressing and storing breast milk should be identified and given attention in future EBF promotion

programs. Mothers' should be encouraged and supported to gain the appropriate knowledge and confidence to be able to express and store breast milk that could be used to feed the child while they were at work. Notwithstanding the above, we recommend that future studies should explore the contributing factors responsible for the decrease in the practice of exclusive breastfeeding as the baby grows older in this setting. Another factor that was found to be associated to the practice of exclusive breastfeeding was having knowledge of EBF. Mothers who had higher knowledge were more likely than their counterparts with low knowledge in EBF to report practicing it. Similar to our findings, studies that report high maternal knowledge on EBF also report high prevalence of the practice of exclusive breastfeeding (Sriram et al., 2013; Dhammika & Gunawardena, 2012; Utoo, Ochejele, Obulu & Utoo, 2012) and the reverse is true (Motee et al., 2013). Lack of knowledge of the benefits of breastfeeding has been reported to contribute to the low level of exclusive breastfeeding practice in Sub-Saharan Africa (Abasiattai et al., 2014).

In line with the work by Mohammed et al. (2014), mothers' age did not have much influence on the knowledge and practice of exclusive breastfeeding. Almost all mothers irrespective of their age at the time of giving birth were familiar with the concept, unlike the results from the study by Fosu-Brefo &Arthur 2015 which showed a significant relationship between maternal age and the knowledge in exclusive breastfeeding. Majority of mothers showed prominent level of understanding about the essence of breastfeeding an infant. For instance, its role in protecting an infant from diseases, an ideal source of nutrients, family planning methods and its health benefits on lactating mothers. They also acknowledged to the fact that breastfeeding promotes the relationship between mother and child. Even though majority of mothers explained how safe, convenient and economical it is to breastfeed a baby, not every mother was able to practice it (Oche et al. 2011).

CONCLUSION

The reflection of a child's general health condition is evident in his or her nutritional status (Benson & Shekar 2006). Quality diet minimizes diseases and increases growth. Exclusive breastfeeding is a well campaigned child feeding practice noted for child health and survival. This study presents data on mother's level of knowledge, attitude and practice of exclusive breastfeeding. This study results affirm a greater level of understanding about mothers' knowledge in the importance of exclusive breastfeeding. The general responses concerning breastfeeding were positive especially about knowledge in breastfeeding, its recommendation and benefits. The lactating mothers' knowledge of EBF were generally favourable. However, their practice of EBF was suboptimal. Mothers' misconceptions and misunderstanding of EBF messages may play an important role in determining the practice of EBF. Maternal knowledge, maternal level of education and age of the child may also be important in promoting the practice of EBF. Healthcare professionals should go beyond the mere dissemination of information to encouraging and helping mothers to overcome barriers of practicing EBF. Health advocates and health workers were identified as the main agents of information dissemination. This study acknowledges the support from health care providers.

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