Practice of Exclusive Breastfeeding among Women in a Semi-Urban Community in Lagos

*Olatona FA, Ekanem E, Odeyemi KA
Department of Community Health & Primary Care, College of Medicine, University of Lagos/Lagos University Teaching Hospital, Nigeria

Correspondence Author:
Dr. F. A. Olatona
Department of Community Health, College of Medicine, University of Lagos, Nigeria
E-mail: folaton@gmail.com Tel no: 0803 316 321

ABSTRACT
Introduction: Child mal-nutrition remains a public health problem in developing countries even though breast milk is the most complete form of nutrition for infants. The objectives of this study were to determine the breastfeeding practices, determine the prevalence and the median duration of exclusive breast feeding among mothers in Ikosi district of Ikosi Isheri Local Council Development Area, Lagos.

Materials and Methods: This was a descriptive cross sectional study which employed a multistage sampling method to select 400 mothers whose last confinement was not more than five years to prevent recall bias. Data was collected using structured interviewer-administered questionnaires and analyzed using Epi-Info version 6 computer software.

Results: Majority (93.8%) of the mothers interviewed were between the ages of 20–39 years. Almost all of them (97%) were married and majority were Yoruba. All the respondents initiated breastfeeding, but only 27.5% of the respondents initiated it within the first one hour. The median duration of breastfeeding was 15.5 months, the prevalence of exclusive breastfeeding was 35.3%, while the median duration of exclusive breastfeeding was 3 months. Almost half (49.6%) of the respondents who did not practice exclusive breastfeeding failed to do so because they added water to the breast milk from birth. Marital status, mother’s attitude to exclusive breastfeeding, husband’s attitude to exclusive breastfeeding, and level of knowledge about exclusive breastfeeding all had statistically significant positive association with the practice of exclusive breastfeeding in this community (p < 0.05).

Conclusion and Recommendation: The prevalence of exclusive breastfeeding was low (35.3%) and the median duration of exclusive breastfeeding among those who attempted it was too short (3 months). Public enlightenment and proper health education on exclusive breastfeeding are still relevant, especially in the antenatal clinic so that mothers can have accurate knowledge about its benefits and learn practically how to practice it. Educated women should be targeted more than in the past and more awareness should be created among husbands.

Keywords: Practice, Exclusive breastfeeding.

INTRODUCTION
Child mal-nutrition remains a public health problem in developing countries. According to recent estimates by the United Nations Children’s fund, a quarter of children under 5 years of age in Sub-Saharan Africa are underweight, approximately 43% are stunted while 11.4% of them are wasted. Africa is the only continent in which malnutrition among children is rising though child malnutrition remains most pervasive in Asia. The 2008 Nigerian demographic and health survey also revealed that Neonatal Mortality Rate is 40/1000 live births, infant mortality rate is 75 deaths per 1,000 live births while the under five Mortality rate is 157/1000 live births in Nigeria.

According to WHO and UNICEF “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. Poor nutrition as a child may also result in poor health as an adult. Childhood under nutrition is associated with shorter
adult height, lower levels of academic achievement, reduced adult income, and low birth weight of their progeny. Millions of undernourished children are also at increased risk of infectious diseases in childhood and chronic diseases in adulthood. Growth faltering has been shown to start as early as three months of life, but the children most at risk are between the ages 6–24 months.

Breast milk is the most complete form of nutrition and the sustainable way to feed a baby in the first six months of life in order to prevent malnutrition and its complications, especially in the developing countries. The international consensus is that optimal breastfeeding practice for infants and young children consists of exclusive breastfeeding for the first six months of life with continued breastfeeding up to 2 years of age and beyond. Exclusive breastfeeding means that the infant receives only breast milk from the breast, or expressed breast milk, and receives no other liquids or solids with the exception of syrups and vitamins, mineral supplements or medicines. Early introduction of complementary foods does not provide any advantages in terms of weight gain in our environment, rather it is frequently associated with episodes of illness and growth faltering.

Infants aged 0–5 months who are not breastfed have seven-fold and five-fold increased risks of death from diarrhoea and pneumonia, respectively, compared with infants who are exclusively breastfed and the protective effect is enhanced with greater duration and exclusivity of breastfeeding. At the same age, non-exclusive rather than exclusive breastfeeding results in more than two-fold increased risk of dying from diarrhoea or pneumonia. Infants aged 6–11 months who are not breastfed also have an increased risk of such deaths. According to a recent evidence, universal practice (i.e. 90 percent, recommended by WHO/UNICEF) of exclusive breastfeeding for the first six months and continued breastfeeding for 6–11 months could save about 13–15 percent deaths in children under 5 years of age in India, which means well over 300,000 could be saved in one year.

In spite of the discovery of the impact of exclusive breastfeeding on the infant morbidity and mortality rates, the practice has declined worldwide. Studies have shown that amongst infants aged six months or younger in the developing world, the prevalence of exclusive breastfeeding is 39% and the prevalence of no breastfeeding is 5.6%. The prevalence of continued feeding is 86% and 68% for infants and children aged 6–11 months and 12–23 months respectively in the developing world.

In 1992, United Nations Children Fund and World Health Organisation launched a major International campaign to encourage all hospitals with maternity services to accept the ‘Ten Steps to successful breastfeeding’ of the ‘Baby Friendly Hospital Initiative’ as basic maternity and newborn infant care policies and procedures. In spite of this effort, the Nigerian National Demographic and Health Survey 2008 showed that only 13 percent of children under 6 months are exclusively breastfed while 15% of infants aged 0–5 months drink from a bottle with a nipple, when ordinarily they should be breastfed.

The gap between the breastfeeding practice and the recommendation in developing countries (90%) is unacceptable.

This study was conducted to determine the practices of breastfeeding especially exclusive breastfeeding and to determine the prevalence and the median duration of exclusive breast feeding among mothers in Ikosi district of Ikosi/Isher Local Council Area. This information will be useful for policy makers and health care professionals in determining areas where intervention is needed and making decisions regarding implementation. The end result will be higher level of practice of exclusive breastfeeding.

MATERIALS AND METHODS

It was a cross sectional descriptive study conducted in Ikosi district of Ikosi/Isher local government area in Lagos state. Ikosi/Isher Local Government Area is bounded in the west by Lagos-Ibadan Express Way to the bank of Ogun River and in the east by Ikorodu Road. It extends North-South to share land road boundary with Ogun State OPIC estate office area continuing to Orisha (Isher North Housing Scheme), Onireke and Okegere with expanse of land up to Idera Orile village, Ajewole and Kio-Kio Village far off from the bank of Ogun River, where it crosses the Ikorodu Road to Lagos Lagoon.

The total population of Ikosi was about six hundred and fifty thousand (Data was obtained from Ikosi Local Government Secretariat). The estimated population in the wards i.e. Shangisha/Magodo, Orile-ketu, Orile-Ikosi and Ikosi-oke wards were about eighty eight thousand nine hundred and forty five (88,945), one hundred and seventeen thousand, one hundred and twenty seven (117,127), one hundred and seventy five thousand, one hundred and fifty seven (175,157) and two hundred and sixty eight thousand, seven hundred and sixty nine (268,769) respectively. (The data was obtained from the Local Government Secretariat). The minimum sample size calculated was three hundred and eighty four (384).

Multistage sampling method was used to select the 400 respondents. Ikosi Local Government Area was stratified into the four existing wards and all of them were included in the study. Four streets were chosen from each ward by simple random sampling making a total of sixteen streets. The first twenty five households meeting the criteria were chosen from each street. The starting point on each street was determined by balloting between upper and lower ends of the streets. Only one woman was interviewed in each household. Where they were more than one, balloting was done to select one of them.

A woman was included in the study if she was within the reproductive age group and her last confinement was not more than five years to avoid recall bias.

Pre-tested interviewer-administered questionnaires were used to collect data for about three weeks in May 2005 with the assistance of two interviewers who were trained for the purpose. Duration of exclusive breast-feeding was determined by the least number of weeks or months during which the respondents practiced exclusive breastfeeding.
Olatona FA, et al.

Informed consent was obtained from the intended respondents before questionnaires were administered. Confidentiality was assured and maintained.

The Epi Info software (Windows 2000) was used for data entry, validation, cleaning and analysis. Chi-square was used to determine associations and a p value < 0.05 was considered statistically significant.

RESULTS

The modal age group of the respondents was 30–34 years while the mean age was 32 years. Almost all (97%) of them were married. More than three quarters (77%) were Christians. Most (87%) of them had at least secondary education while only 39% were skilled workers or professionals. Many (57%) of them had just one or two children; only 5.8% had more than four children. Most of the respondents (78%) were Yoruba, while Ibos constituted 10%.

Pre-lacteal feeds (water or glucose water) were given by 30.1% of mothers (Table 1). All the respondents initiated breastfeeding but only 27.5% of the mothers initiated it within the first one hour of delivery (Table 2). Most of them (80.7%) continued breastfeeding for at least twelve months. The median duration of breast feeding was fifteen and half (15 1/2) months (Figure 1).

More than 2/3 (70.3%) of the respondents initiated exclusive breastfeeding but only 35.3% practiced it for six months (Table 3). Almost half (49.6%) of the respondents who did not practice exclusive breastfeeding failed to do so because they added water to the breast milk from birth. A lot (33.6%) of the respondents added infant formula while only 5% added pap with milk or crayfish. Herbal tea (known as agbo in Yoruba) was added by 1.7% (Figure 2).

Most (38%) of those who stopped exclusive breastfeeding before six months did because they felt the milk was not sufficient while seventeen percent (17%) of them stopped because they felt the baby needed water (Table 4).

A significantly higher percentage of married mothers practiced exclusive breastfeeding (35.8%) compared with the single mothers, among whom nobody practiced exclusive breastfeeding at all. A higher percentage of those who had primary education practiced exclusive breastfeeding compared with those who had secondary or tertiary education. There was a negative association between level of education and practice of exclusive breastfeeding though the relationship was not statistically significant. However, there was a statistically significant positive association between knowledge and practice of exclusive breastfeeding (p=0.001). A statistically significantly higher percentage of those who had positive attitude towards breast milk being sufficient practiced exclusive breastfeeding (47.6%) compared with those who had negative attitude (2.0%) (p=0.001). A statistically significantly higher percentage of those who received encouragement from their husbands also practiced exclusive breastfeeding (44.4%) compared with those who did not (10.7%) (p=0.01) (Table 5).

Table 1: Pre-Lacteal Feeds given by Respondents to their Infants

<table>
<thead>
<tr>
<th>Pre-lacteal feeds given</th>
<th>Freq. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>83(20.8)</td>
</tr>
<tr>
<td>Glucose water</td>
<td>35(8.8)</td>
</tr>
<tr>
<td>Herbal tea</td>
<td>2(0.5)</td>
</tr>
<tr>
<td>No feeds given</td>
<td>280(69.9)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>400(100.0)</strong></td>
</tr>
</tbody>
</table>

Table 2: Time of Initiation of Breastfeeding by Respondents

<table>
<thead>
<tr>
<th>Time of Initiation</th>
<th>Freq. (%)</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within first hour</td>
<td>110(27.5)</td>
<td>27.8</td>
</tr>
<tr>
<td>Within six hours</td>
<td>141(35.3)</td>
<td>63.4</td>
</tr>
<tr>
<td>7–24 hours</td>
<td>59(14.8)</td>
<td>77.8</td>
</tr>
<tr>
<td>24–48 hours</td>
<td>65(16.3)</td>
<td>94.1</td>
</tr>
<tr>
<td>After 48 hours</td>
<td>25(6.3)</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>400.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 1: Duration of Breastfeeding by Mothers in Ikosi

Table 3: Duration of Exclusive Breastfeeding (EBF) among Mothers

<table>
<thead>
<tr>
<th>Duration of EBF</th>
<th>Freq. (%)</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;6 months</td>
<td>13(3.2)</td>
<td>3.3</td>
</tr>
<tr>
<td>6 months</td>
<td>128(32.0)</td>
<td>35.3</td>
</tr>
<tr>
<td>4–5 months</td>
<td>35(8.8)</td>
<td>44.0</td>
</tr>
<tr>
<td>3 months</td>
<td>52(13.0)</td>
<td>57.0</td>
</tr>
<tr>
<td>2–8 weeks</td>
<td>33(8.3)</td>
<td>65.3</td>
</tr>
<tr>
<td>One week</td>
<td>10(2.5)</td>
<td>67.8</td>
</tr>
<tr>
<td>Child still breastfeeding</td>
<td>10(2.5)</td>
<td>70.3</td>
</tr>
<tr>
<td>No exclusive</td>
<td>119(29.8)</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>400(100.0)</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Pre-Lacteal Feeds given by Respondents to their Infants

the percentage of mothers who initiated breastfeeding (<3%) in the first one hour in a study at Ile-Ife in 1981 but less than those who initiated breastfeeding within one hour (77%) in a recent U.K study. In this study, 77% of the mothers initiated breastfeeding within the first twenty four hours which is higher than the percentage who initiated breastfeeding within 24 hours (55%) in Jos before the Baby Friendly Hospital Initiative. The practice of delayed breastfeeding initiations deprives infants of the benefits of colostrums.

In this study, 30.1% of the mother gave water or glucose water or herbal tea as pre-lacteal feeds. This percentage is much lower than that obtained in an Iranian study where pre-lacteal feeding was almost universal, where 96.1% of mothers gave sugar water as the first feed. Almost half (49.6%) of those who did not practice exclusive breastfeeding failed to do so because they believed the babies needed water after eating and therefore added only water to the breast milk. Moreover some (17.8%) of those who stopped exclusive breastfeeding did so because they felt the baby needed water.

Only 35.3% of the respondents practiced exclusive breastfeeding for up to six months. This is very similar to the rate (38%) recorded in Lagos in 2002 but different from the

**DISCUSSION**

In this study, all (100%) the respondents initiated breastfeeding and most of them (80.7%) continued for at least twelve (12) months. The prevalence of continued breastfeeding is similar to the result of a review which showed that prevalence of continued breastfeeding is about 86% for infants 6–11 months of age in the developing world. The median duration of breastfeeding was fifteen and half (15.5) months. This is expected since Yorubas constitute 77% of the study population and prolonged breastfeeding is common among the Yorubas. The study is however different from a study in U.K where the median duration of breastfeeding was 27 weeks. The UK has one of the lowest breastfeeding rates worldwide.

Only 24% of the mothers initiated breastfeeding within the first one hour of delivery broadly in keeping with the recommendation of World Health Organization to initiate breastfeeding within the first 30 minutes of delivery. This is far above the percentage of mothers who initiated breastfeeding (<3%) in the first one hour in a study at Ile-Ife in 1981 but less than those who initiated breastfeeding within one hour (77%) in a recent U.K study. In this study, 77% of the mothers initiated breastfeeding within the first twenty four hours which is higher than the percentage who initiated breastfeeding within 24 hours (55%) in Jos before the Baby Friendly Hospital Initiative. The practice of delayed breastfeeding initiations deprives infants of the benefits of colostrums.

**DISCUSSION**

In this study, all (100%) the respondents initiated breastfeeding and most of them (80.7%) continued for at least twelve (12) months. The prevalence of continued breastfeeding is similar to the result of a review which showed that prevalence of continued breastfeeding is about 86% for infants 6–11 months of age in the developing world. The median duration of breastfeeding was fifteen and half (15.5) months. This is expected since Yorubas constitute 77% of the study population and prolonged breastfeeding is common among the Yorubas. The study is however different from a study in U.K where the median duration of breastfeeding was 27 weeks. The UK has one of the lowest breastfeeding rates worldwide.

Only 24% of the mothers initiated breastfeeding within the first one hour of delivery broadly in keeping with the recommendation of World Health Organization to initiate breastfeeding within the first 30 minutes of delivery. This is far above the percentage of mothers who initiated breastfeeding (<3%) in the first one hour in a study at Ile-Ife in 1981 but less than those who initiated breastfeeding within one hour (77%) in a recent U.K study. In this study, 77% of the mothers initiated breastfeeding within the first twenty four hours which is higher than the percentage who initiated breastfeeding within 24 hours (55%) in Jos before the Baby Friendly Hospital Initiative. The practice of delayed breastfeeding initiations deprives infants of the benefits of colostrums.

In this study, 30.1% of the mother gave water or glucose water or herbal tea as pre-lacteal feeds. This percentage is much lower than that obtained in an Iranian study where pre-lacteal feeding was almost universal, where 96.1% of mothers gave sugar water as the first feed. Almost half (49.6%) of those who did not practice exclusive breastfeeding failed to do so because they believed the babies needed to drink water after eating and therefore added only water to the breast milk. Moreover some (17.8%) of those who stopped exclusive breastfeeding did so because they felt the baby needed water.

Only 35.3% of the respondents practiced exclusive breastfeeding for up to six months. This is very similar to the rate (38%) recorded in Lagos in 2002 but different from the
prevalence rates of 13% obtained in Nigeria as a whole in 2008 NDHS, and 14% in a study conducted at Baltimore, Maryland USA. This is not surprising since Ikosi is a community in Lagos state.

Many (38%) of those who stopped practicing exclusive breastfeeding did so because they believed that breast milk alone would not satisfy the children. This is in agreement with the findings in the study conducted at Igbo-Ora in southwestern Nigeria as well as the study amongst rural Jamaican women where the respondents believed that breast milk alone would not satisfy the children. Other reasons mentioned in this study included; the feeling that the baby needed water, plans to return to work, and the inconvenience to the mothers which are similar to the reasons given in a 2004 study in Ile-Ife.

There was a statistically significant association between marital status and practice of exclusive breastfeeding (p < 0.05). The percentage of married mothers who practiced exclusive breastfeeding (35.8%) was much higher than that of single mothers (0%). This agrees with the study in U.K where partnered mothers breastfed longer than single mothers and the other one conducted at Baltimore, Maryland USA, where married women were more likely to breastfeed. Another study among Chinese women also confirmed that those who were married were more likely to practice exclusive breastfeeding. This may be due to the encouragement which a married woman receives from the support of her husband. A single mother probably needs to be gainfully employed to support the family and hence may not be willingly to combine the challenges of exclusive breastfeeding with those of employment.

In this study there was no statistically significant association between the age of mothers and the practice of exclusive breastfeeding (p > 0.05). This is in contrast with the result of a study in Ibadan which showed that mothers 24 years or younger and primiparous mothers were less likely to breastfeed their babies exclusively.

In this study, the percentage of those who practiced exclusive breastfeeding increased with increasing level of knowledge about it. There was a statistically significant association between knowledge and practice of exclusive breastfeeding (p < 0.05). This was expected since knowledge usually precedes a change in behaviour which is a major issue in the practice of exclusive breastfeeding. This study agrees with the study conducted at Baltimore, Maryland USA, where breastfeeding mothers were said to have more family knowledge.

In this study the percentage of those who practiced exclusive breastfeeding decreased with increasing level of education and vice versa, though the relationship was not statistically significant. This can be explained by the fact that the mothers with higher level of education are in the working class and find it difficult to continue exclusive breastfeeding after resuming from maternity leave. A study in Ile-Ife, Nigeria in year 2000 showed a contrary result, in which there was a significant positive association between level of education and the presence of nursing mothers subscribing to exclusive breastfeeding. This difference may be due to the fact that mothers in Ile-Ife are likely to run a less stressful schedule compared to those in Lagos.

CONCLUSION
Breast feeding was universal and most (80.7%) of the respondents continued it for at least 12 months. Prevalence of exclusive breastfeeding was low (35.3%). Addition of water was a major factor in the failure to practice exclusive breastfeeding. Religion, marital status, level of knowledge and attitude to exclusive breastfeeding, and husband’s attitude to exclusive breastfeeding had statistically significant positive association with its practice.

Public enlightenment and proper health education on exclusive breastfeeding are still relevant. These should target both fathers and mothers especially educated women. Employers and associations of employees should ensure that Crèches are available in work places.

REFERENCES
promotion and support of breastfeeding. Florence, Italy, August 1990.


