Incorporating cultural beliefs in promoting exclusive breastfeeding

By Kathryn Reinsma, Nancy Bolima, Florence Fonteh, Patrick Okwen, Daniel Yota and Susanne Montgomery

Abstract

***Introduction*: Since 2003, the World Health Organization has recommended exclusive breastfeeding for the first 6 months of life. In the Northwest region of Cameroon approximately 90% of women initiate breastfeeding, yet only 34% of these women exclusively breastfeed for the recommended six months. *Aim*: To determine influences on women's exclusive breastfeeding practices. *Methods*: Semi-structured interviews were conducted with six women and six men followed by focus group discussions with three groups of women and three groups of men in the Kumbo West Health District, Northwest region, Cameroon. All participants were selected using theoretical sampling to assure triangulation. *Results*: Three themes emerged that influence exclusive breastfeeding practices: woman's readiness to exclusively breastfeed; cultural influences towards exclusive breastfeeding; and perceived constraints to exclusive breastfeeding. *Conclusion*: These emergent themes were used to create a theoretical framework that is useful for developing a breastfeeding health education intervention in non-Western settings.**

Exclusive breastfeeding, defined as providing breastmilk to the infant as the sole form of nutrition for the first 6 months of life, is one of the single most effective preventive interventions that has the potential to save 1.3 million lives worldwide each year (World Health Organization (WHO), 2004; Bai et al, 2009). While breastfeeding is an accepted practice in most developing countries, it is often undertaken as mixed feeding, defined as providing breastmilk in conjunction with other foods or liquids (WHO, 2004; Hoffman et al, 2009; Mayor, 2011). Mixed feeding increases the risk of infant morbidity and mortality because it introduces risks from unhygienic food preparation practices. Bacteria and other contaminants may be introduced into the infant's gut and may cause inflammatory responses with subsequent damage to the gut mucosa, resulting in diarrhoeal and upper respiratory tract infections (WHO, 2004; Tournoud et al, 2008). Since 2003, WHO has recommended exclusive breastfeeding for the first 6 months of life; however, exclusive breastfeeding for the recommended time frame is low even in countries with high rates of breastfeeding initiation (Imdad et al, 2011; Mayor, 2011).

Cameroon is a sub-Saharan African country bordering Nigeria, Chad, Central African Republic, Congo, Gabon, and Equatorial Guinea. According to the Cameroon Demographic Health Survey 2004 (Institut National de la Statistique and ORC Macro Ltd, 2006) and the United Nations Children's Fund (UNICEF) (2011), among children less than 6 months of age, an estimated 21% are exclusively breastfed, 36% are given liquids other than breastmilk, and 23% receive solid food in addition to breastmilk and/or water. In the Northwest region of Cameroon, approximately 90% of women initiate breastfeeding; however, only 34% of these women exclusively breastfeed for the recommended 6 months (Kakute et al, 2005; WHO, 2009).

Improving breastfeeding practices requires behaviour change. Health behaviour theorists in Western cultures have created models and theories to predict health-related behaviours and to design, create, and evaluate health education interventions. Most are individually oriented and based on the assumption that behaviour change occurs through the giving of information, rational discussion, and skill development resulting in the individual's changed attitudes or beliefs and ultimately changed behaviour (Odutolu, 2005; Bezner Kerr et al, 2008). However, these Western models often overlook and marginalize the unique social and cultural contexts in developing countries that are less individualistic, where extended family structure is prevalent, and local normative structure is dominant (Odutolu, 2005; Bezner Kerr et al, 2008). As Odutolu (2005) noted, African culture is not resistant to change, but the process is complex and beyond an individual's decision.

Health education theories developed in Western cultures provide a useful starting point for designing a behaviour change intervention, but they must be adapted for use in non-Western cultures. Breastfeeding takes place within an extensive network of social, familial, and cultural influences that must be considered if efforts to promote exclusive breastfeeding in a developing country are to be successful (Göksen, 2002; Kakute et al, 2005; Odutolu, 2005; Nankunda et al, 2006; Scavenius et al, 2007; Fjeld et al, 2008; Hoffman et al, 2009; Otoo et al, 2009; Engebretsen et al, 2010; Marques et al, 2010; 2011; Arts et al, 2011; Tomasoni et al, 2011).

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In this study, the researchers used qualitative grounded theory methodologies to develop a local theory and framework to explain the influences on women's exclusive breastfeeding practices in Cameroon. This framework guided the development of a later health intervention and identified areas for further inquiry.

Method

Study population

This study was completed in the Kumbo West Health District, Northwest Region of Cameroon between February and June 2011. The district serves 173 911 inhabitants who belong primarily to the Banso and Fulani ethnic tribes and identify themselves as Christian, Muslim, or Animist.

Data collection

Grounded theory guided the data collection and analysis. This theory suggests that with proper exploration and analyses, the realities of the target group emerge. Theoretical constructs can then be identified and a theory created that bests fits the explored context, unlike using an existing theory-driven approach whereby one would 'force' reality to fit a prescribed theory (Corbin and Strauss, 2008). Four investigators trained in qualitative research methodologies and protection of human research subjects utilized semi-structured interviews and focus group discussions (FGDs) to collect data. The discussions and interviews explored existing exclusive breastfeeding knowledge, beliefs, and practices. Participants had to live within the health district and were informed of the study's purpose and written consent obtained before the interviews and discussions.

Semi-structured interviews using pilot-tested open-ended questions were conducted with 12 participants who were selected using theoretical sampling to assure triangulation: two breastfeeding women, one older Christian woman (over 50 years of age), one older Muslim woman, two husbands of breastfeeding women, one older Christian man, one older Muslim man, and four health workers knowledgeable about the population and breastfeeding. Only one person refused because he did not have time for the interview. The interviews were conducted in Pidgin English by interviewers fluent in the language, except for the interviews with the health workers, which were conducted in English. After obtaining the participant's consent, the interview was tape-recorded. The interviews ranged in length from 45–90 minutes.

To validate the findings of the semi-structured interviews, six FGDs were conducted using a set of open-ended questions. Using theoretical sampling participants were recruited from three health centres and the district hospital through the antenatal care nurse. One focus group was conducted with rural Muslim men, one with rural Christian men, one with urban Muslim and Christian men, one with rural Muslim and Christian women, one with urban Christian women, and one with rural Christian women for a total of 31 female and 35 male participants. Each group was conducted by trained facilitators and observers and had about 10–12 participants each. All FGDs utilized Pidgin English and some Lamso (the local language). At the beginning of each FGD the facilitator discussed the importance of confidentiality and obtained verbal consent from the participants. The discussions were tape-recorded and lasted from 45–90 minutes. After six FGDs the investigators felt no new information emerged and saturation was reached.

Data analysis

All of the data from the FGDs and semi-structured interviews were transcribed verbatim and translated into English. Three investigators used the computer 2010 software programme MaxQDA (Verbi, Marburg, Germany) to code the transcript

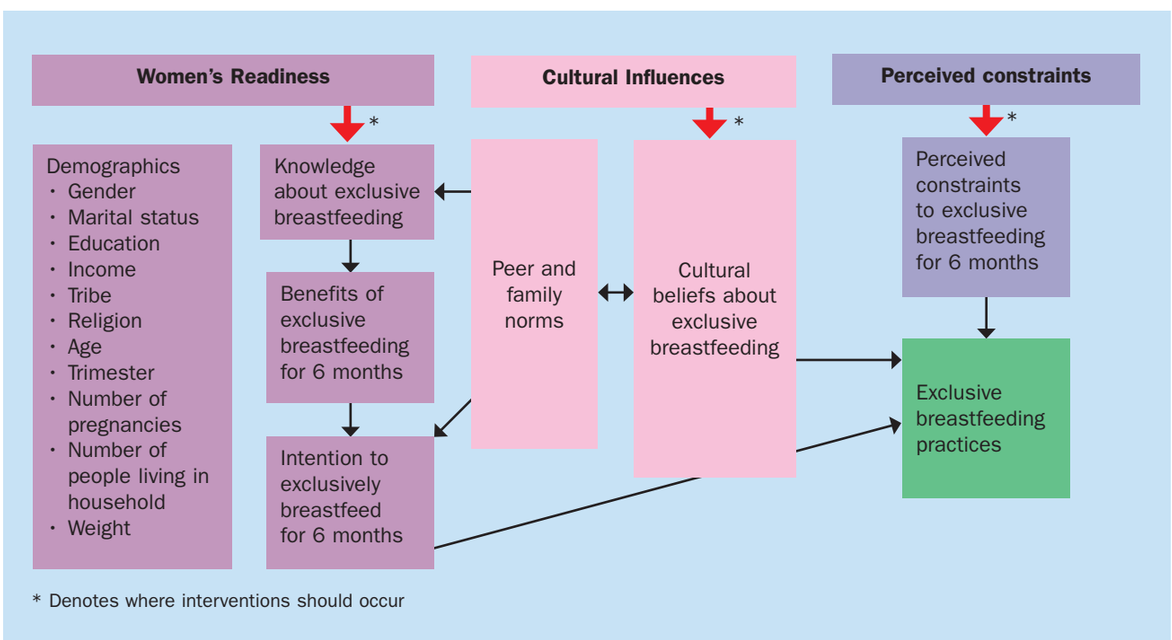

Figure 1. Women's readiness, cultural influences, and perceived constraints theoretical framework.

of one of the FGDs and develop a codebook. Using the agreed codebook, one investigator coded the remaining transcripts and these were validated by the other two investigators, who also added codes as new ones appeared. The team then worked together to group related codes into larger categories and organized these into emergent themes which guided the development of a theoretical framework that was further refined through a series of contextualized discussions between investigators and local health experts. This framework, as shown in *Figure 1*, guided the development of a behaviour change intervention to increase exclusive breastfeeding.

Research ethics

The proposed study was reviewed and approved by the Loma Linda University Institutional Review Board, which has multiple assurances capability.

Results

Based on the semi-structured interviews (SIs) and FGDs, three main themes emerged: woman's readiness to exclusively breastfeed; cultural influences towards exclusive breastfeeding; and perceived constraints to exclusive breastfeeding.

Theme 1: Woman's readiness to exclusively breastfeed

Knowledge about exclusive breastfeeding

The majority of participants demonstrated accurate knowledge about exclusive breastfeeding. When asked what exclusive breastfeeding meant, the most common response was giving breastmilk for the first 6 months of life. As one participant said:

> *'No water, no glucose, not juice is given till after 6 months.' (FGD 1, rural Muslim men)*

Participants named different sources of information about breastfeeding but the most common response was the antenatal clinics (ANC) at the hospital:

> *'When pregnant I always go to the ANC at the hospital. After delivery I go for vaccinations. There they give us health talks.' (SI 8, older Muslim woman)*

Throughout the health district a nurse typically provides a health talk during the antenatal clinic and covers topics such as exclusive breastfeeding, nutrition, malaria, and HIV/AIDS. The advice of nurses and doctors is held in high regard:

> *'It is the doctor who will advise the woman how to feed the child, how to breastfed the child. She will have to accept it.' (FGD 6, rural Christian men)*

The semi-structured interviews with the health workers indicated they provided their patients with accurate education about exclusive breastfeeding:

> *'I tell them that it is important to leave your child for after 6 months before introducing other foodstuffs because at that early stage the child's GI is not yet strong enough to withstand any disease and they may not be confident in their hygienic condition in preparing the child's food so it is good that they keep the child to 6 months at least by that time the child's GI will be strong enough to receive anything.' (SI 11, health worker)*


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In addition to the knowledge and benefits of exclusive breastfeeding, the women's expressed high intentions to breastfeed were also related to the normative breastfeeding practices in the community.

Benefits of exclusive breastfeeding

In addition to acknowledging that exclusive breastfeeding meant only giving breastmilk for 6 months, many participants were aware of the benefits of exclusive breastfeeding compared to mixed feeding. By far the most common benefit named was that the child is healthier:

> *'When a woman exclusively breastfeeds and not add many artificial feeds the baby will be healthy.' (FGD 4, urban Christian and Muslim men)*

The second most common answer was that breastfeeding is more hygienic, thereby the child experiences less abdominal discomfort or diarrhoea:

> *'I prefer breastfeeding because it has no dirts, nothing that can disturb the child. The child can spend the whole day taking only breastmilk and the child will have no problem. But maybe if you are giving the child fufu, it may be dirty or they have not prepared the food well or something like that.' (SI 3, breastfeeding woman)*

Intention to exclusively breastfeed for 6 months

The high degree of knowledge and awareness of the benefits of exclusive breastfeeding influences the women's intention to exclusively breastfeed. Almost all of the women indicated a high intention to exclusively breastfeed for 6 months stating that it was best or healthy for the baby:

'I think I can do it because it is necessary for the child and it is good for the health of the child. When you are giving her breastmilk at that age from 0–6 months, breastmilk is good.' (SI 3, breastfeeding woman)

Theme 2: Cultural influences

Peer and family norms

In addition to the knowledge and benefits of exclusive breastfeeding, the women's expressed high intentions to breastfeed were also related to the normative breastfeeding practices in the community. As one man said:

'Now if they ask you to be buying all those artificial feeding, it is not normal, it is not normal.' (SI 2, older Christian man)

It is expected that all women will breastfeed their infants and considered abnormal to provide formula milk. One FGD participant said that the expectation to breastfeed is so strong that some women will secretly give the infant other food and lie to peers about it:

'Because some women give pap while hiding and refuse that she gives pap. Then she will be saying that she gives only breastmilk for 6 months, which is not true.' (FGD 5, rural Christian and Muslim women)

Cameroon is a communal culture in that extended family members live in close proximity and often influence household decisions such as infant feeding. As one woman said:

'When I left the hospital with my first child, the grandmothers were pressurizing me to give complementary food.' (FGD 3, rural Christian women)

> *This framework suggests that understanding and incorporating cultural beliefs and peer and family norms is central to designing a behaviour change intervention, particularly in developing countries where extended family structure is prevalent and cultural beliefs directly influence health behaviours.*

Cultural beliefs about exclusive breastfeeding

Although participants exhibited a high degree and accurate knowledge of exclusive breastfeeding, respected the advice from health workers who encouraged exclusive breastfeeding, named many benefits of exclusive breastfeeding, indicated a high intention to exclusively breastfeed, and described peer and family norms that support breastfeeding, the disconnect for women not exclusively breastfeeding was partly the result of cultural beliefs and misconceptions. Identified beliefs that negatively influenced exclusive breastfeeding included a belief that a woman cannot have sex while breastfeeding; that a woman cannot breastfeed while pregnant; that breastmilk spoils if a woman spends time away from the infant; and that an infant will refuse complementary foods if only introduced after 6 months.

The most common cultural belief that influenced exclusive breastfeeding practices is that a woman cannot have sex while breastfeeding. In some cases this belief causes women to stop breastfeeding early:

'I will like to say that when some parents decide to have sex and the man ejaculates in the woman the semen goes up to the breast and this has a bad effect on the baby; so they have to stop breastfeeding early in order not to affect the breast and hence the baby; and this can make the baby to be sick.' (FGD 1, rural Muslim men)

For some women this belief places them in a difficult position. They are afraid if they do not have sex with their husbands they will have sex with other women:

'Yes! Some believe that if they (women) leave the husband like that they (husbands) may have sexual relations outside.' (FGD 4, urban Christian and Muslim men)

Similar beliefs also surround breastfeeding during pregnancy and will cause women to stop breastfeeding early:

'If a pregnant woman is breastfeeding the breastmilk is contaminated, if the woman is stubbornly feeding, the baby will soon have kwashiorkor.' (FGD 1, rural Muslim men)

Participants also believed that if they were breastfeeding and had to be away from the infant their milk could spoil. When faced with this situation some women said it was no longer good to give to their baby:

'If you allow the breast overnight, in my opinion, the breast is no longer good for the baby.' (FGD 3, rural Christian women)

Some participants expressed their belief that giving the baby only breastmilk for 6 months was too long and would cause the child to reject other foods later:

'We used to know that mothers could breastfeed for 2 years, but we recently learnt that if a mother delivers she should exclusively breastfeed for 6 months. This has

been problematic because when you want to exclusively breastfeed for 6 months and then you want to introduce other foods like pap the baby will be refusing the food. (FGD 4, urban Christian and Muslim men)

Theme 3: Perceived constraints to exclusive breastfeeding

In addition to these cultural beliefs that prevent women from exclusively breastfeeding, participants named other factors, for instance, the concern that the baby cries too much:

'The people said that some children, when they are crying, immediately when they see that they are so crying you may give them pap (corn-based cereal) around 3 months (SI 5, husband of breastfeeding woman)

Most of the women in the district are subsistence farmers and sometimes leave the baby in the care of family members while they go to the farm. While the mothers are away family members may give the baby other foods:

'But some breastfeed for a month because they do farming before any other thing, if their maize is ready in the farm, she has to go to the farm to get food for the entire family ... She has to leave the child at home rush to the farm. Those at home will give water-chewed food when the child is crying.' (SI 8, older Muslim woman)'

Participants also feared that the breastmilk was not enough food for 6 months:

'The breastmilk opens the baby's system and then the baby needs more food; so we should give a bit more food, I give potatoes. Something which is strong to hold the belly; the breastmilk is just like water and doesn't hold the tummy well.' (FGD 5, Christian rural men)

Discussion

The salient finding of this research is the centrality of cultural influences on exclusive breastfeeding practices, which is similar to results in other sub-Saharan African countries (Kakute et al, 2005; Fjeld et al, 2008; Bezner Kerr et al, 2008; Otoo et al, 2009; Arts et al, 2011). Using grounded theory methods the researchers integrated the results into a theoretical framework that depicts the factors influencing exclusive breastfeeding practice (*Figure 1*).

This model differs from the more Western-based behaviour change theories often used to predict breastfeeding practices because it does not suggest a linear link between individual cognitions, beliefs, attitudes, intentions, and ultimately the desired health behaviour (Fishbein and Yzer, 2003). Instead, the researchers found that while women's intention to exclusively breastfeed could be high, their cultural beliefs and perceived constraints more directly influence their exclusive breastfeeding practices. If a woman has high intentions to exclusively breastfeed, but believes that her husband will go out and have sex with other women if she doesn't have sex with him, she will stop breastfeeding. Or, despite her intentions to exclusively breastfeed, if the baby is crying too much, she herself, as well as others around her, will fear that her breastmilk is not enough and she will stop exclusive breastfeeding. This is often validated by other influential women as well as by husbands/partners who have a strong influence on women's decision-making.

This framework suggests that understanding and incorporating cultural beliefs and peer and family norms is central to designing a behaviour change intervention, particularly in developing countries where extended family structure is prevalent and cultural beliefs directly influence health behaviours. Providing education to women through ANC is important and should be continued, but innovative health education techniques should be used to concentrate not only on the women alone, but also to educate other family members who influence women's breastfeeding decisions or provide food for the infant while the mother is away. The researchers do not suggest designing an intervention with the purpose of changing cultural traditions. Indeed, many of the 'old' traditions are very supportive of this message. However, it is suggested that behaviour change interventionists take the time to understand cultural beliefs so that misconceptions, such as sex or pregnancy spoiling breastmilk, may be corrected as part of a comprehensive approach.

In addition to understanding and incorporating cultural influences and providing accurate information for a behaviour change intervention, our framework also implies the necessity of understanding the perceived constraints toward the health behaviour. This then provides the opportunity for the health interventionist to provide suggestions of how to overcome the perceived constraints. One of the most often named constraints to exclusive breastfeeding was that a baby cried too much because it is hungry and the mother's milk is not sufficient. One health worker suggested this constraint is perceived because women often do not know that the baby could be crying for other reasons besides hunger. A health intervention that helps women overcome perceived constraints, such as identifying other reasons for crying and providing solutions about what to do when a baby cries, is another way of improving exclusive breastfeeding practices.

This framework is based on interviews and discussions from a systematic sample of women and men in one health district in Cameroon. Further research is needed to determine the interaction between cultural influences, perceived constraints, and a woman's readiness to breastfeed exclusively in other settings.

Key Points

- Although many women in Africa initiate breastfeeding, rates drop when it comes to exclusively breastfeeding for 6 months
- Encouraging women to exclusively breastfeed involves behaviour change
- Health behaviour change theories developed in Western cultures may not be applicable for designing behaviour change interventions in non-Western cultures
- Using grounded theory methods the researchers developed a framework that provides a guide for developing an exclusive breastfeeding intervention in non-Western cultures

Conclusion

This framework provides a guide for developing a health intervention in non-Western settings that are less individualistic and are more heavily influenced by communal peer and family norms. It is suggested that, for a health intervention to be successful in this context, an understanding of cultural influences is central so that these can be positively leveraged for health behaviour change. Health education for pregnant women with the purpose of increasing intention to exclusively breastfeed is not enough. Instead, it is proposed that health behaviour change interventions impart knowledge, correct misconceptions, incorporate peer and family norms, and provide suggestions to overcome perceived constraints. **AJM**

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