

## **MOTHERS' KNOWLEDGE, ATTITUDES, BELIEFS AND PRACTICES CONCERNING EXCLUSIVE BREASTFEEDING IN CALABAR, NIGERIA**

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### **ABSTRACT**

Breastfeeding is an important resource which includes exclusive breastfeeding (EBF). It provides food, health and care simultaneously. Therefore a descriptive survey was carried out to assess knowledge, attitudes, beliefs and practices as related to EBF. The study population consisted of all mothers of child bearing ages (15-49 years) who had children from (0-2 years). Simple random sampling was used in selecting ten villages out of twenty-three and single-stage cluster sampling was used to select three hundred (300) respondents for the study. A questionnaire was used for data collection. Data were analysed using descriptive statistics and chi-square tests. The results revealed that the majority of the respondents 240 (80.0%) were aware of EBF; 162 (54.0%) were knowledgeable about EBF while 180 (60.0%) practised EBF. It was concluded that women in the Ikot Omin community, in Nigeria practised EBF and the recommendations focused on the fact that health workers should continue to encourage mothers to breastfeed exclusively.

**Keywords:** infant feeding, exclusive breastfeeding, Nigeria.

## **INTRODUCTION**

Breastfeeding is as old as man. Breastmilk is the best food for the infant because it contains all the nutrients in the correct proportions. It has the correct temperature, is easily digested and assimilated, readily produced and available (Frazer & Cooper, 2003). The majority of research reports have focused on the benefits of breastfeeding to infants, young children, mothers and communities. Breastfeeding is also shown to have important benefits throughout the life cycle (Kramer, et al., 2001; Frazer & Cooper, 2003). Indeed breastfeeding is an unequalled way of providing ideal food for the healthy growth and development of infants; it is also an integral part of the reproductive process with important implications for the health of mothers. Exclusive breastfeeding (EBF) for six months is the optimal way of feeding infants. Thereafter, infants should receive complementary foods with continued breastfeeding up to two years of age and beyond (Kramer et al, 2001; Frazer & Cooper, 2003; Oluwatosin, 2007).

The WHO (2007) affirmed that research has disproved the general beliefs that breastmilk substitutes are as good as breastmilk. Therefore, there is a need to encourage mothers to continue breastfeeding. To enable mothers to establish and sustain EBF for six months, the WHO and UNICEF recommend: initiation of breastfeeding within the first hour of life, breastfeeding on demand and the use of no bottles, teats or pacifiers (Kramer et al, 2001).

While some mothers try to do this, others might resort to feeding their babies with infant formula in place of breastmilk during the first six months. Some mothers might not be knowledgeable about the benefits of exclusive breastfeeding (Nwachukwu & Nwachukwu, 2007). In discussing the need for breastfeeding, it has been reported that health information and education significantly influenced mothers' knowledge about the importance of breastfeeding, the initiation of lactation, the frequency of lactation and other lactation practices among women attending a post natal clinic in Nigeria (Edegbai, 2001). Breastfeeding behaviours of mothers are important predictors of infant and child nutrition, health and development. Exclusive breastfeeding is an optimal behaviour encouraged and propagated by the WHO/UNICEF through various ministries of health and "Baby Friendly Hospital Initiatives".

## **PURPOSE AND OBJECTIVES OF THE STUDY**

The purpose of this study was to assess the knowledge, attitudes, beliefs and practices of EBF among mothers in Ikot Omin, Calabar, Nigeria.

The specific objectives of this study were to:

- ascertain if mothers had heard about EBF
- identify sources of information concerning EBF.

- ascertain the knowledge of mothers about EBF.
- determine the practice of EBF
- find out what they think about EBF.

## **SIGNIFICANCE OF THE STUDY**

A survey of knowledge, attitudes, beliefs and practices on EBF is necessary to know what obtains in Ikot Omin, a semi urban community where many low income and lower class people dwell. Findings will add to the existing database and will assist nurses in the community to plan strategies to enhance or sustain exclusive breastfeeding among mothers. If it is found that the mothers practise EBF, they will be encouraged to continue this practice. However, if it is otherwise, they will equally be educated about the advantages of EBF and its positive practices to be maintained in order to enhance the healthy growth of the children.

## **STATEMENT OF THE PROBLEM**

Malnutrition is still high and life threatening, particularly affecting the poor. The most affected are babies and children under 5 years of age. High mortality rates are still persisting among the babies who are not breastfed (Ene-Obong, 2001; Frazer & Cooper, 2003; UNICEF, 2005). Socio cultural and religious beliefs, taboos and ignorance hinder the practice of EBF (Ene-Obong, 2001). Lack of knowledge, poor attitudes, negative beliefs and poor practices of EBF might be disastrous to infants (Ene-Obong, 2001). Global campaigns urge mothers to be baby friendly (UNICEF, 2005; WHO, 2007). Successful breastfeeding depends on many factors, such as willingness of the mother to breastfeed, a healthy infant and encouragement by healthcare personnel; and mothers' knowledge, attitudes and beliefs about breastfeeding. Breastfeeding behaviour of mothers is an important predictor of infant and child nutrition, health and development.

## **CONCEPTUAL FRAMEWORK**

This study is based on Precede Model developed by Lawrence Green. This model classifies the variables which affect health behaviour as predisposing, enabling and reinforcing factors (Achalu 2001). Predisposing factors to EBF are knowledge, beliefs, attitudes, values and cultural mores. Enabling factors include personal skills of mothers and available resources to initiate and sustain EBF. These aspects include attributes of the mother and the healthcare delivery system which motivate mothers to develop appropriate behaviours towards EBF. Reinforcing factors will include child ill health as a result of not breastfeeding exclusively or a child's good health as a result of EBF.

The Precede Model helps one to classify the factors influencing EBF, ascertain the possibility of initiating and sustaining EBF through enabling factors and the provision of reinforcement through encouragement and approval of exclusive breastfeeding.

## **LITERATURE REVIEW**

Exclusive breastfeeding provides the best start in life (UNICEF, 2005). Since 1990, global breastfeeding rates have risen by 15%. In Nigeria, a study in Epe local government area of Lagos State revealed that the percentage of breastfeeding rose from 2% in 1990 to 14% in 2004 (Omotola, et al., 2005). The benefits of breastfeeding are well documented in the literature (UNICEF, 2005; Ene-obong, 2001; Frazer & Cooper, 2003; Nwachukwu & Nwachukwu, 2007; WHO, 2007).

Breastfeeding exclusively does not allow the infant to be exposed to potentially unsafe food or water. It also saves an estimated six million lives of infants every year (UNICEF, 2005). Over 3,000 lives of infants will be saved every day if breastfeeding continues alongside appropriate complementary feeding until at least two years of age (UNICEF, 2005).

The incidence and success of breastfeeding have been attributed to several factors including the provision of accurate information and continuous support to the breastfeeding mothers (Wambach et al., 2005; Edegbai, 2001). In a related study, it was reported that 37% of the mothers admitted that they had been advised to breastfeed immediately after delivery, but only 24% of the sampled mothers actually did so. The status of breastfeeding dropped from 37% in the neonatal period to 14% at the end of the sixth month of exclusive breastfeeding (Omotola et al., 2005). Successful breastfeeding depends on mothers' knowledge, attitudes and beliefs about breastfeeding. Since breastfeeding behaviour of a mother is an important predictor of infant and child nutrition, health and development, it becomes necessary to assess mothers' knowledge, attitudes, beliefs and practices of exclusive breastfeeding (Ene-obong, 2001).

## **RESEARCH METHODOLOGY**

### **Study setting**

The research setting was Calabar, the capital of Cross River State, Nigeria. Calabar is located on a Peninsula between Calabar River and the great Kwa River. It lies 4° 56 North of the Equator and 8° 22 East of the Meridian of Greenwich. It is separated from nearby highland areas by rivers and broad stretches of low, wet land and mangrove swamps.

The site of the study was Ikot Omin community in Calabar municipality comprising 23 villages. It has a primary health centre, a market, pre-primary, primary and secondary educational institutions. It is located along Murtala Muhammed Highway about 12 kilometers from Calabar. Ikot Omin is inhabited by the Quas, Ibibios, Igbos, Yorubas

and Hausas. The majority of the people are farmers, traders, fishermen and civil servants. The main religions are Christianity and Islam.

## **Population**

In this study, the research population comprised mothers aged 15-49 years with children from birth to two years of age.

## **Sampling techniques**

Simple balloting was used in selecting 10 out of the 23 villages in Ikot Omin. Thereafter, each selected village was subdivided into four areas using the established public health zones (North, South, East and West). These areas served as clusters. From each cluster, every woman of child-bearing age (15–49) who had nursed at least one child not older than two years, was selected as a respondent. This gave a total of 300 respondents from the 10 selected villages.

## **Ethical considerations**

A letter of introduction and permission was taken to the clan head of Ikot Omin, in order to carry out this study in his community. The traditional rulers (clan head of Ikot Omin and the village councils) of the selected communities granted permission to carry out the study in their communities. In each household, verbal consent was obtained from the respondents before data collection commenced.

## **Data collection method**

A questionnaire was formulated by the researchers and used to collect data from the mothers with children from birth to two years in their homes. They were pre-tested at Ikot Ansa, a semi-Urban area like Ikot Omin. Some questions were dropped and some modified before the actual data collection was done.

Six field assistants, with qualifications not below Senior Secondary West African School Certificate were selected and trained for three days by the researchers. At the end of the training session, they were tested and the best three were selected to assist the researchers in the collection of data. The uneducated mothers were assisted by the researchers and/or the field assistants in the data collection while the educated mothers completed the questionnaires by themselves.

Questionnaires were administered by the researchers and the three field assistants for four weeks including weekends in the month of March, 2005.

## **Data analysis**

Data were analysed after collection by the researchers using simple frequencies, percentages and chi-squares for relationships. The major dependent variable in the research topic, as indicated in the title, is the practice of exclusive breastfeeding (EBF)

viewed as: breastfeeding a baby for six months without giving water or supplementary feeds. Similarly, the major independent variables measured were:

- Knowledge categorised into: awareness of EBF, what EBF is, when to wean, milk sufficiency for the first six months, and that more milk is produced as the baby is breastfed
- Attitudes/beliefs about: safety of breast milk, attractiveness of a woman during breastfeeding, undesirable effects of breastfeeding and the cost of EBF.
- Practice, categorised into: breastfeeding of babies, giving of colostrum to the baby; breastfeeding at night and practising EBF.

## RESEARCH RESULTS

### Socio-demographic characteristics of the respondents.

**Table 1:** Socio-demographic data of respondents (n=300)

Variables	Frequency	%
<b>1. Age (in years)</b>		
15 to 20	29	9.7
21 to 30	138	46.0
31 to 40	97	32.3
Above 40	36	12.0
<b>2. Education level</b>		
No formal education	60	20.0
Primary	62	20.7
Secondary	91	30.3
Tertiary	87	29.0
<b>3. Martial status</b>		
Single	25	8.3
Married	192	64.0
Widowed/divorced	59	19.7
Others	24	8.0
<b>4. Number of children</b>		
1-3	148	49.3
4-6	106	35.3
7-9	30	10.0
>9	16	5.3
<b>5 Occupation</b>		
Housewife	133	44.3
Civil servant	74	24.6
Self employed	93	31.0

As shown on table 1, most respondents were in the 21-30 years age group, attained secondary and tertiary education, were married and had one to three children.

### Knowledge about EBF

Table 2 shows the knowledge of respondents about some aspects of EBF. Of respondents 80 % (n=240) were aware of EBF, 162 (54.0%) knew what exclusive breastfeeding is and (74.3%; n=223) knew that breastmilk alone is sufficient for the baby for the first six months. However, only (32.0%; n=96) knew when to wean the baby.

**Table 2:** Knowledge of respondents about exclusive breastfeeding (n=300)

Knowledge Areas	No	%
Awareness of EBF	240	80.0
Knowledge of what EBF is	162	54.0
Knowledge of when to wean the baby	96	32.0
Knowledge that breastmilk alone is sufficient for baby for 0-6 months	223	74.3
Knowledge that more breastmilk is produced as the baby suckles	228	76.0

### Practice of exclusive breast feeding (EBF)

Although 293 respondents (97.7%) were breastfeeding their babies, only 180 (60.0%) practised exclusive breastfeeding and 183 (96.1.0 %) gave their babies colostrum.

**Table 3:** Practice of exclusive breastfeeding (n=300)

Breastfeeding variables	No	%
Breastfeeding of babies	293	97.7
Giving of colostrum to babies	183	61.0
Breastfeeding of babies at night	256	85.3
Exclusive breastfeeding	180	60.0

### Attitudes and beliefs about EBF

Table 4, indicates that 254 (84.7%) respondents had positive beliefs about the desirability of EBF, 253 (84.3%) believed that breastmilk is safe for the baby and 233 (77.7%) stated that EBF is of low cost to the mother/family while 207 (69.0%) believed that women are attractive during breastfeeding.

**Table 4:** Attitudes and beliefs about EBF (n=300)

Variables	Attitudes and beliefs about EBF			
	Positive		Negative	
	No	(%)	No	%
Safety of breastmilk	253	(84.3)	47	(15.7)
Attractiveness of women during breastfeeding	207	(69.0)	93	(31.0)
Desireability of exclusive breastfeeding	254	(84.7)	46	(15.3)
Cost of exclusive breastfeeding	233	(77.7)	67	(22.3)

### Sources of information and practise of EBF

**Table 5:** Relationship between sources of information about EBF and practice of EBF (n=300) chi square = 21.9 , df = 3, P< .001

Sources of information	Practice of exclusive breastfeeding				
	Yes		No		Total
	No	(%)	No	(%)	
Radio/TV	36	(26.6)	24	(33.4)	60
Health workers e.g Nurses	70	(88.7)	130	(111.3)	200
Neighbours	20	(13.3)	10	(167.7)	30
Others	7	(4.4)	3	(5.6)	10
Total	133		167		300

Values in brackets are expected frequencies

Table 5 shows the relationship between sources of information about EBF and the practice. Of the respondents, 200 (66.7%) received the information from health workers. Out of the 60 respondents who obtained information through the radio/television, 36 (60.0%) practised EBF; out of 200 who got information from health workers, only 70 (35.0%) actually practised EBF. Those who obtained information about EBF from neighbours were 30, of whom 20 (66.7%) practised EBF.



## **DISCUSSION OF FINDINGS**

### **Socio-demographic characteristics of the respondents.**

As shown in table 1, most respondents were in the 21-30 years age group, attained secondary and tertiary education, were married and had one to three children and out of the 300 respondents who had 1-3 children, 148 (49.3%), practised EBF more than those who had 4 or more children. Of the 192 respondents who were married, 122 (64.0%) practised EBF. They might have received financial resources for sustaining EBF from their spouses.

### **Knowledge of exclusive breastfeeding**

The results revealed that of the 300 respondents, 240 (80 %) were aware of EBF. This result supports the aim of the “Baby Friendly Hospital Initiative” which encourages the spread of awareness about knowledge, attitudes, beliefs and practices of exclusive breastfeeding. The high level of awareness on EBF is also supported by the WHO (2007). The awareness in this study may be attributed to the availability of a primary health care centre and many educational institutions in the community. The results also showed that 162 (54 %) of the respondents were knowledgeable about the meaning of EBF and this requires more efforts on the part of health personnel to intensify their work on EBF.

The results also indicate that some of the 96 (32%) respondents lacked knowledge of when to wean the baby. This result is supported by Omotola et al (2005) who posit that a mother's economic activities may interfere with EBF resulting in early weaning. Knowledge of milk sufficiency was also explored in the study which showed that 228 (76.0%) of the respondents were aware that the more the baby suckled the better the milk production. The results in this study are in accordance with those of Omotola et al (2005); Frazer and Cooper (2003); UNICEF (2005).

### **Practice of exclusive breastfeeding**

The results also indicated that out of 300 respondents, 293 (97.7%) breastfed their babies while 183 (61.0%) gave their babies colostrum; 256 (85.3 %) breastfed at night and 180 (60.0%) practised EBF. The high percentage of respondents' practices of breastfeeding at night might be attributed to the practice of women sleeping with their newborn babies on the same bed which prompts the mother to breastfeed on demand. The practice of lying down to breastfeed a baby should be discouraged because the baby could easily choke.

The results also show that some respondents (117; 39.0%) did not give their babies colostrum. According to Ene-Obong (2001) as well as Frazer and Cooper (2003) colostrum is the most important part of breastmilk. Colostrum contains more antibodies and more white blood cells than later milk and is rich in immunoglobulin A (IgA), which is found in babies' small intestines and protect the baby from pathogenic organisms. In addition, colostrum stimulates a baby's immature intestines and acts as a laxative that

helps the baby pass meconium. In this way, colostrum enhances the baby's immunity (Nwachukwu & Nwachukwu, 2007).

### **Attitudes towards and beliefs about practices of exclusive breastfeeding**

Out of the 300 respondents, 253 (84.3%) believed that breastmilk was safe. UNICEF (2005), Frazer and Cooper (2003) as well as the WHO (2007) posit that breastmilk is not only safe for the baby but has numerous benefits for the mother as well. This result is in contrast to Nwachukwu and Nwachukwu's 2007 study where 70.8% of their respondents were reportedly afraid of breastfeeding because they feared losing their attractive figures. The present study took place in a rural setting while Nwachukwu and Nwachukwu's study was conducted in an urban area and in a university community.

Out of the 300 respondents, 233 (77.7%) had positive attitudes towards cost although 67 (22.3%) had negative attitudes/beliefs about breastfeeding's cost. Money is needed to buy foods that constitute nourishing diets for the lactating mothers. The cost of living is high in Nigeria, with a low standard of living, and many mothers lived below the poverty levels of US\$1 (N120.00) per day. Breastfeeding requires a lot of energy from a nursing mother. The carbohydrates, fats, proteins, vitamins, minerals and water required by the baby for healthy, growth and development all come from the mother through breastmilk. If the nursing mother is not feeding properly, the woman can lose weight, and suffer from nutritional or other malnutrition deficiency diseases (Ene-Obong 2001). Thus, there is a need for financial resources to make EBF a success.

### **Sources of information on EBF**

Out of the 60 (20%) respondents who had received information through the radio/television, 36 (60.0%) practised EBF; out of 200 (66.7%) who got information from health workers, only 70 (35.0%) actually practised EBF. Those who had obtained information about EBF from neighbours were 30 (10%) out of which 20 (66.7%) practised EBF.

## **CONCLUSIONS**

The majority of the respondents were aware of EBF and believed that the practice is desirable and of low cost, and knew that breastmilk alone is sufficient for the baby for the first six months, yet less than two-thirds of them actually practised EBF. Fewer than one-third of the respondents who had received information about EBF from health workers actually practised it.

## RECOMMENDATIONS

- In order to enhance exclusive breastfeeding practices, health workers should intensify their health talks, house visits and communication promoting breastfeeding.
- Teach the women what EBF is, when to wean a baby, the importance of breastmilk and colostrum.
- Hold EBF commands in the village squares, markets, churches and gatherings where women usually meet.
- Discourage beliefs, attitudes and practices that do not promote breastfeeding.
- Discourage the use of breastmilk substitutes and encourage mothers to breastfeed their babies within one hour of birth.

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