

Research Article

Infant and Young Child-Feeding Practices in Two Local Government Areas in Southwest, Nigeria

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Abstract

Inadequate feeding of 0-2 years children have long been observed in our society and it is one of the global problems causing malnutrition worldwide. The study was cross sectional in design. It was conducted among consenting mothers and caregivers with 504 children 0-24 months in two local government areas (LGA) in Ekiti State, Southwest Nigeria. Respondents were selected using simple random sampling technique. Data was collected on assessment of Infant and young child feeding practice using semi-structured, interviewer administered questionnaires to obtain information on demographic characteristics, breastfeeding practices and complementary feeding practices. Data was analyzed using descriptive statistics. Analysis of categorical data between the two groups was performed with Chi-square of Fisher's exact test. The p-values <0.05 was considered statistically significant. Statistical package for social sciences (SPSS) version 20 was used for the analysis. All the 504 children 0-24 months assessed were breastfed, 216 (42.9%) initiated breastfeeding within one hour after birth, 138 (27.4%); 78 (28.3%) in Ijero and 60 (26.3%) in Ikole LGAs infants were exclusively breastfed and only 154 (30.6%) were breastfed exclusively for a duration of 5-6 months. Of the 347 children 6-24 months, 124 (35.7%); 79 (40.7%) in Ijero and 45 (29.4%) in Ikole LGAs were fed on appropriate complementary food and 241 (69.5%) initiated complementary feeding at the age of 6 months. Infant and young child feeding (IYCF) practice was poor in this study. Therefore, it is important to strengthen the promotion on IYCF practice during child welfare clinics and via mass media.

Keywords: Infant and young child feeding; Exclusive breastfeeding; Complementary feeding; Children; Practice

1. Introduction

Poor feeding practices during the first two years of life have both immediate and long-term consequences. It is estimated that improper feeding of children leads to about one-third of the cases of malnutrition worldwide [1].

Ensuring health, growth and development of children requires adequate nutrition during infancy and early childhood [2]. Therefore, optimal feeding during the first two years of life provides opportunity for prevention of growth faltering and under-nutrition [2]. Hence, Improvement of infant feeding practices for children less than two years should be a high priority globally [3]. A global strategy for optimal infant and young child feeding (IYCF) was set up by World Health Organization (WHO) and United Nations Children's Fund (UNICEF) [2] in order to reduce malnutrition among the children. The strategy recommends early initiation of breastfeeding within one hour of birth, exclusive breastfeeding for the first six months, and introduction of appropriate, adequate, and safe complementary foods along with continuing breastfeeding up to two years and beyond. Improving infant and young child feeding practices is important to reduce under-nutrition and its consequences [4].

Breastfeeding and complementary feeding practices can prevent up to 19% of all childhood deaths in low-income countries if adequately promoted and practiced [5]. However, questions arise about the level at which current recommendations are implemented. In Uganda and some other countries in Africa, high use of pre-lacteals (fluids given before initiating breastfeeding at birth) and poor exclusive breastfeeding practices has been reported. (6) It is estimated that fewer than 50% of children under 6 months of age are exclusively breastfed in low-income countries, where the relative benefits of optimal feeding are greatest [6]. In Nigeria, an estimated 2,300 children less than five years lose their lives daily, in which sub-optimal IYCF practices play a major role, despite a range of policy initiatives to improve (IYCF) practices [7]. It has been reported that Inappropriate IYCF practices account for more than 40,000 disability-adjusted life years in Nigeria by contributing to lost productivity among children under 5 years [7]. The national study in Nigeria revealed that early initiation of breastfeeding significantly decreased by 4.3% between 1999 and 2013 while exclusive breastfeeding remained unchanged. It also showed that predominant breastfeeding significantly increased by 13.1%, and children ever breastfed declined by 16.4% over time.

Previous reports have shown that non practice of exclusive breastfeeding is a risk factor for a number of diseases, including diarrhea and upper respiratory infections [7]. Feeding practices during infancy are critical for the growth and health of a child during the first two years of life [8] and of importance for the early prevention of chronic degenerative diseases. Progress in improving IYCF in the developing world has been reported to be remarkably slow [9] due to several factors. The risks of early childhood survival in Nigeria are to be considered. A newborn Nigerian baby has a 30 times higher chance of dying before the age of 5 years than a baby born in the developed, industrialized countries [9]. The report of a research showed that the regional prevalence of diarrhea, under-nutrition and under five mortality in Nigeria are far more prevalent in the northern than in the southern part of Nigeria [10]. There is the need to focus attention on the promotion of feeding practices at the household level that are beneficial to the survival of children and caregivers in Nigeria. The above studies indicate the need for a comprehensive strategic plan that is achievable to improve IYCF practices in Nigeria, and to build on previous policy initiatives of past years. Therefore, this study was conducted to assess current status of infant and young child feeding practices as reported by mothers and caregivers in two local government areas, Ekiti State, Southwest Nigeria.

2. Methodology

2.1 Study design

A cross-sectional study (community based) was conducted among mothers or caregivers who had children aged between 0 and 24 months.

2.2 Study area

This study was carried out in two local governments in Ekiti State, Nigeria. Ekiti State is located in the southwest zone of Nigeria with a population figure of 2,384,212. It has sixteen local government areas (LGA) with Ado Ekiti as the State capital. Ekiti State is geo-politically divided into three senatorial districts; Ekiti Central, Ekiti North, and Ekiti South Senatorial Districts. Two local governments were randomly selected for the purpose of this study, namely Ijero local government from the Ekiti Central senatorial district and Ikole local government from Ekiti North senatorial district. Participants were recruited from all the communities in each LGA.

2.3 Sample size and sampling strategy

A total of 504 children in the age group 0-24 months in Ekiti State whose parents or caregivers gave their consent were included in the study. Respondents were selected using simple random sampling technique and systematic sampling technique. Two local government areas (LGA); Ijero and Ikole LGAs were selected using simple random sampling technique. The study was carried out in all the communities in each LGA. Houses in each community were numbered and systematic sampling technique was used to select households to be studied. In each household, mothers or caregivers with children less than 24 months who voluntarily gave their consent were selected in a mother/child or caregiver (Father, Aunt, Grandmother) /child pair.

2.4 Data collection technique

Data were collected using semi-structured, interviewer administered questionnaires which were administered with the help of trained research assistants. The questionnaire solicited information on demographic characteristics, breastfeeding initiation, exclusive breastfeeding and duration, complementary feeding, age of introduction and difficulties in introduction. The questionnaire was developed in English and translated to Yoruba language for better understanding of the respondents. An interview with mothers of the index child was conducted at their home ensuring privacy. Ten Nutritionists were recruited as data collectors. In a study, the feeding practice indicators developed by WHO was used to assess Infant and young child feeding practices [4, 11]. Optimal feeding practice was assessed based on compliance to WHO recommended practices for each indicator in this study. Complementary feeding practice was assessed based on timely initiation (introduction of complementary food at six months), minimum meal frequency (minimum of three meals/day and four times/day for children aged 6-8 months and 9 months and above respectively) and minimum meal diversity (four or more foods within 24 hours). Complementary feeding practice was considered appropriate if all the three indicators mentioned above were fulfilled otherwise it was considered as inappropriate [4, 11].

2.5 Data analysis

The data collected was analyzed using statistical package for social sciences (SPSS) (Version 20) and expressed in frequency and percentages. Analysis of categorical data between the two groups was performed with Chi-square of Fisher’s exact test. The results were represented in tables and charts. The p-values <0.05 was considered statistically significant. P-values (P<0.05) and 95% confidence intervals were used to present results of the bivariate analysis. The study was authorized by the Ekiti State Primary health care development agency. Informed consent was taken from participants. Privacy and confidentiality were maintained throughout the study period by excluding personal identifiers during data collection.

3. Results

A total of 504 children; 276 (54.8%) in Ijero LGA and 228 (45.2%) in Ikole LGA were assessed in this study. Communities studied were 23 in Ijero LGA and 20 in Ikole LGA. (Table 1) The largest age group studied was 0-6 months 157 (31.2%) significantly higher in Ijero 82 (52.2%) than Ikole 75 (47.8%). A total of 347 (68.9%) children were aged 6-24 months; 194 (70.3%) in Ijero LGA and 153 (67.1%) in Ikole LGA. (Table 1).

Variables	Ijero LGA n (%)	Ikole LGA n (%)	Total n (%)	P value
Communities	23 (53.5%)	20 (46.5%)	43 (100%)	0.03
Age group of children				
0-6 months	82 (52.2)	75 (47.8)	157 (31.2)	0.00
>6-9 months	27 (51.9)	25 (48.1)	52 (10.3)	
>9-12 months	40 (28.0)	103 (72.0)	143 (28.4)	
>12-24 months	127 (83.6)	25 (16.4)	152 (30.2)	

P<0.05

Table 1: Demographic characteristics of Participants by Local government area.

All the children studied were breastfed but with different duration. Early initiation of breastfeeding within 1 hour of birth was 216 (42.9%); 121 (56.0%) in Ijero LGA and 95 (44.0%) in Ikole LGA. Infants exclusively breastfed for 0-6 months were 138 (27.4%) significantly higher in Ijero LGA 78 (28.3%) than Ikole 60 (26.3%) (Figure 1). Out of 347 children 6-24 months studied; early initiation of complementary feeding at 6 months was 241 (69.5%); 147 (61.0%) in Ijero LGA and 94 (39.0%) in Ikole LGA p<0.05, 241 (69.5%) introduced complementary feeding timely significantly higher in Ijero LGA than Ikole LGA, while 99 (28.5%); 56 (28.9%) in Ijero and 46 (30.1%) in Ikole LGAs had difficulties in introducing appropriate complementary food at 6 months (Table 2).

Variables	Ijero LGA n (%)	Ikole LGA n (%)	Total n (%)	P value
Ever breastfed 0-24 months	276 (54.8%)	228 (45.2%)	504 (100%)	0.00
Early initiation of breastfeeding within 1 hour of birth	121 (56.0%)	95 (44.0%)	216 (42.9%)	0.34

Exclusively breastfed for 0-6 months	78 (28.3%)	60 (26.3%)	138 (27.4%)	0.03
Started semi solid foods at 6 months	147 (61.0%)	94 (39.0%)	241 (69.5%)	0.00
Correctly took minimum adequate food in 6-24 months	79 (40.7%)	45 (29.4%)	124 (35.7)	0.00
Difficulties in introducing appropriate complementary food at 6 months	56 (28.9%)	46 (30.1%)	99 (28.5%)	0.04

P<0.05

Table 2: Assessment of Infant and young child feeding practices.

The practice of exclusive breastfeeding (EBF) was significantly higher at Ijero than Ikole from 3-6 months. A total of 231 (45.8%); 134 (48.5%) in Ijero LGA and 97 (42.5%) in Ikole LGA did not practice EBF at all (Figure 1). A total of 26 (5.2%) children started taking appropriate complementary food at birth, 23 (8.3%) at 5 months while 241 (69.5%) started at age 6 months (Figure 3).

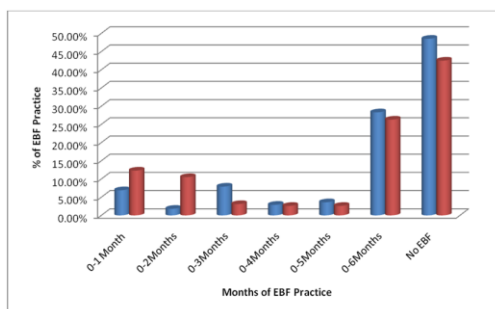


Figure 1: Duration of Exclusive Breastfeeding Practices by LGA (P<0.05).

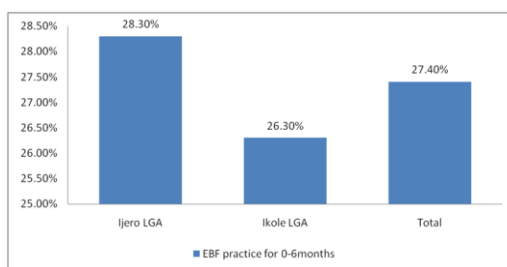


Figure 2: Exclusive breastfeeding practice in the two LGAs (P<0.05).

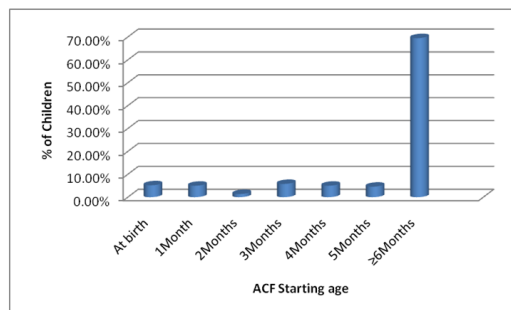


Figure 3: Appropriate Complementary Feeding Stating Age (P<0.05).

4. Discussion

4.1 Breastfeeding practices

This community based cross-sectional study reveals a low prevalence of exclusive breastfeeding (27.4%) in Ekiti State, Southwest Nigeria; significantly lower in Ikole local government area (26.3%) than Ijero LGA (28.3%). This finding is lower than the prevalence among a group of rural area of Sokoto (78.7%) Northern Nigeria, [12] 82% in another study in Lagos Nigeria, [13] a previous study which showed that the prevalence of exclusive breastfeeding practice in Ethiopia was (84%), [2] and previous reports in Nigeria that showed Exclusive Breastfeeding rate declined from 64.9% at birth to 37.3% at 24 weeks of age [1] but higher than a report from Ile-Ife, one of the southwest town which showed that a low proportion (19%) of the nursing mothers practiced EBF. This means that the practice varies widely across Nigeria even among the same tribe [14].

According to a report by UNICEF, [15] only one third of the children living in the developing world are exclusively breastfed during first six months of life. About 40% of infants 0-6 months of age are exclusively breastfed. Exclusive breastfeeding is not widely practiced. In this study, approximately 30.6% of the children were exclusively breastfed for a period of 5-6 months, 8.5% were exclusively breastfed for 3 to 4 months, 15.1% from 0 to 2 months, while 45.8% were not exclusively breastfed at all. This finding is lower than a study which showed that of all the infants studied approximately one third 34.5% were exclusively breastfed for a period of 5-6 months, 18.3% for a duration of 3-4 months, 8.0% from birth to 2 months, few 1.5% for more than 6 months, while 37.8% indicated no practice of exclusive breastfeeding, [1] except for the percentage of 0-2 months and no action which were higher. The practice of exclusive breastfeeding was significantly higher at Ijero LGA than Ikole LGA from 3-6 months, however the percentage of those who do not practice exclusive breastfeeding was significantly higher in Ijero LGA than Ikole LGA. The study showed that IYCF was better practiced in Ijero LGA than Ikole LGA.

4.2 Early initiation of breastfeeding by LGA

Initiation of breastfeeding within the first 30 minutes to one hour of delivery is highly desirable. In this study, a total of 42.9% of mothers initiated breastfeeding within the first hour after delivery, significantly higher in Ijero LGA (56.0%) than Ikole LGA (44.0%). This finding is lower than (54.3%) reported by a study in Lagos, Nigeria, 48.2% reported in Anambra State, [16] the trend of late initiation of breastfeeding in Nigeria [17] and previous study findings in Ethiopia [2]. The findings of this study showed that early initiation of breastfeeding is higher than the regional indices, but lower than the National indices (30% and 44% respectively) [13]. Late initiation of breastfeeding prevents infants from assessing colostrums which has anti-infective properties, and exposes the infants to unnecessary death. This is confirmed by a study in Ghana which revealed that about 22% of newborn deaths were prevented if babies started breastfeeding within one hour after birth [18]. Early initiation of breastfeeding immediately after birth promotes a closer relationship between mother and child which has been found to give the mother a sense of satisfaction [19]. A study emphasized the risk of delayed initiation of breastfeeding on neonates in sub-Saharan Africa. It also showed that neonatal mortality could be significantly reduced by 16% if the mothers started breastfeeding on day one and by 22% when breastfeeding was initiated within the first hour of birth [20].

Previous reports revealed that non-exclusive breastfeeding is a risk factor for some diseases, such as diarrhoea and upper respiratory infections [7].

4.3 Appropriate complementary feeding (ACF) practice

The optimal age for introducing complementary foods is 6 months. Prevalence of timely introduction of complementary feeding among infants 6 months old was 69.5% in this study. Timely introduction of complementary feeding was significantly higher in Ijero LGA (42.40%) than Ikole LGA (27.1%). In a study, a large proportion, 72.4% of the infants were fed with complementary foods and 33.4% of mothers initiated complementary foods for their infants before the age of 4 months. The report of the study was higher than that of Sokoto, Nigeria which revealed that only 22.4% of the mothers started giving their infants complementary foods before the age of four months (early weaning) [12]. Several studies have reported the early introduction of complementary feeding [20]. Introduction of complementary feeding before age six months could be harmful in many ways, such as food and water; displaces breast milk, affects exclusive breastfeeding and if not well processed could harbour pathogenic microorganisms resulting in diarrhea.

Poor nutritional status has been found to be significantly associated with the introduction of complimentary feeding before age six months [21]. It was reported that early weaning was a cause of anaemia in the first year of life [21]. Another study illustrated that, the coverage of timely introduction of complementary feeding was 61.8% [22]. In the same study, a proportion of the mothers (48.3%) started a timely complementary food for their infants at 5 to 6 months while 18.3% commenced Complementary food to their infants at above 6 months. The study revealed that late commencement of complementary feeding affects the nutritional status of the infant [22]. In this study, 35.7% of the children took minimum adequate food at 6-24 months. This was higher than the report of a study which reveals that the practice of appropriate complementary feeding was only 20 (7%) [2]. The same study showed that 39 (97.5%) of 40 mothers introduced complementary food timely, 131 (47%) of mothers gave their children minimum meal frequency, and 20 (7%) children were given the minimum food diversity and acceptable diet [2]. In another study about 67.7%, 52.6%, and 32.7% of children aged 6-8, 9-11, and 12-23 months were fed with the minimum acceptable and age appropriate meal frequency, respectively. The proportion of children that had good dietary diversity was 23.7% [22].

Difficulty in introducing appropriate complementary food at 6 months was 28.9% in this study. It was significantly higher in ijero LGA than Ikole LGA. Transition from exclusive breastfeeding to complementary feeding used to be a challenge to many infants. Every infant is born with specific taste preferences and aversions; however, they must be encouraged to take minimum food diversity that will enhance adequate diet. Knowing well that different cultures have a wide range of food stuffs, children should be encouraged to learn how to like and accept the available foods in their environment [23]. Most often, children learn to accept sweets and high energy density foods which are easily consumed and good sources of energy [24]. At a stage of development called neophobic stage (whose peak is age 20 months) children show extreme new food refusal [23]. This stage differs from one child to another and fades away

by age of 5 to 8 years [25]. There is therefore an interaction between unacceptability of tastes, textures and new foods by children and the effect of early exposure to new tastes and textures [23].

5. Conclusion

This study has demonstrated a sub optimal infant feeding practices in our environment, through poor breastfeeding practices in terms of early initiation of breastfeeding, six months of exclusive breastfeeding and inadequate complementary feeding, which could have a significant effect on infant and young child survival, growth and development, nutritional status, morbidity and mortality and impend economic development. To achieve optimal growth, development and health, infants should be breastfed exclusively for the first six months of life. Thereafter, infants should receive adequate complementary foods with continued breastfeeding up to age two years or beyond, to meet their nutritional needs. Considering the findings of this study, counselling on the benefits of optimal infant feeding such as; early initiation of breastfeeding within one hour after delivery, exclusive breastfeeding practices for the first six months, breastfeeding up to age 2 years and timely introduction of complementary feeding at 6 months of age should be intensified. Strategies to overcome difficulties in ACF introduction should be made known to the public.

Limitations of the Experimental Methods

The study was conducted in only two local governments, representative of two of the three senatorial districts in Ekiti State. Further studies should include the three senatorial districts of the state and more local government representative of the State.

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Conflicts of Interest

None

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