



A qualitative exploration of indigenous breastfeeding beliefs and practices among lactating mothers in rural northern Ghana

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Abstract

Background: The World Health Organisation recommends that infants should be fed their mother's milk exclusively for the first six months. However, this is not the case in some underprivileged societies in Ghana.

Objective: This study aimed to explore indigenous breastfeeding beliefs and practices among lactating women in rural northern Ghana.

Methods: A qualitative descriptive design was used to recruit 15 lactating mothers with babies less than six months of age. A semi-structured interview guide was used to conduct in-depth individual interviews. Each interview was audio recorded, transcribed and analysed.

Results: Beliefs and practices before and during breastfeeding were reported. Participants reported that colostrum was not good for their babies, and mothers-in-law were reported as the custodians of these indigenous breastfeeding beliefs and practices. Indigenous breastfeeding practices are prevalent in rural Northern Ghana.

Conclusion: More culturally appropriate breastfeeding campaigns need to be designed to curb negative breastfeeding practices.

Keywords: Breastfeeding, Culture, Practices, Beliefs

INTRODUCTION

The World Health Organization recommends that infants should be exclusively breastfed for the first six months of their lives to attain maximum growth and development [1]. Thereafter, babies should be given nourishing feeds while breastfeeding continues for up to two years or more [2]. This recommendation has not gained the necessary attention in Ghana because of the probable influence of indigenous breastfeeding (IBF) beliefs and practices. For instance, empirical evidence revealed that colostrum is expressed and thrown away because it is believed to be bad for the baby [3-8]. According to Asim and colleagues [4], the elders believe that colostrum is harmful and can cause a wide range of diseases and misfortunes in newborns. Other reasons for not allowing babies to suckle the colostrum are that certain

purifications are believed to be necessary before the baby can start to suckle. While waiting for such traditional initiations to be done, pre-lacteal feeds such as sugar solution, cow milk, honey, and herbal concoctions are given to babies. Postpartum mothers in West Bengal, India, administer warm water to their babies a few hours after delivery as the first feed to welcome them [9]. The findings of these studies suggest that the message of exclusive breastfeeding has not been well received among lactating women in some parts of the world. This implies that the campaign for exclusive breastfeeding may need to be repackaged to address cultural sensitivity in order to achieve the desired impact. A study conducted among postpartum mothers in Australia [10] revealed that the introduction of early complementary feeds is due to pressure from mothers-in-law. Another noticeable IBF practice discovered in the literature is the confinement of postnatal mothers for a number of days after childbirth. Studies among postnatal Chinese and Vietnamese mothers disclosed that after delivery, the woman is not allowed to go out or engage in domestic chores for a period ranging

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from 30 to 90 days [11,12], requiring her to breastfeed her baby often. The Vietnamese postpartum women indicated that the confinement is to avoid being exposed to the wind, which can cause future sicknesses. In a resettlement colony of Delhi [13], it was discovered that most mothers had inadequate knowledge about positioning and attachment, hence were engaged in ineffective positioning and attachment. This resulted in some mothers experiencing sore and cracked nipples, making them dread breastfeeding their babies because of the pain they experienced. This led some mothers to introduce bottle feeding as an alternative.

Studies conducted in some African countries about breastfeeding among lactating mothers also revealed several constraints to the practice of exclusive breastfeeding (EBF). For instance, in Southwest and Northwest Nigeria [13,14], studies indicated a lack of quality support from husbands and pressure from some grandmothers to introduce semi-solid or water alongside breast milk to enable their babies to grow faster. New mothers were also to wait for three days before breastfeeding a male child and four days for a female baby. This was believed to enable the application of herbs to treat the mother's breast in preparation for breastfeeding. Also, a systematic review of breastfeeding practices among mothers in East Africa [15] revealed the practice of delayed initiation of newborn babies to the breastmilk, discarding colostrum and initiation of pre-lacteal feeds were done to enable the mothers to undergo traditional purification rites. These decisions were taken on behalf of the lactating mothers because they lacked autonomy and decision-making powers.

In Ghana, several cultural beliefs affect the way mothers breastfeed their babies. Empirical evidence indicates that mothers who give birth for the first time are not permitted to start breastfeeding their babies until their milk is traditionally tested to identify bad or bitter breastmilk [14, 15,16], which is believed to cause abdominal colic in the infant. Other scholars [16] discovered that bitter or bad mothers' breastmilk is believed to cause malnutrition in babies. To avoid these issues, the first-time mother's breastmilk is expressed into a calabash, and black ants are put into the milk. When the ants come out of the milk alive, it indicates that the mother's milk is wholesome for the baby. However, if the ants die in the expressed breast milk, it means the milk is 'bitter' and toxic for the baby. As a result, when such 'bitter' milk is recognised, traditional rituals are performed to cleanse the breast milk before the baby is put to the breast. Furthermore, the administration of plain water and herbal concoctions to babies by lactating mothers has also been reported in the literature [14,15]. Though several studies on breastfeeding have been conducted in some parts of Ghana, little is known about breastfeeding beliefs and practices in the northern part of Ghana. This study aimed to explore indigenous breastfeeding beliefs and practices among lactating women in rural northern Ghana.

MATERIALS AND METHODS

Study design and sites

This study used an exploratory qualitative approach to understand participants' indigenous breastfeeding beliefs and practices. This design was appropriate for the study because it allowed the participants to express themselves freely. This paper is an aspect of a larger study. All the participants were natives of Siniensi. Pseudonyms were assigned to participants to help protect their identities. The study was conducted at Siniensi of the Builsa North district. Siniensi is one of the six sub-districts of the Builsa north. The Builsa North district is located in the Guinea Savannah zone of northern Ghana, and it covers an estimated land area of 816.44 km² and constitutes about 12.1% of the total land area of the Upper East Region. The total population of the Builsa North District, according to the 2010 population and housing census, was 56,477 consisting of 27,792 males and 28,685 females [18]. According to the District Health Information Management data for 2018, Siniensi sub-district has low uptake for exclusive breastfeeding coverage in the district [20], which is why this sub-district was chosen for this study.

Sampling

Breastfeeding mothers from Siniensi sub-district with babies less than six months of age were recruited. Mothers who had sick infants were excluded because they were emotionally unstable. A purposive sampling technique was used to obtain a wide range of opinions from fifteen breastfeeding mothers. Each participant was interviewed separately. Data collection ended at the 15th participant because no new information was reported. Information from the 13th, 14th, and 15th interviews was a period called data saturation [19,20].

Measurement

A semi-structured interview guide, developed based on the study aim and the literature reviewed, was used to conduct face-to-face in-depth interviews. The interview guide consisted of open-ended questions which elicited responses from these lactating mothers about their indigenous breastfeeding beliefs and practices. Questions about beliefs and practices included; "what are some of the beliefs regarding how you feed your child?" and "Why do you practice these beliefs regarding how to feed your child?" Probing questions about the role significant to mothers during lactation included; "what is normally done in this community when a woman gives birth?" and "who takes decisions regarding how you should feed your baby?" The interview guide was pre-tested among five lactating mothers in Wiaga sub-district, and a few ambiguities were identified and resolved before the actual data was collected. Data from the pre-testing questionnaires were not included as part of the data for this paper.

Data Collection

Data were collected between January and February 2018. With the help of a volunteer from the sub-district, the lead

researcher recruited the participants from the community. Before the participants were recruited, the aim of the study was explained, and those willing to participate signed or thumb-printed the consent form. The participants were interviewed in Buli (the native language of the area), with each interview lasting between 35 – 45 minutes. With permission from participants, all interviews were audio-tape recorded and transcribed verbatim in English.

Data analysis

The data were analysed using content analysis techniques described by Anderson [22]. At the end of each interview, the lead investigator transcribed the recorded interviews verbatim into a personal computer. The transcripts were then printed out, and many copies were made. The investigators read through the transcripts thoroughly, and all relevant descriptions of the topic of inquiry were marked with a highlighter. From the highlighted areas, each separate unit of meaning was marked. These units were cut out and similar units put together in groups and coded using figures. Each group was initially labelled as a category using keywords or phrases from the highlighted texts. As coding continued, the categories were revised. The entire interview transcripts were read through, and the grouping of similar and unlike units and re-labelling categories were done.

All statements were grouped in units under each category. After reading through the categories, redistribution of unmatched units and re-labelling of categories were conducted. Some categories were collapsed, while others were subdivided as appropriate. The categories were then revised until they were suitable for presentation.

RESULTS

Demographic characteristics of participants

Fifteen lactating women aged between 18 and 38 years participated. All participants were married and had children. Fourteen of the participants were Christians, with one being a traditionalist. Four participants had no formal education, whereas five had primary school education. Two dropped out of Junior High School (JHS), while three completed their education. Only one participant had a Senior High School (SHS) education certificate. Eight participants were peasant farmers, one a housewife, two petty traders and one a hairdresser. Two participants were seamstresses, and one was a certified teacher. The rest of the findings are presented according to the categories that emerged from the data.

Category 1: Beliefs about Indigenous Breastfeeding (IBF) Practices

These lactating mothers enumerated a lot of beliefs that they practised while breastfeeding their infants. Their beliefs were grouped into beliefs before the initiation of breastfeeding and beliefs during breastfeeding.

Beliefs before the initiation of breastfeeding

Almost all the participants had some form of belief about breastfeeding their infants before they started. These

indicated that certain potent herbs are normally used to purify their breast milk before breastfeeding is initiated. Participants said: "If your breastmilk is bitter, we have some herbs in the bush that they will normally get, and when they bring them to you, you will boil them and use part of the herbal water to prepare groundnut soup to drink. An elderly woman will use the remaining water in the house to wash her breasts morning and evening for 3 to 4 days, depending on the sex of the child. Whiles, they are washing your breast, you will be drinking soup prepared to purify the bitterness, and when your child sucks the breastmilk, it will not be harmful to the baby". The women also reported that their duty during pregnancy is to observe their breasts for signs of "good" or "bitter" breastmilk. "When pregnant with some babies and getting to term, your breastmilk (BM) will leak into your shirts. When the BM is leaking like that, it is a sign that your BM is not good; it is bitter. Thus, when you deliver, they will bring the herbalist to come and treat the breast milk before your baby starts to suck". Furthermore, when signs of "bitter" breastmilk were identified, the milk would be traditionally tested before the baby was allowed to start breastfeeding. A participant shared this: "When I gave birth the first time, the elders said they had to test my breast milk to see whether it was good for my baby to suck or not. So I expressed my breastmilk, and they caught some black ants and put them into the milk. They said when the ants are able to swim out, it is an indication that the breastmilk is good, but if the ants die inside the breastmilk, then the breastmilk is not good. In my case, all the ants were able to swim out of the breast milk alive".

Some mothers indicated that in their tradition, when a baby is born, water is first given to welcome the newborn." Any newborn in this house is considered a visitor and must be welcomed with water. When I gave birth to this child, the first thing we gave to her was water to drink. After that, I introduced her to breast milk". Newborn babies feeding on colostrum was one of the practices perceived by these women as bad. Sika described it in the following statement. "To me, that milk (colostrum) is not good and dirty. When you deliver, they will bring someone to squeeze that milk out using some herbs. Whiles that process is ongoing, the baby will be fed with cow's milk or baby foods from the market until the breast purification process is over. When that milk is complete, the milk that will now flow is considered as clean milk".

Beliefs during breastfeeding

Beliefs during the period of breastfeeding were also articulated. Some of the beliefs the women reported were about the quality of breast milk produced. In order to stimulate the production of quality breastmilk for her baby to suck. A participant said: "There are some particular trees that we cut their barks and use to prepare soup to drink to aid the production of quality breastmilk. When I gave birth, I asked my husband to get me those herbs which I was preparing and eating, and because of that, I was able to produce a lot of quality breast milk for my

baby to suck". These women believed that regularly administering certain herbal concoctions to their babies could prevent abdominal pains in the newborn. This was a general belief held by the majority of these women. Two of the participants said: "giving herbal water to my baby is good. It helps to protect the baby from getting stomach pains. It also aids the baby's intestines to loosen to allow the dirt in her stomach to be washed out, thereby making the baby healthy". "My child was always stretching herself and crying, and my sister-in-law said it was the baby's intestines that were loosening, which is why the baby was doing that. I then bought some herbs known as elephant's intestines from the market, which I boiled and gave the child to drink to help loosen the intestines so that all the dirt in the stomach could come out".

The majority of these women believed in the early initiation of water and food for their babies. They indicated that waiting for a baby to be as old as 6 months before introducing water and food is not a good practice. Adjoa said, "I had seen someone's child who wasn't given water to drink when he was born until the sixth month. The child grew so very well and fast, but he drinks a lot of water anytime he has a fever. He drinks water almost every second, and I think that is a worry. Seeing this, why won't I give water to my baby to start drinking early?". What a participant said about initiating early feeds for her baby as against what the community health nurses have been teaching her: "The community health nurses say we should wait for the child to reach 6 months before we introduce her to water and food. However, I think you should not wait till 6 months before you give the child food. You can start giving the baby light porridge when she is around 2 months so that by the time she will be 6 months she can now eat well". Some of the beliefs reported by these women had to do with the positions used during breastfeeding. "When you always lay down to breastfeed your baby, and your breast milk flows into your baby's ears, it will cause soreness in your baby's ear, with fluid coming out of it. Children who are grown and are having this sickness, when you see them, you will notice that dirty, smelly fluid coming out always from their ears and this is because their mothers did not know and were always laying down for their children to suck".

Category 2: Opinions of significant others about breastfeeding

Significant others, such as mothers, mothers-in-law, and other older women living in the community, were involved in caring for the newborn and the mother. Participants stated that immediately after childbirth, they were encouraged by these significant others to drink warm water for a good flow of the lochia and initiation of breastmilk production. Abena said: "When I gave birth to my baby, the old women instructed me to drink hot water all the time so that the retained fluid (lochia) in my stomach could melt and come out. They said if I do not drink the hot water and the fluid does not flow out, my stomach will remain big as if I was still pregnant, and it will affect my health, and I may not be able to breastfeed

my baby properly. That was why I had to drink the hot water for about a month". Their significant others never allowed them to go out until a traditional rite called "pomsika" (blowing) was performed. "Pomsika" is an initiation rite performed to welcome a newborn baby into the family lineage. One participant said: "The elderly people in our house told me that if they have not performed the pomsika and I go out to meet the person who does it, it will affect my health. They even said I might die. This is the reason why when I gave birth and stayed indoors for 3 days without coming out".

DISCUSSION

Traditional beliefs and practices surrounding breastfeeding were highly prevalent among these women. Beliefs about breastfeeding were categorised into beliefs observed before the initiation of breastfeeding and beliefs during the period of breastfeeding. The mothers described beliefs they had before initiating breastfeeding as crucial because these beliefs directly impacted their babies' lives. Most participants, especially those who gave birth for the first time, believed that the "bitter" or "bad" mother's milk [14,23] caused abdominal pains in the babies. Other investigators in Ghana also discovered this bitter or bad breast milk belief [15,16]. This practice is most likely to be one of the reasons for the introduction of pre-lacteal feeds among the majority of the breastfeeding mothers studied. If breastfeeding women must wait to have their milk tested, they will definitely have to give their babies something to eat to sustain them. According to the women, a way of detecting "bad" or "bitter" mother's milk was if any woman leaks milk into her dress during pregnancy. To purify the bad milk, herbal water is used to wash the breast in the morning and evening for a period of three to four days, depending on the sex of the baby, as also reported in the literature [3]. While all these practices are being done, the baby will be fed cow milk and herbal concoctions.

We also discovered in this study that many of the mothers expressed and discarded the colostrum part of their milk whether it was traditionally tested as bitter or not. Others engaged in traditional rites of mother's milk purification, which led to diarrhoea in those mothers. This belief about colostrum purification is consistent with several studies conducted both in Ghana [15] and abroad [4,8]. The practice of discarding the colostrum of the mother's milk comes in favour of the introduction of pre-lacteal feeds. Consequently, it is imperative that lactating mothers are made aware of the enormous benefits of colostrum for their babies. It was discovered that before most of the mothers introduced their babies to their breastmilk, water was first given to the babies as a sign of welcoming them, and this was also found among rural West Bengal postpartum mothers of India [9]. This practice is even more pronounced in the northern part of Ghana, where the research was conducted. Adherence to strict dietary practices by lactating mothers was also revealed. The use of herbs to prepare soup and other foods was described as

a practice that enhanced breastmilk production. As part of this adherence, these mothers avoided eating cold foods and drinks because they held the belief that cold food makes their milk cold and causes their babies to vomit. Similar beliefs were reported among Chinese postpartum women [11]. We also discovered that the majority of the participants administered herbal concoctions to their babies to cleanse their stomachs, as reported in the literature [15]. Some of these mothers were of the view that their babies needed to be given water to drink alongside their mother's milk because they believed that human milk could cause thirst in babies. Many women introduced their babies to solid foods as early as 3 months, as reported in Australia [10]. Confining postpartum mothers for three to four days was another belief the women practised, which was also reported among postnatal Chinese and Vietnamese mothers [11,12]. However, the number of days Chinese and Vietnamese mothers were confined was longer than the days found in the present study.

The practice of confinement is healthy because it promotes mother and infant bonding. It also affords the lactating mother the opportunity to rest and recover from the stress of childbirth. In this study, improper positioning during breastfeeding is believed to cause ear infections, but other researchers reported improper positioning and attachment to cause cracked nipples, mastitis, and sore nipples [13,24]. Significant others, such as mothers, mothers-in-law, and other elderly women within the community, were reported to have a say in the care and feeding of postnatal mothers and their babies. These significant others start the initiation of breastfeeding practices immediately after childbirth. Studies among Vietnamese and Myanmar's postpartum women revealed similar practices [12,25]. However, unlike the mothers in this study who first drank warm water to initiate breastfeeding and free flow of lochia, Myanmar's mothers consumed traditional medicines and engaged in uterine massage to facilitate the flow of lochia. If sustainable development goals 2:2 and 3:2 [26] are to be achieved in Ghana, then more efforts must be put into educating the rural communities to embrace EBF practices.

Conclusion

The study revealed that indigenous breastfeeding practices are prevalent in the Builsa North district despite the numerous breastfeeding campaigns in the district. However, it is difficult for women in this district to give up these indigenous breastfeeding practices because of the compelling influence of their mothers and mothers-in-law. These findings suggest the need to use more innovative and culturally acceptable methods to educate breastfeeding mothers and their significant others about the importance of exclusive breastfeeding.

DECLARATIONS

Ethical considerations

Ethical approval was obtained from the institutional

review board of the Noguchi Memorial Institute for Medical Research of the University of Ghana (NMIMR-IRB CPN 036/17-18) for a broader study on indigenous breastfeeding practices among lactating women. This paper is an aspect of that larger study. Permission was also granted by the Builsa North Health Directorate, the Head of the Siniensi Health Centre and the Chief of the Siniensi community.

Consent to publish

All authors agreed to the content of the final paper.

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None

Competing Interests

No potential conflict of interest was reported by the authors.

Author contributions

Under the supervision of FN and MA, A.M conceptualised the idea, drafted the proposal after an intensive literature review, sought for ethical approval, collected data, joined the team to analyse the data, and proposed the first draft of the manuscript. The paper is an aspect of a master's thesis research conducted by AM. FN was the primary supervisor of the thesis. FN supervised the entire research process; reviewed all drafts of the proposal before submission to the ethics board, supervised the data collection process, led the data analysis team, reviewed all drafts of this manuscript, and gave the final approval for submission. MA was a secondary supervisor of the thesis research; reviewed all drafts of the proposal before submission to the ethics board, was a member of the data analysis team, reviewed all drafts of this manuscript and approved for submission.

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Availability of data

Data is available upon request to the corresponding author.

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