doi: http://dxdoi.org/10.4314/jmbs.v7i1.1

ORIGINAL ARTICLE

Are nurses able to exclusively breastfeed their babies? A mixed methods study of conduciveness of the work environment of nurses to practice exclusive breastfeeding

Failatu Yahaya Iddi¹, Shamsu-Deen Ziblim^{1*} and Victor Mogre²

¹Department of Community Health and Family Medicine School of Medicine and Health Sciences, University for Development Studies, Tamale, Ghana; ²Department of Health Professions Education and Innovative Learning, School of Medicine and Health Sciences, University for Development Studies, Tamale, Ghana;

One of the factors that may influence the practice of EBF for working mothers is the conduciveness of the work environment. We investigated the conduciveness of the work environment for the practice of EBF among nurses with babies in the Tamale Metropolis. A questionnaire was administered to 130 nurses in five selected health facilities in the Tamale Metropolis. Also, focus group discussions were employed to explore nurses' perceptions concerning EBF at the workplace. About 66.0% of nurses exclusively breastfed their infants. Among nurses who did not exclusively breastfeed, 48.4% said their nature of work prevented them; 22.6% long distance between work and home and the rest blamed short maternity leave. Eighty-one percent were not allowed to bring their children to the workplace; 86.3% said the workplace had no breastfeeding rooms; and 46.0% said they were not given time to go breastfeed. In the qualitative data, lack of maternity leave, traditions and uncooperative superiors were some of the barriers to EBF. The practice of EBF was relatively high but below the WHO optimal breastfeeding rate of 90.0%. The length of maternity leave, breastfeeding rooms and breastfeeding friendly staff could play an important role in promoting EBF among nurses with babies.

Journal of Medical and Biomedical Sciences (2020) 7(1), 1 - 11

Keywords: Nurses, Exclusive Breastfeed, Work, Environment, Tamale Metropolis

INTRODUCTION

Breastfeeding is very essential to every newborn and its benefits to the infant are well documented (WHO, 2013). It provides infants with superior nutritional content that is capable of improving infant immunity and possible reduction in future health care spending (WHO/UNICEF, 2017).

Breastfeeding is considered an important measure to secure optimal health and survival for children (WHO, 2013). Breastfeeding provides multiple benefits to babies, ranging from general health to optimum growth and development (Horta, 2010). Infants who are not breastfed are more likely to have an increase in risk of developing acute and

Correspondence: Shamsu-Deen Ziblim, Department of Community Health and Family Medicine, University for Development Studies, P. O. Box TL 1883, Tamale, Ghana. Email: zshamsu72@gmail.com

chronic diseases such as: respiratory infection, bacteremia, bacterial meningitis, ear infections, botulism, necrotizing entero-colitis and urinary tract infection (Victora *et al.*, 2016).

It is well documented that breastfeeding is correlated with better motor and cognitive development in children while the risk or severity of depression, delinquent behaviour, attention issues and other psychological problems are reduced (Galson, 2008; WHO, 2013). No wonder the WHO and UNICEF recommend that all mothers should breastfeed their exclusively for the first 6 months and thereafter they should continue to breastfeed for as long as the mother and child desire, and both appropriate and sufficient weaning food should be included after six months of life (Adda, 2015; Peterset al., 2005; Fooet al., 2005). In Ghana, according to the Ghana demographic and health survey for 2014, an

Failatu et al.,

estimated 53.1% of children aged 2-3 months are being exclusively breastfed. By age 4 to 5 months only 36.2% continue to receive exclusive breastfeeding (EBF) and this situation appears to be deteriorating as available information shows that EBF has declined from 54.0% in 2006 to 52.0% in 2014 (GSS, GHS and ICF Macro, 2014). This is below the WHO/UNICEF optimal exclusive breastfeeding rate of 90.0% in infants aged 6 months or less (WHO, 2009).

The initiation and continuation of breastfeeding may be affected by a number of interwoven factors relating to health, psychosocial, cultural, political, and socio-economic levels (Agunbiade and Ogunleye, 2012; Cripe 2008; Schmeid and Barclay, 1999) and for low-income countries decisions regarding breastfeeding may also be influenced by education, employment, place of delivery, family pressure, and cultural values in low-income countries (Agunbiade & Ogunleye, 2012; Gartner *et al.*, 2005; Henry *et al.*, 2010; Otoo *et al.*, 2009).

Another important factor that may influence the practice of exclusive breastfeeding is the workplace environment as mothers will need to return to work after a period of maternity leave (which is usually less than 6 months). Working mothers will have to continue to breastfeed while attending to their productive roles in the workplace. Since family demands and work go parallel, these demands bring major influence on women's careers and their ability to exclusively breastfeed.

A study in Brazil reported that most women, who return to work or study after delivery, usually discontinue lactation, if they are not provided with the required support to do so by the organization (Ogido, 2014). There is evidence that mothers who have easy access to their babies during the workday, have longer breastfeeding duration than other mothers who may not have (Chatterji and Frick, 2005).

A number of challenges exist at the workplace that may disrupt a mother's breastfeeding plan at work. Some of these include lack of workplace breastfeeding facilities, lack of family support, mothers' inadequate knowledge about breastfeeding and feeling of embarrassment (Brown, 2014). Other challenges may include lack of privacy for breastfeeding, lack of places to store breast milk (refrigerator), limited paid maternity leave and fear over job security (Domenico and Karen, 2014).

The working environment of the hospital may present unique challenges that may affect the continued practice of exclusive breastfeeding among nurses with babies. In our search of the literature we only came across two studies that investigated the conduciveness of the hospital work environment for the practice of exclusive breastfeeding among health workers. In Nigeria, Sadoh et al., (2011) investigated the practice of exclusive breastfeeding among female medical doctors but did not consider other health workers such as nurses. In Accra, Ghana, Gladzah et al., (2013) evaluated the practice of exclusive breastfeeding among health workers in general. Thus, no study in Ghana has explored the conduciveness of the work environment for the practice of exclusive breastfeeding among nurses with babies. The current study intends to fill this gap in the literature. Specifically, we investigated the practice of exclusive breastfeeding and the conduciveness of the work environment for the practice of exclusive breastfeeding among nurses with babies in selected Hospitals of the Tamale Metropolis.

MATERIALS AND METHODS Study design and setting

This study followed a cross-sectional design and was conducted at five health facilities located in the Tamale Metropolis. The Metropolis has a total estimated land size of 750 km sq which is about 13.0% of the total land area of the Northern Region. Geographically, the Metropolis lies between latitude 9°161 and 9° 341 North and longitudes 0° 361 and 0° 571 west.

Study participants

The participants of this study were female nurses with babies working in the selected health facilities. Participants were included if they were nurses working in the hospital for more than 6 months and were had babies aged ≤ 6 months. Participants were excluded if they were not nurses; worked in the hospital for less than 6 months and were not lactating mothers or were lactating but had babies aged ≥ 6 months.

Sample size and sample size determination

A total sample size of 137 was recruited for the study. This was arrived at based on the following formula adapted from the WHO STEP-wise approach for chronic disease risk factor surveillance (STEPS) (WHO, 2008):

$$n = z^2 * \frac{p(1-p)}{e^2}$$

Where z = level of confidence (1.96 value for 95% confidence interval), P = baseline level of the indicators (from previous studies baseline prevalence of childhood obesity = 10%), e = margin of error (for this 0.05 will be used because the baseline level of the indicators is not <0.10).

$$n = 1.96^2 * \frac{0.53(1 - 0.53)}{0.05^2} \qquad n = 87$$

To cater for design effect, 87 was multiplied by 1.5 = 130. A design effect of 1.5 is recommended for most surveys using complex designs other than simple random sampling (WHO, 2008). Taking cognizance of a non-response of 5% from previous studies, the final sample size was 130 + 7 = 137. Proportional allocation was used to determine the sample size for each of the selected health facilities where those health facilities with larger number of nurses had higher number of participants.

Sampling and participants recruitment

Using a systematic sampling, three health facilities were selected from a list of health facilities in Tamale. Based on a systematic random sampling technique every 4th hospital was selected from the list. Letters of permission were written to the heads

Exclusive breastfeeding among nurses

Failatu et al.,

of the selected health facilities to obtain access to the hospital. Research assistants visited the hospital to recruit potential participants and visited all units of the hospital. In each of the units, potential participants were approached to participate in the study through convenience sampling. Those that agreed to participate and met the inclusion criteria were given an information sheet detailing the consent process and introduction to the study. Subsequently, they were asked to sign a consent form if they consented to participate in the study.

Data collection methods

Data was collected using questionnaires, focus group discussions and key informant interviews. Items of the questionnaire were derived from those of previous studies. The questionnaire was used to the following: socio-demographic assess characteristics of participants, the practice of exclusive breastfeeding, and the conduciveness of the working environment for nurses to practice exclusive breastfeeding. The items of questionnaire were reviewed by a team of nutritionists, dieticians and behavioral scientists and were deemed appropriate. The questionnaire was pre-tested on a sample of 10 participants to ensure understanding and comprehensibility of the items of the questionnaire. Participants spent 10-15 minutes to complete the questionnaire.

Focus group discussions were employed to capture the wide range of experiences of the participants regarding the practice of exclusive breastfeeding at the work place setting. The focus group discussions allowed participants to express their personal views, knowledge and experiences concerning the practice of exclusive breastfeeding in the work setting. The focus group discussions consisted of about six participants who were at different stages of exclusive breastfeeding. A discussion guide was used to lead the focus group discussions. Items of the discussion guide considered the conduciveness of the work environment for breastfeed exclusively including facilitators and barriers within the work environment that affected the practice of exclusive breastfeeding. All focus group discussions were audio-taped and transcribed verbatim. Each of the

Failatu et al.,

discussions lasted a duration of 30 minutes to 1 hour.

Key informant interviews were used to assess the opinions of heads of the units of the hospital regarding the conduciveness and policies of the health facilities regarding breastfeeding babies at the workplace. The interviews were informed by a discussion guide and were audio-taped and transcribed verbatim. Five key informant interviews were conducted.

Statistical analysis

The quantitative data analysis followed the conventional variable identification, entry and manipulation using the SPSS software. Means, standard deviations and frequencies were used to describe the data. The qualitative data analysis was achieved through coding as well as thematic and content analysis. All interviews were transcribed verbatim into English. Transcripts were checked for errors in conjunction with the digital audio recordings. Transcripts of the individual interviews were read and re-read and assigned a series of codes. The codes were read by all members of the research team to ensure uniformity. The codes were grouped into similar themes/concepts and augmented with illustrative quotes.

RESULTS

General and socio-demographic Characteristics

From a total of 137 administered questionnaires; 134 were returned in which 125 (91.2% response rate) were found to be complete and were included into the study. Table 1 shows the general and socio-demographic characteristics of the nurses. The mean (SD) age was 29.61 (4.16) with 50.4% aged younger than 30 years. The nurses had a mean (SD) monthly income level of GHC 1174 (393.5).

Practice of exclusive breastfeeding and reasons for not exclusively breastfeeding

Regarding the practice of exclusive breastfeeding, 66.4% of the lactating mothers said they practiced exclusive breastfeeding (Shown in Table 2). Majority of the participants also believed that they had enough breasts milk to exclusively breastfed their

Table 1: General and socio-demographic characteristics of the nurses

Variable	Frequency
Age (n=125)	
Mean age (SD)	29.62 (4.16)
<30 years	63(50.4%)
≥30 years	62(49.6%)
Marital status (n=130)	
Married	126(96.9%)
Not married	4(3.1%)
Parity (n=116)	
Mean (SD) parity	1.94(0.94)
< 2 children	90(77.6%)
≥ 2 children	26(22.4%)
Religion (n=117)	
Islamic	83(70.9%)
Christianity	34(29.1%)
Ethnicity (n=101)	
Dagomba	63(62.4%)
Gonja	7(6.9%)
Mamprusi	5(5.0%)
Akan	7(6.9%)
Others	19(18.8%)
Number of years	
working as a nurse	
Mean (SD)	3.74(2.75)
< 4 years	60(48.8%)
≥4 years	63(51.2%)

Frequencies do not add up to 130 participants due to missing values

babies. About 53.0% of the participants said the babies should be breastfed on demand, while the rest indicated a specific number of times the baby should breastfed in a day. For those who do not practice exclusive breastfeeding, 48.4% said their nature of work prevented them from exclusively breastfeeding their children; 22.6% cited long distance between work and home and the rest blamed short maternity leave. Family support and spouse support were very encouraging with respective frequencies as 94.5% and 90.7% whilst support from friends recorded 75.9%. Some of the reasons for not practicing breastfeeding are corroborated by the following quote, "how can I practice EBF when I have short maternity leave and a busy schedule at work"

Table 2: Practice of exclusive breastfeeding and reasons for not

Variable	Frequency	
Practices exclusive breastfeeding		
(n= 116)		
Yes	77(66.4%)	
No	26(22.4%)	
Breastfeeds child on demand		
(n=118)		
Yes	62(52.5%)	
No	56(47.5%)	
Planned to breastfeed during		
pregnancy (n=125)		
Yes	108(86.4%)	
No	17(13.6%)	
Reasons for not breastfeeding		
(n=31)		
Distance and time factor	7(22.6%)	
Nature of work	15(48.4%)	
No or insufficient Breast milk	3(9.7%)	
EBF children do not eat after		
6months	1(3.2%)	
Short maternity leave	5(16.1%)	
Receives support from family and		
friends		
Spouse (n=108)	98(90.7%)	
Family $(n=109)$	103(94.5%)	
Friends (n=87)	66(75.9%)	
Believes that will produce enough		
milk to meet baby nutritional		
requirements (n=123)	145(02.50()	
Yes	115(93.5%)	
No	8(6.5%)	

Data present as frequency (percent)

Some of the respondents reported that their customs and traditions is also a factor that they could not exclusively breastfed their babies. As narrated by one of the respondents during an individual interview.

My mother in-law always gives water to my baby to drink any time she was bathing the baby. Even at day two when we returned from the hospital, the very day she was to bath her; she gave her water to drink. I complained to my husband but she said is part of their tradition that the baby should drink water mix with shea butter so that the baby will not be having stomach upsets.

This illustrates how customs and tradition has a great influence on maternal and child health in the

Exclusive breastfeeding among nurses

Failatu et al.,

African tradition.

One of the respondents in a discussion on the reason for not exclusively breastfeeding reported as follows: "hmm! My sister, I know all the importance of exclusive breastfeeding as a nurse. I teach and educate people on the need for exclusive breastfeeding but the question is do I practice it myself? The moment you give birth and you are in the family house; your mother in-law takes over the bathing and sometimes the feeding of the child. Sometimes they even go outside the house and bring a traditional birth attendant to be bathing the child. During the bathing, they give the child water and some herbs to drink".

Another respondent reported as follows: "considering the nature of my work and the distance from my home to the work will not permit me to practice EBF, the working environment is not conducive for breastfeeding mothers to come with their babies to work; hence I resort to complementary feeding"

Conduciveness of the work environment for exclusive breastfeeding

As demonstrated in Table 3, hospital management responsiveness to participants bringing their babies to work was evaluated from which only 14.3% said they were allowed to bring their babies to work and 81.0% said management complained whenever they brought their children to work. Only 23% of the participants brought their babies to work, from which 67.9% breastfeed in the nurses'/consulting rooms, 10.7% breastfeed at the hospital daycare, 3.6% at the babies' room whilst 17.9% breastfeed either under a tree, roadside or nearby shops. Concerning the provision of time for lactating mothers to breastfeed, 54.0% said management allows them some time off to go breastfeed.

Participants also identified that uncooperativeness of superiors prevented them from exclusively breastfeeding their infants. This is illuminated by the following quote from one of the participants.

'I never had problem in my ten years working as a nurse, but when I gave birth to my first child, I had series of problems with my in charge in the ward. He always wants me to be on the ward even when time to breast is feed my baby he wants me to be working. There was a day he asked me to choose between the work and my child. Hmm! Is not

Failatu et al.,

Table 3: Conduciveness of the work environment for the practice of exclusive breastfeeding

Variable	Frequency	
Hospital management responsive-		
ness to nurses bring their babies to		
work (n=105)		
Not allowed	85(81.0%)	
Allowed	15(14.3%)	
Unsure	5(4.8%)	
Brings baby to work		
Yes	30(23.6%)	
No	97(76.4%)	
Hospital has a room for workers		
babies		
Yes	14(13.7%)	
No	88(86.3%)	
Place of breastfeeding when baby is		
brought to work (n=28)		
Nurses/consulting rooms	19(67.9%)	
Hosp. day care	3(10.7%)	
Babies room	1(3.6%)	
Under a tree/ roadside/nearby shop	5(17.9%)	
Management gives time off to		
breastfeed		
Yes	69(53.9%)	
No	59(47.1%)	
Amount of time given (n=66)		
30mins	35(53.0%)	
45mins	10(15.2%)	
1 hour	13(19.7%)	
+1hour	8(12.1%)	
Gets punished for bringing child		
Yes	19(16.1%)	
No	99(83.9%)	

Data present as frequency (percent)

easy to be a mother whiles working". between the work and my child. Hmm! Is not easy to be a mother whiles working".

DISCUSSION

Practice of exclusive breastfeeding

In the current study we investigated the practice of exclusive breastfeeding and the conduciveness of the work environment of the hospital to support the practice of exclusive breastfeeding among nurses with babies. It was found in this study 66.4% of the nurses practiced exclusive breastfeeding. This is similar to the 68.0% reported by Gladzah (2013) among female health workers in two hospitals in

Accra but higher than the 11.0% reported by Sadoh et al., (2011) among Nigerian female medical doctors. Compared to the general population, the rate of exclusive breastfeeding is similar to the 66.0% reported by Asare et al., (2018) in a cross-sectional study at a child welfare clinic in Tema Manhean in Ghana but higher than the 52.0% reported by Mogre et al., (2016) among rural lactating mothers in the Sawla-Tuna-Kalba district of the Savana Region of Ghana. The differences in the rates could be due to variation in definitions of exclusive breastfeeding as well as differing populations of the current study and those studies.

It is however important to note that there is some bit of improvement and progress especially when only 35.0% of infants are exclusively breastfed worldwide and 37.0% in low- and middle-income countries (Victora et al., 2016). Notwithstanding this, it is concerning that among health professionals such as nurses (who are expected to practice what they encourage others to do), the rate was woefully lower than the WHO/UNICEF recommended exclusive breastfeeding optimal rate of 90.0% (WHO, 2009). While considering that a number of factors could be contributing to the current situation, we suggest that nurses with babies should be role models for their clients by practicing exclusive breastfeeding in order to be in a good position to relate the benefits of exclusive breastfeeding to other mothers.

The emotional, psychological and social factors that affect a nursing mother's state of mind are said to be psycho-social. In this present research, 93.5% of the nurses assessed believed that they could produce enough breast milk to meet their children's nutritional needs and a total of 86.4% (108) nurse planned to breastfeed exclusively since conception. According to Neifert and Bunik (2013), the issue of milk insufficiency widely reported (Gonzalez et al., 2018; Page-Goertz, Wrtz and Hoffman, 2015; Kazaura, 2016) as a problem of exclusive breastfeeding is simply a perception-response. Hormonal secretions that trigger milk production (prolactin) and breast milk ejection (oxytocin) are affected by the mother's state of mind and

Failatu et al.,

emotions. Negative emotions like doubt, fear, and insecurity and self-blame would turn off the cisterns through which breast milk is produced for the infant. Lindberg as cited by (Gladzah, 2013) pointed out that only five (5) percent of nursing mothers are incapable of producing breast milk. Thus the belief systems of the study participants could have contributed to the over 66.0% rate of exclusive breastfeeding as observed in the study results. Positive mental conditioning affected the rate of exclusive breastfeeding among nurses.

Conduciveness of the work environment to exclusively breastfeed

The findings of this study revealed that there were occupational related contributions to the practice of exclusive breastfeeding among nurses. The nature of work accounted for 48.4% of exclusive breastfeeding problems according to this study's findings. This is supported by the reports of previous studies (Seteqn et al., 2012; Machado et al, 2014; Gonzalez et al., 2018; Neifert and Bunik, 2013). Insufficiency of the maternity leave period is a major concern when it comes to the relationship between exclusive breastfeeding and occupation.

The results of this current study revealed that nurses were unsatisfied with the maternity leave period given them. In the current study, 16.1% of nurses who were not breastfeeding exclusively cited the duration of maternity leave as a concern. According to Neifert and Bunik (2013), mothers must be given a reasonable length of maternity leave to be able to breastfeed exclusively. Other works such as that of Stolzer (2011) reported that the length of maternity leave affects the practice of exclusive breastfeeding.

The job description of nurses is very demanding and any shift in attention towards infant nursing on the part of nurses could put human lives at stake. Thus a nurse breastfeeding an infant exclusively would require an extended leave period of not less than six months. According to paragraph 28, 38 and 45 of the global Maternal Infant and Young Child Nutrition strategies; every mother is entitled to a maternity leave with full benefits among other benefits. In addition to that Gladzah (2013) pointed

out that the maternity leave period for nursing mothers in Ghana have been increased from twelve (12) weeks to sixteen (16) weeks the equivalence 3.7 months. This is a few days shy of four (4) months. It can be deduced that exclusive breastfeeding is seldom completed at home during the maternity leave period since the time allocated is not up to six months. This might make exclusive breastfeeding near impossible in the last two months since the all-important practice would have to be mixed with the demanding activity of saving human lives (nursing). Therefore, occupation specific maternity arrangements would have to be considered for effective practice of exclusive breastfeeding to achieve both national and global indicators for healthy infant feeding.

Furthermore, the findings of this current study showed that heavy work schedules as well as demands of paid employment adversely contributed to declines in exclusive breastfeeding. From the findings, 48.4% of nurses attributed their challenge of exclusive breastfeeding to the demanding nature of the nursing profession. This was supported by the findings of Gonzalez et al., (2018) and Stolzer, (2011). Stolzer (2011) supports these findings by equally reporting that the demands of paid employment were 76.0% of the times more likely to affect a nursing mother's ability to breastfeed. The World Health Organization (2002) recommends the effective tailoring of exclusive breastfeeding to work place culture through part-time arrangements and breastfeeding breaks. However, these best practices scarcely apply to nurses working in health facilities to save precious human lives. Act 57 (6 & 7) of Ghana's labour law empowers a nurse who doubles as a nursing mother to interrupt assigned duties for an hour to feed their infants.

The night-shift was created to help manage the nursing workload and it's an obligatory part of their operational framework. However, the concept of the night shift is contrary to Act 57 (1) of the labour law which bars an employer from making a nursing mother work from 22.00 GMT the previous night to 07.00 GMT the next morning. As to whether the night shift applies to nurses who are

Failatu et al.,

breastfeeding is a matter for further study.

Another factor related to exclusive breastfeeding and work is the baby-friendliness of the work place and if it supports infant breastfeeding. According to this current study's findings, 81.0% of nurses report that hospital management allows them to bring their infants with them to work. Also, most nurses (83.9%) reported that they were not punished for bringing a baby with them to work. This inferred (although not with 100% precision) that most health facilities allowed babies to be brought to work by health professional and there are no penalties for doing so. According Machado et al., (2014) in a Brazilian assessment, the greatest challenge most mothers had in the fourth month postpartum was re -integrating into the working environment with a baby. Neifert and Bunik (2013) had similar concerns as Machado and his colleagues.

However, it could be surmised from this study's findings that acceptance of the baby was not the issue. According to extracts of this study's FGDs, the said nurses leave their babies with a mother-in-law, a stay home babysitter or a caretaker around the hospital where they work. These secondary caregivers of the child raise the question of whether the infant is actually being exclusively breastfed and whether other foods are not introduced in the absence of the mother. A couple of participants admitted that their mother-in-laws sometimes give their babies water and Shea oil mixtures while bathing them. These practices compromise the protective effects of breast milk since pre-lacteals and complementary feeds at such early ages introduces pathogens the infant would not be able to fight off.

The reason for nurses not breastfeeding their infants in the hospital premises was deduced from the focus group discussions to be; fear of queries, very strict head of departments, lack of privacy and heavy work schedules. These are in line with the findings of Utoo *et al.*, (2012) who opined that unfriendly hospital practices have the tendency to affect the practice of exclusive breastfeeding. Nursing Department In-charges, Head of Departments

should be admonished to find feasible ways to create a more breastfeeding friendly environment in health facilities. According to Neifert and Bunik (2013), supportive maternity practices like on-site daycares, breastfeeding breaks, breastfeeding rooms and maternity leave are essential for the practice of exclusive breastfeeding.

Findings of the current study showed that there were no special breastfeeding rooms and the places of breastfeeding were the nursing stations and consulting rooms which provides little to no privacy. This finding was supported by Karim et al., (2018). A designated breastfeeding room is a factor indicated in both global maternal and young child nutrition (MIYCN) guidelines and the international labour organizations (ILO) labour codes (WHO, 2003). This is a factor that might bring to question the baby-friendly status of health facilities in the Tamale Metropolis if nurses are unable to soundly breastfeed exclusively in their premises. It is just as Stratton and Henry (2011) postulated that employers would not easily alter work place culture and infrastructure in the name of breastfeeding support. They assume they would be mixing work with family and create precedencies that could not be broken in the future.

Furthermore, the availability of allowable time to breastfeed was another matter uncovered by the findings of the present study. According to the findings, the issue of hospital management allowing nurses to breastfeed was a gamble. This implies that 50.0% of the time they were allowed and 50.0% of the time they are not allowed. This result was supported by Yan et al., (2014) who reported that for exclusive breastfeeding to be a success, employer cooperation is very essential. 50/50 allowance of breastfeeding in hospital might be a contributory factor explaining why most nurses would not breastfeed in the hospital premises. They might breastfeed outside in fear that breastfeeding inside might count as non-compliance malfeasance of some sort. It was clear in the current study that, nurses would not bring their babies to the hospital premises on grounds of protecting the infants from nosocomial infections (infections contracted from the hospital). The current study findings showed that the maximum time allowed for nurses to breastfeed at work was thirty minutes. The Ghana labour Law provides an allowable time of at least one hour for nursing mothers who are employees for the purpose of infant care.

CONCLUSION

The practice of exclusive breastfeeding among nurses with babies was relatively high. However, more is to desire from this cohort of people who are health professionals with a job description to carry out nutrition and breastfeeding counseling. A number of work-place related factors affected the practice of exclusive breastfeeding including lack of an enabling work environment: inadequate length of maternity leave, workload, lack of breastfeeding rooms, and among others. The study therefore recommended that management of healthcare facilities in the Tamale metropolis and beyond should establish a breastfeeding room for nursing so that nurses can breastfeed their babies when the need arises. This includes an outright attitudinal change among employers. There should also be institutional commitment to the essential care practice of exclusive breastfeeding for all persons within the confines of health facilities (patients, maternity participants and nurses alike).

COMPETING INTERESTS

The authors declare that they have no competing interests.

References

Adda, L. (2015). Exclusive Breastfeeding Practices Among First-Time Mothers In Kassena-Nankana Municipality. Retrieved 29
December 2019, from http://ug
space.ug.edu.gh/ bitstream
handle/123456789/21150/Exclusive%
20Breastfeeding%20Practices%
20Among%20First-Time%20Mothers%
20an%20Kassena-Nankana%
20Municipality-%202015.pdf?
sequence=1&isAllowed=v

Asare, B. Y. A., Preko, J. V., Baafi, D., &

Exclusive breastfeeding among nurses Failatu et al.,

Dwumfour-Asare, B. (2018). Breastfeed ing practices and determinants of exclusive breastfeeding in a cross sectional study at a child welfare clinic in Tema Manhean, Ghana. *International breastfeeding Journal*, 13(1), 12

- Brown, C.R.L., Dodds, L., Legge, A. Bryanton, J., Semenic, S. (2014). Factors influencing the reasons why mothers stop breast feeding. *Canadian Journal of Public Health*, 105: e179.
- Bahl, R., Barros, A. J. D., França, G. V. A., Horton,
 S., Krasevec, J., Rollins, N. C. (2016).
 Breastfeeding in the 21st century:
 epidemiology, mechanisms, and lifelong
 effect. *The Lancet*, 387(10017), 475–490.
- Chatterji, P., & Frick, K. (2005). Does Returning to Work After Childbirth Affect Breastfeeding Practices? Review Of Economics Of The Household, 3(3): 315-335.
- Claramonte, M. T., and Gavín, M. O. (2018).

 Prevalence of breastfeeding and factors associated with the start and duration of exclusive breastfeeding in the Community of Madrid among participants in the ELOIN. *Anales De Pediatría* (English Edition), 89(1), 32–43.
- Cripe ET (2008): Supporting breastfeeding: nursing mothers' resistance to and accommodation of medical and social discourses. Emerging Perspective in Health Communication: Meaning, Culture and Power. Edited by: Zoller HM, Dutta MJ. New York: Routledge Taylor and Francis Group, 63-84.
- Domenico, Desirae M, Karen H. Jones (2014). Career aspirations of women in the 20th century,
- Foo, L., Quek, S., Ng, S., Lim, M., & Deurenberg-Yap, M. (2005). Breastfeeding prevalence and practices among Singaporean Chinese, Malay and Indian mothers. *Health Promotion International*, 20(3): 229-237
- Galson, S. K., (July 2008). "Mothers and children benefit from breastfeeding". *Journal of the American Dietetic Association*. 108 (7): 1106.

Failatu et al.,

- Gartner LM, Morton J, Lawrence RA, Naylor AJ, O'Hare D, Schanler RJ, Eidelman AI (2005): American Academy of Pediatrics Section on Breastfeeding: Breastfeeding and the use of human milk. Pediatrics; 115: 496-506.
- Gartner, S. (2005). Breastfeeding. *American Journal Of Nursing*, 105(5):15.
- Gladzah, N.D. (2013). Challenges of exclusive breastfeeding among female health workers in two hospitals in Accra. Unpublished Masters Thesis, University of Ghana. Accessed on 15th August, 2019 from www.ugspace.ug.edu.gh González, M. D. R., Marrón, H. O., Cañedo-Argüelles, C. A., Olcina, M. J. E.,
- Rico, O. C., Gonzalez-Jimenez E, Garcia PA, Aguilar MJ, Padilla CA, Alvarez J. (2014). Breastfeeding and the prevention of breast cancer: a retrospective review of clinical histories. *Journal of Clinical Nurs*ing 23: 2397–403.
- Henry BA, Nicolau AI, Americo CF, Ximenes LO, Bernheim RG, Oria MOB (2010): Socio-cultural factors influencing breastfeeding practices among low-income women in Fortaleza-Ceara-Brazil: a Leininger's sunrise model perspective. Enfermeria Global, [http://www.um.es/eglobal]
- Horta, B. L., Mola, C. L. D., and Victora, C. G. (2016). Breastfeeding and intelligence: a systematic review and meta-analysis. *Acta Paediatrica*, 104: 14–19. *Journal of career and technical education*, 22(2).
- Karim, F., Billah, S. M., Chowdhury, M. A. K., Zaka, N., Manu, A., Arifeen, S. E., and Khan, A. N. S. (2018). Initiation of breastfeeding within one hour of birth and its determinants among normal vaginal deliveries at primary and secondary health facilities in Bangladesh: A case-observation study. *Plos One*, *13*(8).
- Kazaura, M. (2016). Exclusive breastfeeding practices in the Coast region,
 Tanzania. *African Health Sciences*, 16(1): 44.
 Kimani-Murage, E.W., Madise, N.J., Fotso, J. C.,

- Kyobutungi, C., Mutua, M.K., Gitau T. M.and Kramer MS, Kakuma R. (2004). The optimal duration of exclusive breast feeding: a systematic review. *Adv Exp Med Bio.* 2004;554:63–77.
- Machado, M. C. M., Assis, K. F., Oliveira, F. D. C. C., Ribeiro, A. Q., Araújo, R. M. A., Cury, A. F., ... Franceschini, S. D. C. C. (2014). Determinants of the exclusive breastfeeding abandonment: psychosocial factors. *Revista De Saúde Pública*, 48(6): 985 —994.
- Mogre, V., Dery, M., & Gaa, P. K., (2016). Knowledge, attitudes and determinants of exclusive breastfeeding practice among Ghanaian rural lactating mothers. *International breastfeeding journal*, 11(1), 12.
- Neifert, Marianne, and Maya Bunik. (2013). "Overcoming Clinical Barriers to Exclusive Breastfeeding." *Pediatric Clinics of North America*, vol. 60, no. 1, 2013, pp. 115–145.
- Ogido, Rosalina (2014). "The Working Mother and the Access To Childcare", Facing an Unequal World: Challenges for Global Sociology' An incredibly sensitive community of academics and professionals such as the International. Yokohama Japan, 13th to 19th July, XVIII. ISA World Congress of Sociology (Isaconf).
- Peters, E., Wehkamp, K., Felberbaum, R., Krüger, D., & Linder, R. (2005). Breastfeeding duration is determined by only a few factors. *European Journal Of Public Health*, 16(2): 162-167.
- Schmied V, Barclay L (1999): Connection and pleasure, disruption and distress:
 Women's experience of breastfeeding. J
 Hum Lact; 15 (4): 325-334.
 10.1177/089033449901500410.
- Seteqn, T., Belachew, T., Gerbaba, M., Deribe, K., Dribew, A. and Biadgilign, S., (2012). Factors associated with Exclusive Breast feeding practices among mothers in Goba district, South East Ethiopia: a cross sectional study. *International Breastfeeding Journal*, 7: 17

Exclusive breastfeeding among nurses Failatu et al..

- Stolzer, J. M., (2011). Breastfeeding and obesity: a meta-analysis. *Open Journal of Preventive Medicine*, 1:88–93
- Stratton. and Henry, B.W., (2011). What employers and health care providers can do to support breastfeeding in the work place: Aiming to match positive activities with actions. *Infant, Child & Adolescent Nutrition*, 3:300.
- Utoo, B.T., Ochejele, S., Obulu, M.A., and Utoo, P.M., (2012). Breastfeeding Knowledge and attitudes among Health workers in a Health care facility in South-South Nigeria: The need for Middle level Health Manpower Development. Retrieved from Htpp://www.internationalbreast feedingjournal.content/7/1/17a,
- Victora CG, Barros FC, Horta BL, Lima RC (2016). Breastfeeding and school achievement in Brazilian adolescents. *Acta Paediatrica*, **94**: 1656–60.
- WHO (2002). The global strategy for infant and young child feeding, as presented in the report on Infant and young child nutrition (A55/15 of 16 April 2002) and as

- endorsed by the Fifty-fifth World Health Assembly in its resolution WHA55.25.
- WHO (2009). Infant and Young Child feeding.

 Model Chapter for texthooks for medical students and allied health professionals.

 Geneva: World Health Organization.
- WHO/UNICEF (2017). The Investment Case for Breastfeeding, WHO/UNICEF (pp. 2-7). Retrieved from https://www.who.int/nutrition/publications/infantfeeding/global-bf-collective-investmentcase.pdf? ua=1
- WHO (2013). WHO recommendations on postnatal Care of the Mother and Newborn. Geneva Switzerland Who;10
- Yan, J., Liu, L., Zhu, Y., Huang, G., and Wang, P. P. (2014). The association between breast feeding and childhood obesity: A meta-analysis. *BMC Public Health*, 14(1).
- Yatich, N., (2011). Patterns and determinants of breastfeeding and complementary feeding practices in urban informal settlements, Nairobi Kenya. *Pubmed* 11:396



