

Appraisal of Nursing Mothers' Knowledge and Practice of Exclusive Breastfeeding in Yobe State, Nigeria

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Abstract

Under-5 mortality rates in Nigeria are 75 and 157/1000 live births. Malnutrition and Severe Acute Malnutrition rate accounts for 53% and 12% of under-5 mortality respectively. This paper examines mothers' knowledge and practices of exclusive breast feeding (EBF). The state was stratified into three senatorial districts. Data were sought and obtained through semi-structured interview schedule from 541 mothers of children 0-12months, 19 focus group discussions and 22 key informant interviews techniques were conducted among community duty-bearers. The result reveals 7.4% mothers practiced EBF with > 78.9% initiating breastfeeding after an hour. 57% admitted colostrum, 9% EBF was observed in the rural and 4.9% in urban communities. Early initiation of breastfeeding was higher in urban than rural communities. Social-cultural beliefs play major roles in hindering exclusive breastfeeding. Enlightenment programmes and establishment of breast feeding support groups were suggested for improving practice of EBF.

Keywords: Attitude, Exclusive Breastfeeding, Knowledge, Malnutrition, Nursing Mothers, Practices

INTRODUCTION

Breast milk is a natural resource that has a major impact on a child's health, growth and development and it is recommended for at least the first two years of a child's life. Breast milk contains the nutrients that a baby needs and in the right quantity. The World Health Organisation (WHO) and United Nations Children Emergency Fund (2003) emphasizes that the nutrients are quickly and easily digested in the body systems of infants. Breastfeeding activities are carried out worldwide in order to fulfil the WHO and United Nations Children Emergency Fund (UNICEF) recommendation that infants be breastfed exclusively for six months and thereafter until 24 months.

Like in many of the sub-Saharan African countries, the practice of breastfeeding in Nigeria has been a major aspect of infant feeding but exclusive breastfeeding practice is poor. Presently in Nigeria it has been shown by the Multiple Indicator Cluster Survey (MICS 2007) data and National Demographic Health Survey (NDHS, 2008) that only 13% of nursing mothers practiced Exclusive Breastfeeding, this is a decline from 17% reported in NDHS (2004). In addition to breast milk, 34% of infants aged 0-5 months are given plain water only, while 10% are given non-milk liquids and juice and 6% are given milk other than breast milk. Furthermore, 35% of infants aged 0-5months are given complementary foods. The aforementioned explains the high incidence of infant malnutrition and mortality experienced in developing countries which is mainly due to poor infant feeding practices. Progress in improving infant and young child feeding practices in the developing world has been remarkably slow, (Ruel, 2003) identifies as due to several factors such as ignorance of the benefits of these practises and adequate support from family and policy makers.

According to Jones *et al* (2003), malnutrition has been responsible directly or indirectly, for 60% of the 10.9 million deaths annually among children under-five. Well over two-thirds of these deaths, which are often associated with inappropriate feeding practices, occur during the first year of life. It is further estimated that among children living in the 42 countries with 90% of global child deaths, a package of effective nutrition interventions could save 25% of childhood deaths each year (Arimond and Reul, 2004). In the same vein, Okolo *et al* (1999) asserts that to achieve Millennium Development Goals (MDGs) for child survival and the prevention of malnutrition (MDGs 4 and 5), adequate nutrition and health during the first several years of life is fundamental. This preposition is still a mirage.

In the same vein the available Food Consumption and Nutrition Survey (FCNS 2001-2003) revealed that four out of every 10 children (40%) are stunted, one out of every ten U-5 in Nigeria are underweight (10%) while 14% are wasted. The report also revealed that Yobe state has stunting rate of 54%, wasting 31.1% and underweight 39.4%. This scenario is described as alarming considering the implications of malnutrition on the survival, growth and development of the children of this state. Nigeria Demographic Health Survey (NDHS, 2008) report puts the infant mortality and under-5 mortality rates in North East geopolitical zone where Yobe State is located at 109 and 222/1000 live births respectively, being the highest in the country.

Thus, exclusive breast feeding (EBF) in the first six months of life is recognized as an indispensable component of survival, physical and mental development of children (Lancet, 2008). The period from birth to two years of age is a “critical window” for the promotion of optimal growth, health, and behavioral development. Some of the consequences of poor nutrition during the first two years of life include significant illnesses, delayed mental and physical development or even death. Numerous factors have been identified as impediments to proper nutrition and infant feeding habits. Important among them are poverty and lack of adequate information and support on good feeding practices, especially EBF for the first six months of life and other infants and young child feeding practices. This paper examines the knowledge, attitude and practice of EBF by the nursing mothers in particular in three local government areas of Yobe State prior to the insurgency of Boko Haram in the State and zone.

METHODOLOGY

The state was stratified into three senatorial districts with one Local Government Area (LGA) selected in each senatorial district. (1 urban LGA purposely selected from the central senatorial district.) The LGAs covered were: Damaturu (urban) the state headquarter, Machina (rural) and Nangere (rural). In each LGA, three wards and six communities (i.e. two per ward) are randomly selected. In each community, 30 mothers of children 0-12 months are systematically selected.

Two sets of community members are chosen for the Focus Group Discussion namely: Men group (fathers) and Women group (mothers) per community. Personnel for Key Informant Interview consist of one Traditional, Religious, Women leaders and one Health worker in each community. The field assistants employed for the survey consist of Community Health Officers, Community Health Extension Workers and Nurses working in the study communities.

The nature of data collected are: background information (education, marital, occupation), Practice (place of delivery, early initiation, colostrum, feeding pattern) Knowledge (definition of exclusive breastfeeding (EBF), benefits of EBF, sources of knowledge) and Attitude; For mothers who are knowledgeable and are practicing EBF, For mothers who are knowledgeable but are not practicing EBF, For mothers who are not knowledgeable and are not practicing EBF.

A total of 541 mothers were interviewed. There is no difference between rural and urban areas in terms of response rates. At the end, 22 interviews for key informant interview (KII) were retrieved for analysis, while for the focus group discussions (FGDs), a total of 19 discussions were retrieved for transcription and data analysis were descriptively presented.

STUDY AREA

Yobe State is located between latitudes $10^{\circ} 05' 1'' N$, $13^{\circ} 15' 1'' N$ and longitudes $09^{\circ} 55' 1'' E$, $12^{\circ} 15' 1'' E$. The studied LGAs are located as follows: Nangere latitudes $10^{\circ} 78' 1'' N$, $10^{\circ} 71' 1'' N$ and longitude $11^{\circ} 48' 1'' E$, $11^{\circ} 50' 1'' E$; Damaturu latitudes $11^{\circ} 57' 1'' N$, $11^{\circ} 59' 1'' N$ and longitude $11^{\circ} 48' 1'' E$, $11^{\circ} 54' 1'' E$; and Machina latitude $12^{\circ} 75' 1'' N$, $13^{\circ} 21' 1'' N$ and longitude $10^{\circ} 20' 1'' E$, $9^{\circ} 55' 1'' E$. It shares international boundary with Niger Republic to the North and from within shares state borders with Jigawa and Bauchi to the West, Borno to the East and Gombe to the South. It comprises of 17 Local Government Areas (LGAs) and 188 wards and covers an area of about 47,153 km² (Fig. 1). The population of the State is estimated to be over 2.5 million projected from the National Population Commission (2006) figure, and has a target population (0-59 months) of about 517,364. The people of the State are mainly agrarian with agriculture providing employment to about 80% of the populace; a sizeable number of the populace are also engaged in some forms of trading and art and craft for livelihood.

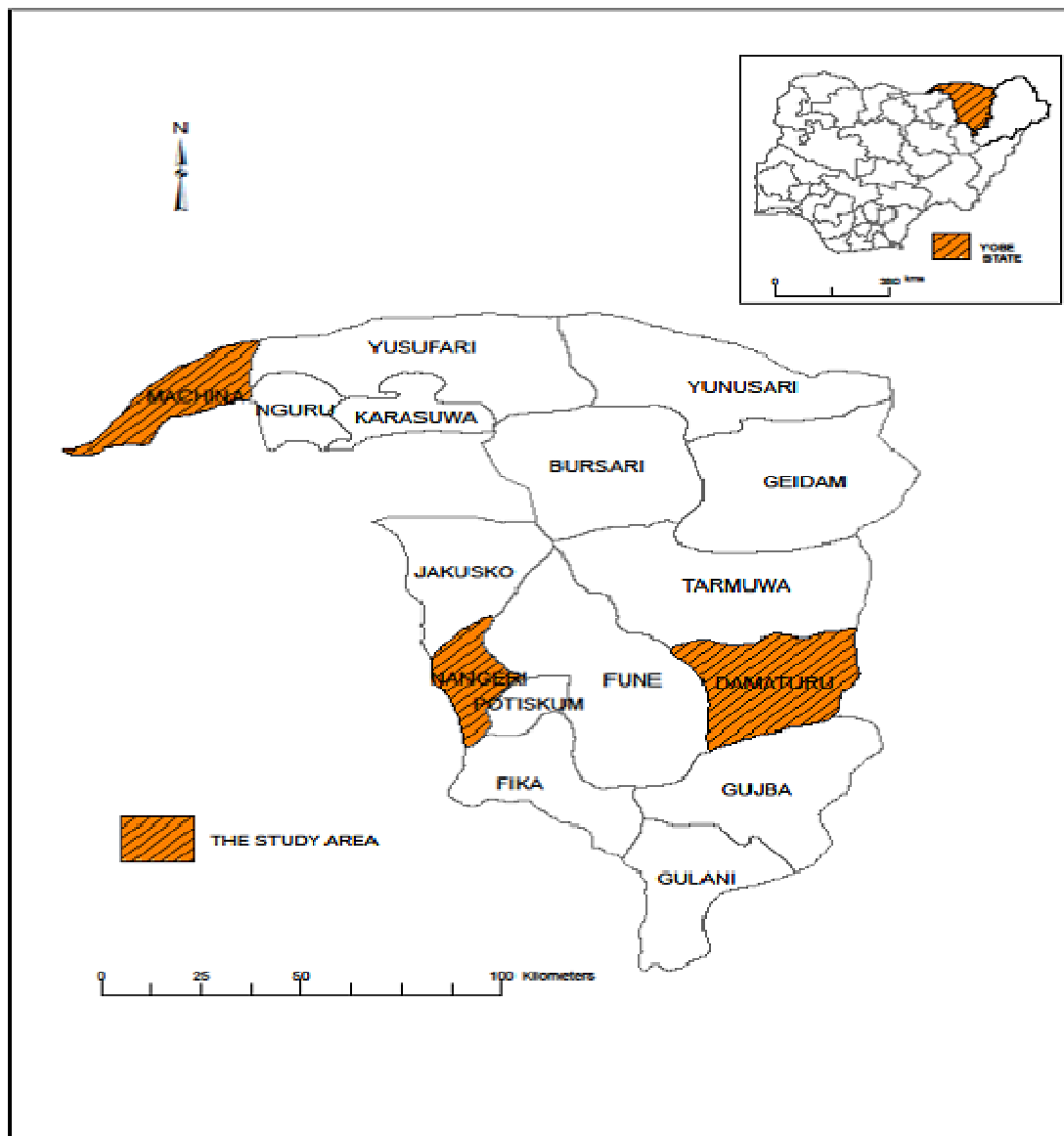


Fig. 1: The Study Areas

RESULTS

Socio-Demographic Characteristics of Respondents

Among the mothers interviewed 32% of them came from Damaturu, 35.1% from Machina and 32.9% from Nangere LGA. The age distribution among the mothers ranges from 15-50 years. Of these 9% are aged 15-19, 27.1% aged 20-24 years and those aged 25-29 years being the highest with 27.6%. For the marital status of women 95% were married; single mothers were 1.0%, while the divorced were 2.0%, widow 0.8% and separated 1.2%. The data also shows an astounding discovery where there are more monogamous marriages (54%) than polygamous marriages (46%). This is amazing because of the Islamic background which is well-disposed to polygamy.

Educational Level of Parents

The study reveals that 59% of the respondents had no formal education, while 24% had some form of formal education. The secondary school level of education ranked the second highest level of education attained (9.2%) and next is primary schooling (13.1). Among the fathers only 32% had no form of formal education with most having secondary form of education (21%).

Occupational Status of Parents

64% of the mothers are fulltime housewives. 14% of mothers are Artisan as against fathers' 44%. The study shows that both mothers and fathers were engaged in trading and farming with 4.8% against 22% and 0.9% against 29% respectively. Only 7% of respondent mothers were civil servants as against 13.5% of the fathers.

There were no significant differences in terms of the number of times a child will be breastfed in a 24 hour period. 84.5% of working mothers would breastfeed more than 7-8 times compared to 85% of fulltime house wives. A high percentage of mothers do not breast feed for up to six months.

Place of Delivery

Only 14% of the respondents delivered in health facility while the remaining mothers delivered at home. This might be connected to accessibility to health facilities and where health facilities are available they are not usually properly mobilized to use them. This study reveals that a higher proportion of 80% of mothers that delivered at health facility gave colostrums and also over 60% put their babies to breast within one hour of delivery when compared to those mothers that delivered at home

BREASTFEEDING PRACTICES

Initial Feed given immediately After Delivery

Thirty nine percent of the mothers admitted to giving their babies' breast milk immediately after delivery, while 30% gave water. Interestingly, 17.8% of mothers gave animal milk as the first food while 4.3% commenced breast milk substitutes. Several reasons were given for the various practices carried out with tradition and culture standing out as a major influencing factor in the use of animal milk (See Table 1).

Table.1: Immediate Food after Delivery, Breast Feeding Initiation Time, Colostrum Consumption and Current Feeding Practice

Type of Food Given Immediately After Delivery	Proportion (n=539) %	Reasons
Breast Milk	38.8	Child cries, health benefit and Peer influence
Water	29.7	Child cries, Delayed Lactation, Tradition and culture
Breast milk substitute	4.3	Delayed lactation, Health benefit tradition and culture and thirst
Herbs	1.1	Tradition and culture and child cries
animal milk	17.6	Delayed lactation and child cries
Others(Zam-zam, dates)	8.5	Child sick, tradition and culture, child cries

Source: Field work 2012

Early Initiation of Breastfeeding and Giving of Colostrum

One of the ten steps to successful breastfeeding is initiating breastfeeding within the first hour of delivery. Majority (78.8 %) of children were given breast milk after an hour as shown in Table 2 and the reasons given for this timing ranges from poor mother's health, child refusing to suck and traditional and cultural demand. The percentage of mothers that gave first yellow milk (colostrum) was 57% as compared to 43% that did not give. The reasons advanced for not giving breast milk within the first hour of delivery are diverse but dominant amongst these reasons are rooted in tradition and culture, which is strongly embedded in the colour not purely white an indication of impurity. The study however shows that almost all (99.6%) the respondent mothers were still breastfeeding as at the time of the study.

Table 2: Breastfeeding initiations and colostrum consumption

Characteristics	Frequency	Percentage
Breastfeeding Initiation Time		
Within an hour	113	21.1
After an hour	422	78.2
Total	535	100
Colostrum Consumption		
Yes	300	56.7
No	229	43.3
Total	529	100
Currently Breastfeeding		
Yes	517	99.6
No	2	0.4
Total	519	100

Source: Field work 2012

Feeding practices in the early months

49.5% of the mothers admitted to feeding their index child with breast milk and water in the early months of life, while 21.3 % gave breast milk, water and breast milk substitutes (BMS). Only 15.3% of the mothers were giving only breast milk as at the time. Traditional and culture practice played a significant role with 9% of the mothers giving animal milk as a way of the people. 60% of the mothers who gave water along with other feeds believed the child was thirsty and the breast milk only or BMS was not enough in the hot weather to quench the child's thirst. A large proportion of the mothers (85%) fed their baby more than 7 times daily

Awareness of EBF, Sources of information and Correct Definition

A significant number of Mothers of 78.4% had not heard about Exclusive breastfeeding. Of the 21.6% of mothers who had heard about EBF, 64.5% said they obtained such information from health workers, 9.0% from the media and 7.3% from their husbands. Also, out of the 21.6 % who said they were aware of EBF, only about 27% could give the correct definition of EBF. More than half (52.8%) could not properly position their children while, 58.4% gave incorrect explanation of the child being properly attached to the breast. The following were identified by the mothers as benefits of breast milk: it is safe (21.9%), it is food (19%), it helps bonding (18.2%), and it helps on prevention of disease (17.5%). However, 4.4 % said they have of idea on the importance of breast feeding.

DISCUSSIONS

This study provides the depth of knowledge, attitudes and influencing factors on exclusive breastfeeding practices. The data were cross-examined to identify possible relationship between various variables used.

Educational Status and Awareness of EBF

The association between education and EBF awareness reveals that there is positive correlation between educational attainment of respondent mothers and awareness on EBF, except for those who do not have any form of western education and Islamic/Quranic Education that are negatively correlated. In general therefore, the more formal education acquired by mothers, the higher they will be predisposed to the practice of EBF. This evidence is in strong agreement with National Population Commission (2008)

Educational Status and Colostrum Consumption

The more the educational level, the more likely the chances of giving colostrum to the child. Thus, knowledge played a major role for those who availed their babies the consumption of colostrums as revealed in the study analysis where educated respondents allow their babies to be given colostrums compared to non-educated, when compared education with the identified places of delivery, it shows that 94.6% of mothers with no form of education delivered at home compared to 60% of mothers who had any form of formal education and give birth at health facility. This buttresses the fact that 64.5 % of mothers who had heard about EBF admitted to being told by a health worker. Research in many countries has shown the correlation between a high level of maternal literacy and low infant and child morbidity and mortality. Despite its impact on the economy and living standard of the family, maternal education acts as a powerful independent force in reducing infant and child death. The knowledge of the process and benefits of exclusive breastfeeding emphasized on posters, in the media and in societal gatherings would go a long way to improve EBF rate of any society.

Early Initiation of Breastfeeding in relation to Place of Delivery

Majority of mothers that delivered at home generally initiated breastfeeding after one hour, whereas higher proportion of those who delivered at health facilities initiated within one hour. It can be deduced therefore that where a mother delivers influences colostrums consumption and breastfeeding initiation. Therefore, accessibility to health facilities and improvement of capacity of health workers are paramount to scaling up EBF rate. This discovery is similar to the report of NDHS (2004) and RNAO (2007). However, the value of 21.1% obtained in this study is less than the 40% and 25% for National and the North eastern of the country respectively.

Urbanization Status of Local Government Area in Relation to Early Initiation of Breastfeeding

On location of respondents basis, the proportion of respondents that have unfavorable attitude were more in the rural communities than in the urban communities while their urban counterparts however have a higher proportion of favorable attitude toward breast feeding practices except in Machina LGA where positive association between all variables tested higher than Damanturu the state headquarter. It is worthy to note that Machina has been UNICEF focal LGA from 2002-2008 country programme, hence the consistent strong positive relationship noticed between all tested variables. Also, a general pattern is noted as more people from urban areas deliver at health facility compared to people from rural areas who deliver at home. The reason why urban people delivered at health facilities can be as a result of the fact that they have better access to health facilities than those in the rural areas, where such are not provided adequately.

The exclusive breastfeeding rate of 15.3 % obtained in this study is unacceptably low but other studies done in Nigeria have a similar result (Uchendu, *et al* 2009; Ogbonna, *et al* 2000) smaller family size had a positive effect on EBF among women with ≤ 3 children per family, who achieved higher EBF rates than those with ≥ 5

($p < 0.001$). This was also corroborated by Uchendu *et al.* However, it is self-evident that mothers can cope better with the demands of EBF when they have fewer babies who are well spaced out; this reduces the likelihood of 'burnout' and maternal exhaustion. A higher maternal educational level was noted to favour EBF; similar findings were made by other workers (Waiswa, *et al* 2009; Uchendu, *et al* 2009; and Aghaji 2002). Improved maternal education enhances mothers' understanding and appreciation of the demands and benefits of EBF, and empowers them to resist external interferences and pressures. The younger mothers were most likely not to exclusively breastfeed due to inexperience and pressures from older women who did not practice it.

Although, the practice of Breastfeeding was high by the mothers (99.6%), exclusive breastfeeding was low. Exclusive breastfeeding is compromised even when water is given. The knowledge of the practice and benefits was either absent or shallow across all the groups in the community. Countries in Africa and Asia show similar knowledge pattern (Kishore, *et al* 2009; Waiswa, *et al* 2009 and Girolamo, *et al* 2004). Unfortunately, this included the health personnels who are supposed to be the custodians to promote this intervention. This is probably a reflection of the emphasis placed even in current medical curricula on exclusive breastfeeding in medical, school of nursings and public health affiliations. To address this problem in developed countries guidelines for nursing association called Breastfeeding Best Practises Guidelines for Nurses have been made and circulated for references for them. This can be readily implemented in this State, when security of lives is relatively assured and evidences seen and put in places by the State stakeholders. Most of the women admitted that whatever they practised was influenced by their religious, traditional and cultural beliefs. Family and peers also played a significant part. This is mainly due to the extended family system that operates in the country most especially in the northern zones where one person's child belongs to the whole family and community. The health system had little or no significant influence on the attitude of the community towards exclusive breastfeeding.

The practise of discarding colostrum and replacing it with a wide range of prelacteal feeds was observed in more than 60% of the communities. The prelacteal feeds ranged from water to breastmilk substitute. Interestingly, most of them gave animal milk first as a cultural practice. This reflects the general occupation of the people who are involved in cattle rearing. A situation buttressed by the communities opinion, traditional and religious leaders the custodian of communities socio-cultural norms. Some of the leaders emphasizes that dates a fruit and water must be given to new baby first, the colostrum are extracted and discarded for the first three days because it is seen as dirty by its yellowish colour, hence, not suitable for infant consumption.

The crux barriers to EBF hinges on the traditional and religious belief system of the people, few drive from weather of the area being hot, child's crying interpreted as child's thirst and hunger that need to be quenched urgently.

Suggestions offered by the various interviewed groups centering mainly around enlightenment programmes, capacity building of health personnels and Government active encouraging participation showed that some sense of commitment had been elicited from the people and the time to invest in that open window is now. Certain countries like Madagascar have at a national level worked on community suggestions and successfully doubled their exclusive breastfeedings rates over at ten month period (Quinn, *et al* 2004). Hence, there is need to strengthening breastfeeding promotions as a part of Integrated Management of Childhood Illnesses (IMCI) through counselling sessions; through community based approach through multiple communication channels by engaging Interpersonnel communications, community mobilization events e.g weddings, religious services, town meetings, market places, local mass media e.g local broadcasts in local dialects, music, jingles, dramas; provision of musical cassettes to drivers of local public transport vehicles promoting exclusive breastfeeding and other infant young child feeding (IYCF) messages, behaviour change communication (BCC) strategies using brochures, posters and billboards on EBF using local languages, constitution of Breastfeeding Support Teams (Traditional Birth Attendants, Community Health personnels, peer counsellors Influential members of the Men and Women groups) to provide regular home visits, need to shift to 'Baby Friendly' Household Initiative to reduce opposition by family and community members as well as revive and strengthen 'Baby Friendly' Hospital (BFHI) Initiative and need for monitoring and evaluation through multi-component approach that includes baseline and regular household and clinic survey of current practise.

In conclusion, exclusive breastfeeding knowledge and practises are suboptimal among all human sectors of the communities in Yobe state. The Lancet series on child survival have identified Breastfeeding interventions as having the potential to prevent mortality in 13 % of all under five in developing areas of the world, ranking it as the most important preventive approach for child survival. Thus investments in exclusive breastfeeding practises at scale is thus justified and activities such as adequate counselling, community involvement and support can scale up EBF rate. Unfortunately this State or region is currently under the siege of unmitigated Boko Haram that believes western education is a taboo. The beginning of Boko Haram ravaging in year 2008 was highly politicised hence, it was not nipped from bud now has become a dreaded monster devastating all the starts of socio-economic cum political development of the area. Intervention in the short-time is a mirage as external

assistances are starbled and wounded by activities of this sectarian crises in the area. Thus, infant population are presently incredibly suffering from malnutrition and preventable dieases and while adult are on self- inflicting destruction of Boko Haram insurgency.

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