Family Related Factors Influencing Exclusive Breastfeeding in Rural Northern Ghana: A Qualitative Analysis

Shamsu-Deen Ziblim (PhD) 1
AdadowYidana (PhD) 2
Iddrisu Seidu (MSC Public Health) 3

Abstract
Exclusive breastfeeding has been recognised as an important public health concern for the primary prevention of child morbidity and mortality. Consequently, the WHO and UNICEF have recommended exclusive breastfeeding for the first six months after delivery, followed by the introduction of complementary foods and continued breastfeeding for 24 months or more. Even so, exclusive breastfeeding is not adequately practised in Ghana. This study sought to understand and explain the family influence on exclusive breastfeeding practices in rural northern Ghana. An exploratory qualitative research design was used to explore the central phenomenon of breastfeeding in rural northern Ghana. Individual interviews were conducted. The participants were 25 and included breastfeeding mothers, paternal grandmothers, paternal grandfathers, fathers of babies, traditional birth attendants, and a breastfeeding support group leader. All interviews were audio-taped, transcribed, and analysed using content analysis. Four main themes emerged in relation to the forms of family influences on exclusive breastfeeding: family knowledge of exclusive breastfeeding; primary and secondary participants in child care; family beliefs and practices; and learning to breastfeed. It emerged that infant feeding and care is a family responsibility rather than being individually centred. A family’s knowledge, belief systems, and way of participation in infant care heavily influence a woman’s ability to practise and sustain exclusive breastfeeding. The implication is that at any point in time, family players should be considered in any campaign on exclusive breastfeeding.

Keywords:
Exclusive breastfeeding, Family, Ghana, Influence, Rural community

1. Department of Community Health and Family Medicine, School of Medicine and Health Science, University for Development Studies, Tamale, Ghana Tel: +233244202759 Email: zshamsu72@gmail.com
2. Department of Community Health and Family Medicine, School of Medicine and Health Science, University for Development Studies, Tamale, Ghana Tel: 0207036488, Email: adadowy@yahoo.com
3. Centre for Development and Advocacy, Tamale, Ghana Tel: +233 209070308, Email: saha.seidu1@gmail.com

1. Corresponding Author:
Department of Community Health and Family Medicine, School of Medicine and Health Science, University for Development Studies, Tamale, Ghana Email: zshamsu72@gmail.com Tel: +233244202759
Introduction
According to the World Health Organization (WHO), exclusive breastfeeding refers to the situation where ‘the infant has received only breast milk from his/her mother or a wet nurse, or expressed breast milk and no other liquids, or solids, except drops or syrups consisting of vitamins, minerals, supplements, or medicine’ (WHO, 1991). Research has shown that suboptimum breastfeeding, especially not exclusively breastfeeding a child for the first six months of life, contributes to about 1.4 million deaths and 10% of the disease burden in children under the age of five years in low-income countries (Black et al., 2008). For a baby to grow to his or her full potential, the baby needs the right food at the right time. To this end, there has been a renewed interest and global commitment to promote breastfeeding as the ‘best’, ‘perfect’, and ‘natural’ feeding method for newborns (Whalen & Cramton, 2010; Issaka, Agho, & Renzaho, 2017).

Exclusive breastfeeding is deemed important because of its role in reducing infant morbidity and mortality (Sloan, Sneddon, Stewart, & Iwaniec, 2006; Mututho, Willy, & Patrick, 2017). It has also been established that infants who are exclusively breastfed for the duration of six months are significantly protected against major childhood diseases including diarrhoea, gastrointestinal tract infection, allergic diseases, childhood leukaemia and lymphoma, inflammatory and bowel disease (WHO, 2010; American Academy of Pediatrics, 2012). Breastfeeding has many health benefits for an infant and has been reported to be an ideal food for an infant’s healthy growth (Mututho, Willy, & Patrick, 2017). Exclusive breastfeeding is also found to be protective against sudden infant death syndrome by reducing the risk by 50% at all ages during infancy, and these benefits tend to increase as long as duration and exclusivity continue (Vennemann et al., 2009). Also, exclusive breastfeeding protects children against single and recurrent incidences of Otitis Media, (Duncan et al., 1993).

In the lower-income economies where many HIV positive women decide to breastfeed because of lack of safe, affordable, acceptable, and sustainable replacement feeding, exclusive breastfeeding will help minimize HIV-1 transmission. This was reported in a prospective study of 549 HIV infected breastfeeding mothers in South Africa (Coutsoudis, Miriam, Nadia, & Coutsovdis (2011). The study established a significantly lower risk of HIV-1 transmission in children who were exclusively breastfed for up to 3 months in contrast with those who had mixed feeding prior to 3 months. Studies by Iliff et al. (2005) and Coovadia et al. (2007) also confirmed that the relative risk of HIV-1 infection is lower for exclusive breastfeeding infants. Specifically, Coovadia et al. (2007) showed that infants who received breast milk and solid foods were 11 times more likely to be infected with HIV than those who received exclusive breastfeeding.

Consequently, the WHO and UNICEF (1990) have recommended exclusive breastfeeding for six months, followed by the introduction of complementary foods and continued breastfeeding for 24 months or more. Despite this recommendation and the essential role of exclusive breastfeeding in infant survival, attempts to promote the practice in lower-income economies have generally achieved less than the desired outcomes. In Ghana, where 28% of all under-five children are stunted and 9% are wasted (Ghana Statistical Service & ICF Macro, 2009), exclusive breastfeeding practices tend to be short-lived. While an estimated 84% of children younger than 2 months are being exclusively breastfed, the percentage of children who continue to receive exclusive breastfeeding by age 4 to 5 months plummets to about 49% (Ghana Statistical Service & ICF Macro, 2009).

Previous studies on the dynamics of the practice have been focused on factors and barriers to exclusive breastfeeding (Aidam, Perez-Escamilla, Larrey, & Aidam, 2005; Otoo, Larrey, & Pérez-Escamilla, 2009; Senarath, Dibley, & Agho, 2010). Some too have examined the health outcomes of exclusive and non-exclusive breastfeeding (Dieterich, Felice, O’Sullivan, & Rasmussen, 2012; Kramer, 2003); while others have also studied social influences on breastfeeding decisions and practices. In the lower-income economies, successful breastfeeding is an interactive process between the mother and the baby’s physical and psychological needs. In some instances, these needs are dictated by the kind of family and social support and the ability of the woman to effectively lactate (Galvo, 2006) and paternal involvement in breastfeeding promotion programmes (Susin & Giugliani, 2008).
In an ethnographic study of socio-cultural influences on infant feeding in South Africa, Thairu, Gretel, Nigel, Ruth, & Ncamisile (2005) found a strong influence of family (husbands’ mother, father and sisters including the woman’s mother) on decisions regarding exclusive breastfeeding, which varied along what the authors described as ‘social independence’. Young mothers below age 19 were mainly less socially independent and tend to be influenced more than their older counterparts. Research has shown that a single person who wields much influence on a decision regarding infant feeding in Africa is the infant’s paternal grandmother (Reinsma et al., 2012; Rochat, 2016) whose experience, support, and advocacy are often needed by new breastfeeding mothers (Grassley & Eschiti, 2008). This appears to be so because in highly patriarchal societies, decisions related to childbirth and breastfeeding are often determined by mothers-in-law (Carter, 2002). This is because of the cultural dynamics that legitimizes authority in patriarchal societies.

A study conducted by Dun-Dery and Laar (2016) on exclusive breastfeeding in Ghana focused on professional working mothers in cities. In the case of Victor, Dery, and Gaa (2016), the focus was on knowledge, attitudes, and determinants of exclusive breastfeeding among Ghanaian rural lactating mothers. Other studies include Ayawine and Ae-Ngibise (2015) on determinants of exclusive breastfeeding in two sub-districts in Ghana; Asare, Preko, Baafi, and Dwumfour (2018) on breastfeeding practices and determinants in Tema Manhean, Ghana; Danso (2014) on exclusive breastfeeding among professional working mothers in Kumasi; and Fosu-Brefo and Arthur (2015) on effects of timely initiation of breastfeeding on child health in Ghana. Although these previous studies provided important insights into the several influences on breastfeeding, further exploration is necessary for understanding how family members might influence exclusive breastfeeding recommendations. Almost all the studies cited above on exclusive breastfeeding were largely quantitative. Thus, the aim of this study was to understand and explain the influences of members of a patriarchal family on exclusive breastfeeding practices in rural northern Ghana.

Data analysis
The interviews were audio-recorded and later transcribed and analyzed using content analysis procedures. A manual approach was used to form themes and sub-themes from the transcripts. This was deemed an appropriate analytical method since the purpose of the study was known (Ritchie, Spencer, & O’Connor, 2003; Rossman (2006). The transcripts were repeatedly read to achieve immersion. A close examination yielded the themes and sub-themes re-
ported in this study, and this was supported by verbatim quotes from the participants (Patton, 2002).

Research setting
The study was conducted in Moglaa, a community within the Savelugu Municipality, one of the twenty-six municipalities/districts forming the Northern Region of Ghana. The municipality is predominantly agricultural with about 97% of the active population engaged in peasant farming. Moglaa was chosen for this study because it has only Dagombas who still cherish their indigenous cultural practices. Like many rural communities in the municipality, the family system in Moglaa is patriarchal and predominantly based on the extended family structure where membership includes grandparents, fathers, mothers, uncles, aunts, and cousins. Each family is headed by a man and members live in one compound house, with shared experiences, strong solidarity, and regular interactions.

Rigour of the study
Credibility and trustworthiness of the study were achieved through engagement with participants who were deemed qualified to make sure that the right data was collected during the interview. There were follow up probes for clarification on answers that were not clear. This was done to ensure that the findings were rich and robust. Member checking was done to follow up on emerging themes. The credibility of the data was achieved by making sure that all the participants were knowledgeable and could share their experiences on breastfeeding. Transferability was assured by describing the participant’s characteristics for any researcher who might want to conduct a similar study. Dependability was achieved by engaging a third-party qualitative data analyst who analyzed and confirmed the findings.

Ethics consideration
It is necessary that qualitative research ought to be ethical and apply the right principals in the conduct and report of the study (Cohen & Crabtree, 2008). Informed consent was obtained before the commencement of the interviews. Upon agreement to participate, each participant was given written consent to sign/thumbprint before taking part in the study. Detailed explanation was given to the participants using simple terms in the language they could understand. Each participant was informed of the right to opt-out of the study at any point.

Results
The results from this study have been presented under each of the four identified themes with quotes to illustrate these themes.

Family Knowledge of Breastfeeding
There was evidence of familiarity with the idea and practice of exclusive breastfeeding among participants. Nursing mothers demonstrated a good knowledge of the benefits of exclusive breastfeeding and early initiation of breastfeeding to expel the placenta. ‘As necessary, when the placenta delays or fails to come out after delivery, breastfeeding then should be initiated to facilitate its release’.(TBA breastfeeding support group leader).

There was a consensus among breastfeeding women about the importance of first breastfeeding after delivery that colostrum gives strength and improves intellectual abilities:

‘It’s good for our children because it gives them strength and good intellect’ (Breastfeeding mothers).

Male family relations, mostly paternal grandfathers and fathers exhibited a lack of interest in getting a better understanding of the details of breastfeeding recommendations. They referred to mothers and grandmothers as people tasked with the responsibility to breastfeed. These individuals tend to view breastfeeding as a feminine activity.

‘Breastfeeding matters are meant for mothers or the grandmothers to handle, not us’ (Grandfather).

‘Breastfeeding is the responsibility of our mothers (the baby’s grandmother). They are responsible for all the training a woman would require especially for the first-time mothers who have no such experience’ (Father).

In the case of the grandmothers and traditional birth attendants, their responses depict people with little understanding of the essence of exclusive breastfeeding. They rather gave their babies water.

‘Hmmm, I will never allow my child to be thirsty. I will always give him water. I heard something like that
Who will insist that the child should be breastfed appropriately. You know, if a child is not fed well, he/she will not develop well’ (Traditional birth attendant).

Among the secondary care providers, a baby’s paternal grandmother was identified as the most important person whose participation goes beyond sheer guidance for novice breastfeeding women.

‘The grandmother takes care of the child to enable you to do your work; she is also responsible for bathing the child every day’ (Breastfeeding woman). In the absence of the grandmother, another elderly woman with experience of childbirth and care from the family assumes responsibility as the principal secondary care provider. There was, however, an acknowledgement that, young women, married or unmarried, are occasionally tasked with babysitting but are rarely consulted on matters of breastfeeding. Participation of adult male family relatives in everyday infant feeding and care was again reported to be uncommon. They are, however, found to be supportive when a child is sick, excessively cries, or fails to sleep at night.

‘Not much’ and another, ‘except when the child is sick or is crying’ (Breastfeeding women).

**Primary and secondary caregivers**

From the data, it was observed that breastfeeding was acknowledged as a responsibility of primary caregivers of newborns while the rest of the family participate as secondary care providers. This observation was made because the breastfeeding mother is the one who feeds the baby and only receives support from other members of the family when needed. Primary caregivers are expected to breastfeed in a manner consistent with what secondary caregivers may define as appropriate. Failure to breastfeed a baby in accordance with the family expectation could cause family and community disapproval.

‘My firstborn later refused to eat Tuo Zaafi [a staple food in the community] and people were saying it was my fault since I delayed introducing him to food’ (Breastfeeding woman).

In another interview, a TBA also confirmed the assistance needed from family members for effective breastfeeding of infants:

‘Members of a family help in many ways. Some women are for instance very lazy or reluctant to breastfeed. In such cases, it is members of the family who will insist that the child should be breastfed appropriately. You know, if a child is not fed well, he/she will not develop well’ (Traditional birth attendant).

Family beliefs and practices

The findings of this study also revealed some practices that are associated with breastfeeding and infants’ welfare. Two broad forms of these cultural and/or religious practices were reported: ‘pakopilamoag’ and ‘nyuhibu’. The pakopillamoag (literally translated as ‘white widows’ herbal concoction) is primarily performed to protect newborns against diseases and sicknesses associated with contact with unmarried widows who are sexually active.

‘We still have the ‘pakopillamoag’ in this community because all the women I recently assisted to deliver did use that herbal concoction after their births. If the baby is a boy, he is bathed with the concoction for three days; and for baby girls, it is done for four days. Besides bathing, the baby is further made to drink a little of the herbs. Once it is done, the baby will be protected against diseases /harm from ‘pakopilla’ (Traditional birth attendant).

These practices tend to defeat the campaign for exclusive breastfeeding on one occasion when I visited the Savelugu Hospital and we were told not to introduce water to the babies until 6 months later. I didn’t say anything, what I did was to remain silent about it and continued to give a small quantity of water to him each time I bathed him. Water adds energy to the body so if you don’t give the child water, he/she will continue to remain light weighted’ (Grandmother).

They could not comprehend how a human being can survive without water for six months.

‘Just imagine someone living without water for up to six months’ (Traditional birth attendant).

‘The child’s grandmother insisted that the child cannot abstain from drinking water until 6 months. As such, she used to secretly give him water after bathing him. Later he [the baby] started having stomachaches and then the doctors said there was plenty of water in his stomach’ (Breastfeeding mother).
inclusive breastfeeding. Breastfeeding mothers reported being aware of the practice, and stated that it is done just after delivery. When asked about how the concoction is administered, one breastfeeding mother explains that the practice is done during the bathing of the child. ‘The baby is bathed in it and made to drink a small quantity... Just after delivery’ (Breastfeeding woman).

Not all of the participants reported having observed the practice in their families. Those who reported abstinence (four breastfeeding women) from the practice had either abandoned the traditional model or were motivated by their faith (Islam or Christianity). On the whole, participants who professed Christianity were more likely to completely give up any use of concoction in relation to breastfeeding, while those who professed Islam were more inclined to use an alternative concoction deemed appropriate for the Islamic faith.

‘The baby’s father gave him a concoction prepared by writing some Quranic verses for him to drink. The purpose is to protect the baby from evil forces and harm’ (Grandmother).

Besides the ritual concoctions meant for newborns, participants again identified ‘nyuhibu’ [which literally refers to the process of aiding someone to drink something] as a Dagbon traditional ritual concoction that is performed to essentially increase breast milk supply.

‘Cow milk, millet, and other ingredients are the ingredients required to prepare the drink’ (Grandfather).

Only a few people who have the know-how can make it; and ‘we have only two of them in this community’ (father). Unlike the pakopilla herbal concoction, the ‘nyuhibu’ ritual concoction is made for only breastfeeding women;

‘And once they drink it, the milk will become plentiful by the end of that day’ (Fathers).

Participants also held a belief that a drop of breast milk on a baby’s penis would lead to impotence in adulthood. Such effect of breast milk is believed to have a connection with the presence of the ‘bad hair’ (the hair with which a baby is born) which is usually shaved on the 7th day of birth. It is thus strongly recommended to cover a baby’s pubic area whilst breastfeeding until the 7-day period is over.

‘What is encouraged especially during the first week of breastfeeding is to cover a baby boy’s penis while breastfeeding. This will prevent the breast milk from dripping on the penis which, when happens, causes impotence later in life. In some cases, the impotence can only be overcome after the death of the man’s mother (Traditional birth attendant).

Breastfeeding support from significant others

Support on how to breastfeed was provided for first-time mothers by women breastfeeding support group, family tutelage and observation. Mothers were informed and assisted by nurses to initiate breastfeeding immediately after delivery. Subsequent information about breastfeeding recommendations were given by the leadership of the breastfeeding support group in the community. The group was originally founded by some few women as a ‘self-help’ platform to promote their children’s welfare. It was later absorbed by the clinic to serve as a link between breastfeeding women and the Reproductive and Child Health Unit of the Community Clinic. Group leaders convene with members (nursing mothers) twice every month at the clinic. It has four leaders who are regularly given updates on breastfeeding and child health.

‘The leaders are supplied with pictorial breastfeeding pamphlets. Copies of these pamphlets are given out to nursing mothers to enable them to learn more about breastfeeding’. (Breastfeeding support group leader).

In addition to the clinic and the women support group, breastfeeding mothers again identified grandmothers and traditional birth attendants as other important sources of breastfeeding knowledge. They provide guidance on appropriate breastfeeding positions and how to ensure good attachment.

‘Normally, we educate breastfeeding women on the kinds of food items that can increase milk supply. We also educate them on how to properly position...”
the baby for optimal feeding’ (Grandmother).

‘It was her [the baby’s paternal grandmother] who guided me on the basic techniques of infant feeding such as how to correctly position the child for successful breastfeeding’ (Breastfeeding woman).

‘TBAs are very active in teaching us about breastfeeding…. Pregnant women in some cases may give birth at home and they will be in charge’. (Breastfeeding woman)

Observation was also identified by some respondents and confirmed by family members as a learning tool. Breastfeeding in the presence of family and friends or even in public places is an acceptable practice in most rural and urban Ghana. This provides an indirect learning platform for expectant mothers to learn. Observational learning, in most instances, was linked to breastfeeding mothers’ previous role as baby caretakers. With the exception of two participants, the rest of the breastfeeding participants recalled being a baby caretaker at some point in their lives.

‘You will have another opportunity to learn something about breastfeeding’ (breastfeeding mother)
‘A caregiver may even offer her own breast to a baby although it contains no milk yet. This is one of the strategies baby caregivers normally use when a baby is crying for milk and the mother is not immediately available’.

**Discussion**

Family members’ have been observed to have fundamental influences on efforts and decisions to exclusively breastfeed. While breastfeeding women were found to be well-informed on exclusive breastfeeding and other desirable forms of infant feeding practices such as early initiation of breastfeeding and the use of colostrum, important players in the family, including grandfathers and fathers, exhibited little understanding of breastfeeding recommendations due mainly to cultural and gender explanatory factors. However, in a study by Draman, Mohamad, Yuloff & Muhamad (2017), there was a mutual decision among parents on exclusive breastfeeding. Men’s little knowledge about breastfeeding matters is consistent with Thet et al.’s (2016) study in Myanmar, but contrary to Mithani, Zahra, Zohra, & Shehnaz’s (2015) where fathers could tell the advantages of breastfeeding and the need to exclusively breastfeed.

Unlike their male counterparts, grandmothers were found to be very supportive and influential on how infants are breastfed (Kerr & colleagues 2008; Thet et al. 2016). Similar studies have also reported the advocacy function of grandmothers (Grassley & Eschiti, 2008) who manage indigenous knowledge (Aubel, 2006). Besides their influence, grandmothers had also been moderately informed about exclusive breastfeeding recommendations. Some of them questioned the relevance of allowing babies to be ‘thirsty’ over a six-month period. Their lack of commitment suggests a need for proper targeting of important family relatives with information on breastfeeding recommendations.

These findings also highlight some breastfeeding beliefs and practices with both cultural and religious significance. The ‘nyuhibu’ ritual as reported in this study is mainly carried out to increase breast milk supply. Although newborns are not directly involved in the ritual, its success or failure might significantly influence how a baby is fed. What appears to be detrimental or impact negatively on EBF is the ‘pakopilla’ ritual since it involves feeding an infant with small quantities of herbal teas for a number of days. This bears the semblance of the findings of Ndekugri (2017) where the administration of water is seen as a welcome gesture. In the case of findings of Wanjohi et al.’s (2017) study, it is a taboo to feed babies on colostrum in some communities in Kenya. The effect of religion, especially Christianity, in eliminating similar traditional practices connected to breastfeeding has been previously documented by Aborigo et al. (2012) in a related study in northern Ghana.

This study established that a breastfeeding woman is expected to breastfeed in line with the dictates of her family. Equal participation of members in infant feeding is not expected because childcare is constructed and understood in terms of gender. This is contrary to what was found by Draman et al. (2017) where breastfeeding was a mutual affair. In this current study, female members of a family have significant involvement in matters of breastfeeding than their male counterparts, which also explains why de-
exclusive breastfeeding. Such increase in awareness about modern breastfeeding recommendations and infant health in general would especially be vital in modifying families’ conceptions of appropriate infant feeding. While some religious and cultural beliefs about breastfeeding seem entrenched, important family advocates and religious leaders, if properly educated about exclusive breastfeeding, could be used to modify and/or discourage practices that involve feeding new-borns with herbal products and ritual concoctions.

**Conclusion**
In a patriarchal society, infant feeding and care is family oriented rather than individually centred because the decisions are not made by the biological mother of a child alone. A family’s knowledge and way of participation in infant care heavily influence a woman’s ability to sustain exclusive breastfeeding. The findings of this study also highlight the existence of some beliefs and practices at the family level that impede breastfeeding mothers’ quest to exclusively breastfeed. The study recommends that education should be given to the family on the effect of some of their beliefs system that affect the health of mothers and babies. The study, therefore, recommends that breastfeeding mothers should be educated at their various health facilities on the effects of given concoction to newly born babies.

**Conflict of interest**
There is no conflict of interest in the conduct of this study.

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