

Full Length Research Paper

A study investigating infant and young child feeding practices in Foni Kansala district, western region, Gambia

Njai, M.* and Dixey, R.

Ministry of Health and Social Welfare, Medical Headquarters, Banjul, Gambia.

Accepted 25 October, 2011

It has been documented and a well-established fact that good nutrition including appropriate infant and young child feeding practices is central to the growth and development of all infants and young children. A study to investigate infant and young child feeding practices was conducted in Foni Kansala District, The Republic of The Gambia. The overall aim of the study was to explore the situation of infant and young child feeding practices that are prevalent and perceived effective in promoting the health and nutritional status of young children in the study area. A total of three focus group discussion (FGDs) and five in-depth interviews were conducted, and interviews were conducted in natural settings. Purposive sampling technique was used to recruit the participants. Thematic analysis approach was used to analyse the responses from the interviews. The results of the study found that exclusive breastfeeding up to six months was rarely practiced in the area due to strong cultural and traditional beliefs and inadequate information on the importance of exclusive breastfeeding. Colostrum was perceived as impure and unsafe to be given to the infant. Breastfeeding is the most common method of infant feeding, while bottle was practiced by only two mothers who participated in the FGD. Initiating breastfeeding after delivery is usually delayed due to cultural and traditional practices and the involvement of partners. The role of health workers, opinion leaders, traditional communicators, NGOs and grand mothers in supporting mothers to adequately feed their infants have been highly valued in the area. In addition, increased workload of women, maternal illness or death after delivery, breast milk insufficiency and the involvement of grand mothers, husbands, friends and other family members play an influential role in the early introduction of complementary foods to infants. Also, mothers' socio-economic status, culture and tradition have been found to have an influence on early introduction of complementary foods. This article presents an analysis and summary of the data collected during the course of the explorative research conducted in the study area.

Key words: Infant, feeding practices, complementary feeding.

INTRODUCTION

Malnutrition contributes to more than half of all under-five childhood deaths throughout the developing world; and has been responsible directly or indirectly for about 60% of the 10.9 million deaths annually of which over two-

thirds of these deaths; are often associated with inappropriate feeding practices, occurring during the first year of life (WHO and UNICEF, 2003). An estimated 54% of all under-five deaths in developing countries are

associated with malnutrition resulting from poor feeding practices in the first year of life (Sagoe-Moses and Ketsela, 2005). The associated effects of poverty, inadequate household access to food, infectious disease, and inadequate breastfeeding and complementary feeding practices often lead to illness, growth faltering, nutrient deficiencies, delayed development, and death, particularly during the first two years of life are a major obstacle to sustainable socio-economic development and poverty reduction (WHO and UNICEF, 2003). The promotion of exclusive breastfeeding in resource-poor settings has played a critical role in improving child health by providing optimum nutrition and protection against common childhood infections (Suryavanshi et al., 2003; McIntyre et al., 2002).

General background information on breastfeeding

Breastfeeding is the first fundamental right of the child. The early initiation of breastfeeding and the timely introduction of adequate, safe and appropriate complementary foods in combination with continued breastfeeding are of paramount importance for the growth, development, health and nutrition of infants and children everywhere (Kulkarni et al., 2004; Giovannini, 2004). Exclusive breastfeeding during the first six months of life has been identified as one of the key interventions for reducing childhood deaths (Bahl et al., 2005). The adoption of recommended breastfeeding and complementary feeding behaviours and access to the appropriate quality and quantity of foods are essential components of optimal nutrition for infants and young children between ages 6 and 24 months (Lutter and Rivera, 2003).

The choice to breastfeed is influenced by many factors such as: breastfeeding physiological advantages for mothers, fear of dependency, moral reasoning and advertisement of breast milk substitutes (Chabrol et al., 2004). Decisions about infant feeding are often based on the social and economic environment in which women live (Liamputton, 1998). Demographic factors such as older maternal age, higher level of maternal education, prim parity and family income are strongly associated with choice, initiation and duration of breastfeeding (Manan, 1995; Barnes et al., 1997; Smith et al., 2003; Casiday et al., 2004; Ergenekom-Ozelci et al., 2001; Foo et al., 2005). Mother's attitude towards infant feeding is associated with their parent's attitudes (Littman et al., 1994; Giugliani et al., 1994; Shepherd et al., 2000). Father's nonsupportive or negative behaviour towards breastfeeding discourages their female counterparts from attempting to initiate early breastfeeding (Shepherd et al., 2000). Mothers may also have negative attitudes or perceptions of breastfeeding, the bulk of which arise from media representation (Henderson, 1999), such as that it

is inconvenient and embarrassing (Earle, 2000; Zimmerman and Guttmann, 2001). A study in Nicaragua found out that a man's positive or negative attitudes towards breastfeeding can easily influence a woman's breastfeeding behaviour (Espinoza, 2002). Similarly (Bryant et al., 1992; Bentley et al., 1999) found that men may disapprove breastfeeding if they believe it will interfere with sexual activity; if it will make women lose their breast shape or cause women to expose their breasts in public. Cultural beliefs have a significant influence on breastfeeding practices which are harmful to infants and young children in their early lives (Ergenekom-Ozelci et al., 2005). Among ethnic groups, culturally based feeding beliefs influence how individual mothers make decisions (Li et al., 2005). Infant feeding practices are associated with the context of ethnic and cultural beliefs (Ergenekom-Ozelci, 2005). The reasons for failure to exclusively breastfeed for the recommended six months of life include health systems practices and community beliefs that delay the initiation of breastfeeding and the lack of support for women in resolving difficulties with breastfeeding (Quinn et al., 2004).

The factors associated with early cessation of breastfeeding and/or early use of complementary foods is considered to be: milk insufficiency or perceived insufficiency, maternal employment, breast-related problems, maternal illness or death and infant illness or prematurity (Walker and Adam, 2000). Similarly, the study of Tuttle and Dewey (1994) found that the most common reasons for mothers not exclusively breastfeed their infants include work or school, convenience, ability for others to feed their infant, and concern about insufficient milk after delivery.

Information background on breast feeding in the Gambia

In the Gambia, it is estimated that 36% of children aged less than four months are exclusively breastfed and 36% between the ages of 6-9 months receive breast milk and solid or semi-solid foods (MICS, 2002). The way mothers feed their children in rural Gambia are closely associated with their traditional beliefs and practices (Semega-Janneh et al., 2001; NaNA, 2000). Breastfeeding in The Gambia as in many African countries is part of the culture with mothers often breast feeding for long durations. Generally, Gambian mothers breastfeed their infants for 18 to 24 months, but the initiation of breastfeeding is usually delayed until 24 h and beyond after delivery, while prelacteal feeds are more common. The adoption of the BFCI strategy contributed to the increase in the national average of exclusive breastfeeding from 0 in 1989 to 17.4% in 1998 to 36% in 2000 (NaNA, 2002); an 41% in 2006 (MICS, 2006).

Table 1. Number and type of respondents in the FGD.

No. of Interviews	No. of participants	Type of participants	Type of Interview
2	12	Breast feeding mothers	FGD
1	6	Grandmothers	FGD

Table 2. Number and type of respondents for the In-depth interview.

No. of Interviews	No. of Participants	Type of Participants	Type of Interview
1	1	Nurse Midwife	In-depth
2	2	Community Health Nurse- CHN	In-depth
1	1	Traditional Communicator-TC	In-depth
1	1	Traditional Birth Attendant-TBA	In-depth

METHODOLOGY

Background information on the study area

The study area has a total population of 11,353 inhabitants with 1,183 households and a total area of 144.73 (Sq km) (CSD, 2003). The study was conducted among a population belonging to the Jolla ethnic group, but other languages are widely spoken in the area which alleviated the language barrier. In this area, educational level is very low; electricity is not available in many villages, water supply is provided by means of hand pumps and open traditional wells and firewood is the main combustible used for cooking which is mainly collected by women. In addition, culture, food taboos, beliefs and traditions regarding infant and young child feeding are well preserved and child care is the responsibility of older siblings or grand mothers who it is argued neither can take care of themselves nor the children.

Focus Group Discussions (FGDs) were conducted in 3 randomly selected communities in the District. The conduct of only 3 FGDs was based on financial and time constraints and also the recommendations set out by researchers. Although Bowling (2002) pointed out that there are no specific guidelines about the number of focus groups to aim for.

In addition to the FGD, in-depth interviews were conducted with health workers including a nurse midwife and two community health nurses, a community health worker and traditional communicator in the district because the purpose of the study is to uncover and describe the participants' perspectives on infant and young child feeding. In-depth interviews are one of the main methods of data collection used in qualitative research.

FGD and in-depth interview guides were developed and the discussions were centred on the common feeding practices, barriers to breastfeeding promotion and initiation. The discussion guides were used to generate a rich understanding of participants' experiences and beliefs on infant and young child feeding. The information obtained from the FGDs was supported by in-depth interviews and review of published literature on infant feeding practices. FGDs and in-depth interviews are useful techniques for exploring cultural values, and beliefs about health and disease (Bowling, 2002). The FGD and the in-depth interview involved women from 3 randomly selected communities in the District and the main criteria for selection of the study area was based mainly

on the knowledge of the area, cultural practices and the high prevalence of under nutrition among infants and young children.

A total of 18 women with children under the ages of one year were recruited to take part in the FGD, while 3 health workers and 1 community health worker and 1 traditional communicator were identified to take part in the in-depth interview. Each of the FGD sessions comprised of 6 participants. FGDs are frequently conducted with purposively selected samples in which the participants are recruited from a limited number of sources.

Although there are no specific rules regarding the sample size in a purposive sampling, often the sample size is usually very small (Patton, 1990). In purposive sampling, the selection of the sample size depends upon what the researcher want to know, what will be useful, what will be credible, and what can be accomplished within the time and resources available at the time of the study (Patton, 1990). One good thing about purposive sampling is that the sample size may change as the study progresses (Patton, 1990). This was not the case with this study because the sample size did not change as the study progressed. Thus, the sample size remained 18 women for the FGD and 3 health workers and 1 community health worker and 1 traditional communicator throughout the study.

The study was conducted in two phases among the following respondents details of which can found on Tables 1 and 2.

1. Phase One: The first phase of the study include the conduct of two FGDs with breastfeeding mothers in only two locations in the district, while one FGD was conducted with the grand mothers. Although the author intended to include more FGDs on both breastfeeding mothers and grand mothers, but because of time factor this could be accomplished. The other factor was that the study was done in the middle of the rainy season thus makes it difficult to get more people to participate in the study.

2. Phase Two: The second phase of the study was conducted a week after the conduct of the FGDs. A total of five (5) in-depth interviews were conducted with a nurse midwife attached to the hospital, two (2) Village Health Service Community Health Nurses supervising Primary Health Care Strategy in the study area, one (1) traditional communicator involve in disseminating health and nutrition messages in the study area and one (1) Traditional Birth Attendant (TBA) involving conducting deliveries in one of the communities in the study area (Table 2).

Leeds Metropolitan University (LMU) Ethical Committee approval

was required before the start of the study and clearance for the conduct was made available through my research supervisor. In addition to the LMU Ethical approval, clearance was given to conduct the study by the Director of Health Services of the Republic of The Gambia on behalf of the Ministry of Health and Social Welfare, who was the chairperson of the joint MRC/MoH Ethical and Scientific Review Committee (Appendix). Consent was obtained from the respondents by engaging them to sign the consent forms. As most the respondent could not read and write, the consent forms which included the research aim, confidentiality and anonymity, were read to them before the start of the interview. They agreed to take part in the study by thumb printing representing their approval to take part in the study. For those who were able to read and write just went through the consent and signed to take part in the study.

As a matter of Gambian tradition, FGD participants were not paid in cash, but cola nut was given to each of the three groups after the session as a sign of gesture of appreciation for their participation in the study. It is ethical to give cola nut to research participants in The Gambia because it is part of respect, culture and social symbols in the communities. In order to address the issue of reliability and validity during the study, the FGD and the In-depth interview guides were pre-tested among a group of women of the same characteristics with the study respondents. Purposive sampling method was used in the study because this method aims to sample a group of people, or settings, with a particular features or characteristic (Bowling, 2002).

The communities were notified through the village heads who then informed the required participants for their participation in the study. The information collected from the FGDs and the in-depth interviews were recorded, transcribed and analyzed using conventional techniques for qualitative data and the most commonly used was thematic analysis (Wilkinson, 2004). Thematic analysis approach was used to derive patterns in the responses given by the respondents during the FGD and the in-depth interviews. The transcripts were then read and the key themes and concepts were drawn from each of the transcripts and the categories derived under each theme (Bowling, 2002).

RESULTS

The study on infant and young child feeding practices was conducted in the Foni Kansala District in Western Region of the Republic of The Gambia. A total of 3 FGDs were conducted in three communities namely: Kanfenda, Sangajor and Kankuntu villages. In the former two communities, FGDs were conducted with women of children age less than one year, while in the later community; FGD was conducted with grand mothers. In addition to the FGD, a total of 5 in-depth interviews were conducted with three health workers namely: 2 CHNs from Kampant and Sangajor and a SEM at Bwiam Hospital, while 1 CHW from Njomokunda and 1 TC from Bwiam.

The results obtained from the FGDs and in-depth interviews cannot be whatsoever be generalised. FGDs are not a good source of data on group behaviour or attitudes, because it cannot validate findings from other methods. The major disadvantage of a FGD is that the samples are typically small and may not be representative

to the general population. The fact that focus groups are driven by the researcher's interest makes it a source of weakness. The main weakness of this study is that it does not attempt to use the information collected to represent the entire Region or Country. Women who had never had children were excluded from the study, because the target was women with children at the time of the study. Among the women who took part in the study, there was no age limit attached to the selection criteria. The women who took part in the study are between the ages of 25-35 years. The responses from the women, grandmothers, health workers and community health workers revealed several themes, the discussion of which can be found below:

Perception and experiences of mothers and grand mothers

Knowledge about infant feeding practices

Comments under the above theme varied this way and the experiences of certain mothers on infant feeding practices were also mentioned.

“For me just to give the child breast milk and then other foods that make the child look healthy and strong” (FGD-Mother).

“Sometimes these feeding practices are done in a way of breast feeding the child. You know there are different ways a child is fed in this community, but some are good and some are not good because of the way it is done” (FGD-Mother).

Preferred method of infant feeding

The comments varied this way:

“Some women breastfeed immediately when they deliver, but some women do not practice this method, you know... for some mothers they do practice late initiation of breast feeding” (In-depth Interview-TBA).

“Breast feeding is most common method of infant feeding in this community, unless the mother is very sick that breast feeding cannot be practice” (FGD-Grandmother).

“For me breast feeding of the child is more common in this community, because when a mother delivers newly she is advice by other family members to give breast milk to the child” (FGD-Mother).

Early introduction of water and other liquids

The comments on early introduction of water and other

liquids varied this way:

“You know women here just breast feed just for few days and then start giving other liquids and foods to the child, because this makes the child very strong and healthy” (FGD-Mother).

“Grandmothers usually say if a baby does not drink water for six months and he or she happens to be given water after six months the baby can die and if one does not give a crying child food the child will not stop crying” (In-depth Interview- TBA).

“For me if the child is born and does not drink water, he or she will be very *stubborn and aggressive* that is why mothers are advice to give water and other liquids to the child as early as two months so that the children will not be aggressive when they grow” (FGD-Grand mother).

Reasons for delay or late initiation of breastfeeding

The comments for late initiation of breast feeding varied this way:

“Here majority of mothers do initiate breast feeding within one hour after birth, but yet still some mothers do delay the initiation of breast feeding after birth. Some mothers do give *charm water* (It is water prepared by the marabous or someone who knows the Holy Quran by quoting a verse, write it on a piece of paper and then put in water for the someone to drink which is believed to protect the individual from evil spirits) to the child to drink first which is usually prepared by the *marabou* in the area before breast feeding is initiated” (In-depth interview – CHN).

“Some mothers will tell us different stories when we ask them whether they put their babies to the breast immediately after delivery. They normally say that they will have to wait for signal from their mothers-in-laws or husbands before they initiate breast feeding” (In-depth interview-Nurse Midwife).

Belief that colostrum is impure and unsafe

Comments on the misconception of colostrum varied this way:

“Some mothers do express breast milk in a cup and then put an *ant* in it and if the *ant* dies that means the child should not be breast feed with that milk. They normally say the yellow milk is not good for the child. This is still a deep rooted practice in certain communities” (In-depth interview-TC).

“When a woman deliver we do advice the mother to wash

the breast, sometimes the breast of some mothers do contain *stone* in them and when that happen a *cassava* leaf is boiled and used to wash the breast that contains the *stone*” (FGD-Grandmother).

Perception on the advantages of breast feeding over bottle feeding

Comments on the advantages of breast feeding over bottle feeding varied this way:

“Exclusively breast fed child grows faster than the one who has not been exclusively breast- fed” (FGD-Mother). “You know some of these formulas are made out of animal milk and in our tradition here we do say that a mother who gives animal milk to her child, the child behaves like an animal, does not grow well and keeps on being sick at all times” (In-depth interview- TC).

“Exclusive breast feeding cannot be compared to bottle feeding because it is very much expensive to practice bottle feeding and it is very difficult to maintain it clean and it is really time consuming” (In-depth interview-CHN).

Supports available to help mothers adequately feed their infants

Issues around support mothers may need to adequately feed their infants were pointed out this way:

“The elders in the community also give support at family level. The support includes child care while the mothers are away to work on the farms” (In-depth interview- Nurse Midwife).

“Grandmothers also support mothers in the homes to adequately feed their children. They ensure that children are well fed by the mothers and they also wash the children. They support in the cooking of children’s foods” (In-depth interview-TC). “For me giving good information on child health is also a good support for mothers” (FGD-Grandmother).

“Health workers do provide support to mothers adequately feed their infants through giving health information to mothers on general child care, which is very good for mothers in this community. The health workers here created a lot of awareness for mothers” (FGD-Grandmother).

Factors responsible for early introduction of solid or complementary foods

The involvement of grandmothers or mother-in-laws

“Here grandmothers are very much respected in this

community and whatever they say to mothers, that is what is practiced. They always advocate for the infants to be given water and other foods as early as two months because they will always say breast milk alone is not enough for the child” (FGD-Mother).

“We as grand mothers of children, we do influence the early introduction of complementary foods to the child” (FGD-Grand mother).

“If the child cries all the time, the grand mothers usually conclude that the child needs food and not breast milk and they start encouraging mothers to introduce complementary foods at an early stage” (In-depth interview TBA).

Husbands, friends and other family members of breast feeding mothers

“Husbands tend to show that they have voice in the community that is why they force some breast feeding mothers to introduce complementary foods so early” (In-depth interview- CHN).

“You know husbands are also responsible for the early introduction of complementary foods to the child, because men are also decision makers in the community” (FGD-Mother).

“Friends of breast feeding mothers are also responsible for convincing other mothers to start complementary foods to babies so early” (In-depth interview- Nurse Midwife).

Increased workload of women (breast feeding mothers)

Maternal employment outside the home and increase workload of women has been found to significantly influence on appropriate infant and young child feeding:

“Women in this community do not rest, because they are always engaged with child care and work” (In-depth interview- CHN).

“During the rainy season, when we are busy on farms and rice fields and we cannot take our children with us, we just leave the children with the grand mothers to take care of” (FGD-Mother).

Maternal illness or death after delivery

The well-being of the mother has been identified as an

important determinant for a change of infant feeding practices among mothers in the study area.

“Unhealthy condition of the mother is another factor responsible for the early introduction of complementary foods, because if a mother is so sick, family members do not allow her to breast feed because they will say he child will also be sick when he or she sucks the breast of a very sick mother. Sickness such as malaria, HIV/AIDS, TB, anaemia are all factors responsible for the early introduction of complementary foods and if this happens to the mother, the tendency for her to breast feed is minimal, sometimes breast feeding cease completely” (FGD-Mother).

“Sometimes with the work of God, some mothers may die after delivery and leave the child and in this case foods are introduced to the child so early” (FGD- Grand mother).

Breast milk insufficiency of the mother

Comments under this theme varied this way:

“If some mothers are sick they have insufficient milk supply and in that case the milk they produce cannot satisfy the breast feeding child and thus they introduce complementary foods so early to the child” (FGD-Grand mother).

“You know for some children they are so greedy in breast feeding, they breast feed too much, this makes the mother to have anaemia and also loose weight, that is why that particular child no longer breast feed from the mother, and at this time other foods are given to the child” (FGD- Mother).

Mother’s socio-economic status and income

For mother’s socio economic status and income, this is what one of the respondents pointed out:

“Poverty is also another factor responsible for the early introduction of complementary foods to the child. If the mother is poor, she will not be happy enough to adequately feed the child because she will be thinking of how to get good food to increase the quantity of breast milk” (In-depth interview- TBA).

Cultural and traditional practices

Factors such as tradition, beliefs and cultural practices have been found to have an influence on infant feeding.

"If a baby cries often, an abdominal cramp is usually suspected and if that happen we do go to the bush to look for roots of a plant called "Kuntumangho" (It is a type of plant found in the wild bush and the roots are boiled and drink which is believed to treat abdominal cramps or discomfort). This root is broken into pieces and chew by the mother until it is completely crushed and given to the child by mouth. This helps in the prevention of abdominal cramps. The straw of the chewed root is use to rub around the umbilicus of the baby and this way the baby does not cry anymore. This case there is no need to give the child breast milk, because the child sleeps straight away" (FGD-Grandmother).

DISCUSSION

This study aimed to put together information that can be used to understand infant and young child feeding practices in the District. The FGDs and the in-depth interviews proved to be very useful methods for investigating relevant community and family practices with regards to infant and young child feeding among breast feeding mothers. Despite the fact that a small sample size coupled with the method used to get the participation of the respondents certainly limit the generalizability of the research findings.

The commonest infant feeding method prevalent in the study area is breast feeding with the introduction of solid or complementary foods as early as two to three months of the infants' life. The study found out that mothers are aware of the fact that successful breast feeding leads to less money spent on infant formula. Based on this fact formula feeding in this area is very low, although some mothers do practice it. Despite the strong support of breast feeding by the women, some mothers either bottle feed or introduce other liquids as early as they are born. In addition, information on infant and young child feeding practices is adequate but knowledge on the effects of early introduction of solid or complementary foods to the infant is inadequate. Apparently most of the women are unaware of the effects of some of their own infant and young child feeding practices which were linked to their own cultural beliefs and tradition. What has become clear in this study was that breast feeding is the norm in the District, although the women participating in the study seems to agree in principle that there are different methods of infant feeding in the study area, but they categorically made it clear that breast feeding is the commonest preferred method of feeding an infant from birth up to 24 months. This study and that of (Samega-Janneh et al., 2001) agree in principle that optimal breastfeeding practices including exclusive breastfeeding increase the chance of survival for most infants.

The reasons for delay initiation of breast feeding is due to the fact that newly delivered mothers have to wait for

signal from their husbands, parents and mother-in-laws. The attitude of husbands, parents and grand mothers towards breast feeding mothers certainly discouraged them to initiate breast feeding early as the case in other research findings. This study found out that most of the women are not aware of the importance and benefits attached to the early initiation of breast feeding. The studies such as that of (Littman et al., 1994; Shepherd et al., 2000; Giugliani et al., 1994) found that inadequate maternal education and support for both partners significantly inhibit on successful breast feeding. It was found in this study that culture and economics greatly influence choice and decisions regarding infant and young child feeding in the District. The belief that exclusive breastfeeding is dangerous to the child has been found in this study because the mothers feel that if a child does not drink water after delivery; the child will be tasty and may eventually die, while the grand mothers have a feeling that if a child does not drink water early makes the child aggressive in later life.

The women perceived that giving the infant water immediately after birth is necessary because it makes the child look healthy. Although no specific amount of water to be given to the child on a daily basis has been mentioned by the women, but they emphasised that giving water to the child is important. The majority of the respondents do not comply with the WHO recommendation on the promotion of exclusive breast feeding due to their cultural backgrounds, although exclusive breast feeding has been identified as one of the key interventions for reducing childhood deaths (Bahl et al., 2005). The belief that colostrum is impure and dangerous to the child has also been established in this study. The respondents thought that colostrum needs to be removed from the breast of the mother before actual breast feeding starts and that certain cultural practice are used to remove the colostrums with the influence of grand mothers. The findings of this study revealed that there is a negative misconception about the use of colostrum.

The support from health workers, opinion leaders and traditional communicators and NGOs by means of nutrition information have been valued as an important strategy in helping mothers to adequately feed their infants and thus help in improving their infant feeding practices. The women mentioned that most of the support is in the form of information on nutrition given by grand mothers, health workers, traditional communicators, opinion leaders and other family members. It was found that although grand mothers and husbands are the major barriers to the early initiation of breast feeding, but on the other hand they do provide support to breast feeding mothers in a way of information giving, provision of food at household level and training of young mothers on infant food preparation. The BFCI strategy which has proven to be a good intervention in improving child health

and nutrition at community level is not available in the study area on a wider scale. This study found that grand mothers play a major role in influencing the early introduction of complementary foods because they have been found to be very powerful decision makers in the home. In addition to grand mothers, husbands, friends and other family members of breast feeding mothers play an influential role in the early introduction of complementary foods in the District. In addition, maternal employment outside the home for economic and nutritional gain coupled with increased workload of women has a significant influence on appropriate infant feeding practices, as most of the women in the study area are mostly engaged in agricultural activities. Factors such as; breast milk insufficiency, maternal illness or death after delivery, too close pregnancies and size of the breast feeding mother have been found to significantly influence the early introduction of complementary foods and early cessation of breast feeding in the area. It has also be found that mother's socio-economic status, income level, cultural and traditional practices very well influence the early introduction of complementary foods and henceforth lead to changes in their infant feeding practices.

ACKNOWLEDGEMENTS

The authors are very much grateful to the following the following people and institutions for their support for information collection: Leeds Metropolitan University (Faculty of Health), Department of State for Health and Social Welfare (Banjul), Mr. Omar Jah (Riders for Health, Gambia), Lamin Ceesay (PHO, Bwiam Hospital), Mr. Kebba Badjie (Chief Executive, Bwiam Hospital), Mr. Ousman Jarjue (Driver, Riders for Health; Gambia). Special thanks are extended to Dr. Mariatou Jallow (Director of Health Services), all those who took part in the study and the village heads or their representatives for their support before, during and after the data collection.

REFERENCES

- Bahl R, Frost C, Kirkwood BR, Edmond K, Martines J, Bhandari N, Arthur P (2005). Infant feeding patterns and risk of death and hospitalisation in the first half of infancy: multicentre cohort study. *Bull World Health Organ.* 83(6):418-26.
- Barnes J, Stein A, Smith T, Pollock JI (1997). Extreme attitudes to body shape, social and psychological factors and reluctance to breastfeed. *Avon Longitudinal Study of Pregnancy and Childhood. J. R. Soc. Med.* 90:551-559.
- Bentley ME, Caulfield LE, Gross SM, Bronner Y, Jensen J, Kessler LA, Paige DM (1999). Sources of influence on intention to breastfeed among African-American women at entry to WIC. *J. Hum. Lact.* 15(1):27-34.
- Bowling A (2002). *Research Methods in Health: Investigating health and health services.* 2nd edition. Open University Press, Buckingham Philadelphia p 479.
- Bryant CA, Coreil J, D'Angelo SL, Bailey FC, Lazarov M (1992). A strategy for promoting breastfeeding among economically disadvantaged women and adolescents. *NAACOGS Clin Issu Perinat Womens Health Nurs.* 3(4):723-730.
- Casiday RE, Wright CM, Panter-Brick C, Parkinson KN (2004). Do early infant feeding patterns relate to breast-feeding continuation and weight gain? Data from a longitudinal cohort study. *Eur. J. Clin. Nutr.* 58(9):1290-6.
- Central Statistics Department (2003). *The Gambia Population and Housing Census Report, 2003.* Banjul, The Gambia (Available at: <http://catalog.ihnsn.org/index.php/catalog/174>).
- Chabrol H, Walburg V, Teissedre F, Armitage J, Santrisse K (2004). Influence Of mother's perceptions on the choice of breastfeed or bottle-feed: perceptions and feeding choice. *J. Reprod. Infant Psychol.* 2(3):189-198.
- Earle S (2000). Factors affecting the initiation of breastfeeding: implications for breastfeeding promotion. *Health Promot. Int.* 17: 205-214.
- Espinoza H (2002). The relationship between family structure and exclusive breastfeeding prevalence in Nicaragua. *Salud. Publica. Mex.* 44(6):499-507.
- Foo LL, Quek SJS, NG SA, Lim MT, Deurenberg-Yap M (2005). Breastfeeding Prevalence and Practices Among Singaporean Chinese, Malay and Indian Mothers. *Health Promot. Int.* 20(3):229-237.
- Giovannini (2004). Feeding practices of infants through the first year of life in Italy. *Acta Paediatr.* 93:492-497.
- Giugliani ERJ, Caiaffa WT, Vogelhut J, Witter FR, Perman JA (1994). Effect of breastfeeding support from different sources on mothers' decisions to breastfeed. *J. Hum. Lact.* 10:157-161.
- Henderson AM (1999). Mixed messages about the meanings of breastfeeding representations in the Australian press and popular magazines. *Midwifery* 15:24-31.
- Kulkarni RN, Anjenaya S, Gujar R (2004). Breast Feeding Practices in an Urban Community of Kalamboli, Navi Mumbai. *Ind. J. Comm. Med.* 29(4):10-12.
- Li L, Zhang M, Scott JA, Binns CW (2005). Infant feeding practices in home countries and Australia: Perth Chinese mothers survey. *Nutr. Diet.* 62:2-3.
- Littman H, VanderBrug Medendorp S, Goldfarb J (1994). The decision to breastfeed. The importance of fathers' approval. *Clin. Paediatr.* 4:214-219.
- Lutter CK, Rivera JA (2003). Nutritional Status of Infants and Young Children and Characteristics of Their Diets. Nutrient Composition for Fortified Complementary Foods. Nutrition of Infants and Young children. *J. Nutr.* 133:2941S-2949S.
- Manan WA (1995). Breastfeeding and infant feeding practices in selected rural and semi-urban communities in Kemaman, Terengganu. *Malays. J. Nutr.* 1:51-61.
- McIntyre E, Pisaniello D, Gun R, Sanders C, Frith D (2002). Balancing breastfeeding and paid employment: a project targeting employers, women and workplaces. *Health Promot. Int.* 17(3):215-222.
- Multiple Indicator Cluster Survey (MICS) (2002). *The Government of The Gambia and UNICEF report.*
- National Nutrition Agency (NaNA) (2002). *The Baby Friendly Community Initiative: The Gambia Experience. A Paper Presented at the ECOWAS Nutrition Forum in 2002, The Gambia.*
- National Nutrition Agency (NaNA) (2000). *The Baby Friendly Community Initiative: The Gambian Experience. A Paper Presented by the Executive Director. Unpublished.*
- Quinn V, Guyon A, Ramiandrazafy C (2004). Promoting Breastfeeding in Madagascar: A streamlined approach to expand to two new regions. June 2004, Linkages Project, USAID.
- Liamputton RP (1998). Culture and infant feeding practices among Southeast Asian mothers living in Melbourne. *Birth Issues* 7:15-22.
- Patton MQ (1990). *Qualitative Evaluation and Research Methods.* 2nd Edition. Sage Publications p 381.
- Sagoe-Moses, Ketsela (2005). Follow-up of Health workers Trained in Breastfeeding Counselling and HIV and Infant Feeding Counselling in

- Ghana, Nigeria, Zambia and Zimbabwe: Survey Report. *Commun. Dis. Bull. Afr. Reg.* 3(1).
- Semega-Janneh IJ, Bohler E, Holm H, Matheson I, Holmboe-Ottesen G (2001). Promoting breastfeeding in rural Gambia: combining traditional and modern knowledge. *Health Policy Plan.* 16(2):199-205.
- Shepherd CK, Power KG, Carter H (2000). Examining the correspondence of breastfeeding and bottle-feeding couple's infant feeding attitudes. *J. Adv. Nurs.* 31(3):651-660.
- Smith MM, Maureen MNS, Hinton VJ, Bellinger D, Kuhn L (2003). Initiation of breastfeeding among mothers of very low birth weight infants. *Paediatrics* 111(6 Pt 1):1337-42.
- Suryavanshi N, Jonnalagadda S, Erande AS, Sastry J, Pisal H, Bharucha KE, Shrotri A, Bulakh PM, Phadke MA, Bollinger RC, Shankar AV (2003). Infant Feeding Practices of HIV-Positive Mothers in India. *Community and International Nutrition. J. Nutr.* 133:1326-1331.
- Tuttle CR, Dewey KG (1994). Determinants of infant feeding choices among Southeast Asian immigrants in Northern California. *J. Am. Diet. Assoc.* 94:282-286.
- Walker ARP, Adam FI (2000). Breastfeeding in sub-Saharan Africa: Outlook for 2000. *Public Health Nutr.* 3(3):285-292.
- Wilkinson S (2004). Focus Groups Research, in D. Silverman (editor) *Qualitative Research: Theory, Method and Practice.* Second Edition, Edited by David Silverman. SAGE Publications.
- World Health Organization (WHO) and United Nations Children Emergency Fund (UNICEF) (2003). *Global Strategy for Infant and Young Child Feeding.* World Health Organization, Geneva, 2003.
- Zimmerman DR, Guttman N (2001). Breast is best": knowledge among low-income mothers is not enough. *J. Hum. Lact.* 17:14-19.

Appendix.

FROM : Panasonic TAD/FAX

PHONE NO. : 223178

Jul. 20 2006 10:25AM P01



THE REPUBLIC OF THE GAMBIA
Department of State for Health and Social Welfare
BANJUL

TEL NO: (220) 4227300

Fax NO: (220) 223178

Ref: AD 471/01

10th July 2006

Mr. Modou Njai
Leeds Metropolitan University
Faculty of Health
Queen Square House
Room 431
Leeds LS2 8AJ
England

PERMISSION TO CONDUCT A STUDY IN THE GAMBIA

The Department of State for Health and Social Welfare has received your project proposal and look forward to the result of your studies.

I wish you all the best.

Dr. Mariatou Jallow
Ag. Director of Health Services

Cc: Permanent Secretary -- DoSH
file