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Wordu GO
Department of Food Science and
Technology, Programmes on
Food Science and Technology
and Home Science and
Management, Rivers State
University, Port Harcourt,
Nigeria

James OF
Department of Food Science and
Technology, Programmes on
Food Science and Technology
and Home Science and
Management, Rivers State
University, Port Harcourt,
Nigeria

Corresponding Author:
Wordu GO
Department of Food Science and
Technology, Programmes on
Food Science and Technology
and Home Science and
Management, Rivers State
University, Port Harcourt,
Nigeria

Assessment of infant feeding practices of mothers in a rural setting in rivers state, Nigeria

Wordu GO and James OF

Abstract

The purpose of this study was to evaluate the infant feeding practices of mothers in a rural community (Rumuji) in Emuoha Local Government Area, Rivers State, Nigeria. Across-sectional survey research design was adopted for the study. Sample sizes of 150 respondents were selected from the population of nursing mothers in Rumuji using random sampling technique. The instrument used for data collection was a questionnaire. The questionnaire had two sections, A-B and 16 items. Data collected was analyzed using frequency, percentages and presented on tables. The results revealed varying demographic characteristic of the respondents. It showed that the respondents from 20-30 years participated more in the study with the highest frequency of 48%. The results also revealed that most of the nursing mothers were married (76%). The findings also indicated that most of the nursing mothers were non-educated (68%) and majority of them were Christian (80%). It also showed that farmers participated more with the frequency of (47.3%). The results also revealed that most of the mothers did not practice exclusive breastfeeding (85.3%), and majority (86%) practiced breast feeding. The foods introduced as complementary foods were below standard as those foods were low in protein and other nutrients.

Keywords: Rural, mother, infants, unicef, Emuoha

Introduction

The world Health Organization (WHO, 2009) ^[12] declared that 10.6millions under fives die annually, globally; with malnutrition directly or indirectly responsible for 60% of these deaths and that majority of the deaths occurred in children within the first year of life and is associated with inappropriate feeding practices. The WHO and United Nations Children's Fund (UNICEF, 2012) ^[11] had recommended early initiation of breast feedings within one hour of life; exclusive breast feeding for the first six months of life, followed by timely introduction of safe adequate, appropriate and nutritious foods at 6 months of age and continued breast feeding up to age 2 years and beyond as optimal infant and young child feeding practices. These optimal feeding practices ensure that the child's nutritional requirements are met and optimal growth, development, health and survival for the first two years of life are achieved. About 800,000 under fives could be saved annually if all children between the ages of 0 to 23 months are optimally breastfed. However, available data showed that not all infants and young children are being optimally fed according to the WHO (2011) ^[16] recommendations. In Nigeria the exclusive breastfeeding rate for children less than 6 months of age is 17%, complementary feeds are being introduced early, with 23% of the children less than 6 months and 38% of children aged 4 to 5 months consuming solid or semisolid foods in addition to breast milk (WHO, 2003) ^[4].

In introducing complementary foods, feeding behavior of mothers change and mothers and/or caregivers adopt various feeding practices which may not comply with standards for optimal infant feeding. Some common practices by mothers during the complementary feeding period bother on the types of food given to infants and the adequacy and frequency of feeding. Food restrictions due to cultural practices, unhygienic practice in bottle feeding; food handling / preparation and responsive breast feeding are also issue of concern during the complementary feeding period for the child (Kimiye & Chege, 2015) ^[6].

The direct consequences of these inappropriate feeding practices is the poor nutritional status of Nigeria's under-fives as revealed in the most recent Nigeria Demographic and health survey (2013), the data revealed that 37% of under-fives in Nigeria are stunted; with 21% severely

stunted. Additionally, 18% of Nigerian children are wasted with wasting peaking at age 9 to 11 months. There is scarcity of data on infant and young child feeding practices in a rural setting like Rumuji Community in Emuoha Local Government Area (LGA) of Rivers State, Nigeria. The death of information on infant feeding and complementary feeding in rural areas in Rivers State motivated this study.

Materials and Methods

Research Design

A cross-sectional survey research design was adopted for the study. Survey design was a descriptive research that was aimed at the collection of large and small samples from a population in order to examine thoughts, opinions or feelings of the respondents on the subject matter.

Area of Study

The study was carried out in rural community (Rumuki) in Emuoha Local Government Area of Rivers State. The local Government Area covers a 260km² and based on 2006 Nigerian Census puts its population as 878,890. The people of Emuoha LGA belong to the Ikwerre ethnicity. The largest ethnic group in Rivers State, Nigeria.

Population of The Study

The population will consist of all nursing mothers with babies less than 2 years of age resident in Rumuji community in Emuoha LGA in Rivers State as the time of the study.

Sampling Size and Sampling Technique

The sampling method used for subject selection was random sampling technique. About 150 nursing mothers were used for

$$n = \frac{z^2 P(100 - p)}{d^2}$$

the study, using the formula, (Okafor, *et al* 2013) and UNICEF (2012) ^[11], global nutrition data on prevalence of overweight/obesity among under five children in Nigeria is 11% (prevalence rate), where

n= Sample size

z= Confidence level = 1.96%

p = Prevalence rate = 11%

d = Confidence interval = 5%

$$\frac{(1.96)^2 \times 11 \times (100 - 11)}{5^2} = 150.44 = 150$$

The sample that was used was 150 randomly selected mothers in the rural community

Instrument for data collections and administration

The instrument used for data collection was a structured questionnaire tagged: infant feeding practices of mothers in Rumuki in Emuoha Local Government of Rivers State, Nigeria. A 22 itemed structured self-administered questionnaires was used for data collection. Self-administered questionnaire was used for data collection. The questionnaires were distributed to the mothers and any mother who could not read was assisted. The questions asked covered the infants feeding practices of mothers, including complementary feeding, age at commencement of complementary feeds and the duration of breastfeeding and forty mothers were randomly selected from government clinics in the rural area.

Data Analyses

Data was analyzed using SPSS version 17, statistical software

and results were presented as descriptive statistics. Chi-square test was used to test-associations between variables. The P values less than 0.05 were considered as statistically significant.

Results

Table 1: presents the socio-characteristics of the respondents. The findings indicated that respondents from 20-30 years had the highest frequency with 48%, followed by 31-40 years with 32.7%, while the 50 years and above had the lowest with 2.7%. Majority of the respondents 76% were married while singles were 24%. The table also shows that non-educated respondents were 68.7%, while educated respondents were 31.3%. On religious affairs; Christians respondents ranked the highest with 80% followed by traditional religion with 16.7%, table 1 also revealed that the occupational states ranked farmers 47.3%, followed with business 23.3%. the rest of the results are shown in table 1.

Table 1: Socio-Economic Characteristics of the Respondents

Variables	Frequency	Percentages (%)
Ages (year)		
Below 20 years	15	10
20-30	72	48
31-40 years	49	32.7
41 – 50	10	6.7
50 and above	4	2.6
Total	150	100
Gender		
Male	14	9.3
Female	136	90.7
Total	150	100
Marital Status		
Single	36	24.0
Married	114	76.0
Total	150	100
Educational Qualification		
Non-Educated	103	68.7
Educated	47	31.3
Total	150	100
Religion		
Christian	120	80.0
Islam	5	3.3
Traditional religion	25	16.7
Total	150	100
Occupation		
Farmer	71	47.3
Business	35	23.3
Civil Servant	10	3.3
House Wife (full time)	15	10.0
Others	14	9.3
Total	150	100

Table 2 shows that the feeding practices of infants in rural community in Emuoha Local Government Area of Rivers State, Nigeria, the findings showed that 83.3% of the respondents gave water to their babies and 16.7% didn't, about 85.5% of the mothers did not practice exclusive breastfeeding, while 14. 7% of them did. The findings revealed that 59.3% of the respondents fed their babies with infant formula food. The finding on table 2 shows that 36.7% of the respondents introduced family foods within 4-5 months while 26% of the respondents introduced family foods with 6-8 months and 20.7% introduced family foods within 1-3 months. The findings further revealed that 40% of the respondents used pap/milk as their complementary food,

21.3% used only pap and 20.7% used pap/crayfish/grounded groundnut flour. About 5.3% used commercial complementary feeds and 3.3% used combination of commercial instant formula and commercial complementary foods. The rest of the findings are shown in the table 2

Table 2: Infants Feeding Pattern of The Participants

Variables	Frequency	Percentages (%)
Did you give water to your baby?		
Yes	125	83.3
No	25	16.7
Total	150	100
Did you practice exclusive breastfeeding?		
Yes	22	14.7
No	128	85.3
Total	150	100
How long did you exclusively feed the baby?		
0 – 3 Months	57	38.0
4 – 5 Months	36	24.0
6 – 3 Months	36	24.0
9 – 11 Months	14	9.3
12 – 23 Months	7	4.7
Total	150	100
Did you feed your baby with infant formula food while breast feeding?		
Yes	89	59.3
No	61	40.7
Total	150	100
Did you feed your baby with infant formula only?		
Yes	21	14.0
No	129	86.0
Total	150	100

Table 3 shows the types of complementary foods used by the mothers. It shows that 40% of the mothers gave their babies pap while 23.3% gave family food (garri and soup) the pap was one of the universal and traditionally accepted food followed by the family food. Other foods used include rice, mashed yam and plantain. Noodles were also used.

Table 3: Types of Complementary Foods Used By Mothers

Types of food	Frequency	Percentages (%)
Garri/Soup (Family food)	25	23.3
Pap (Corn Starch)	60	40.0
Mashed ripe Plantain	15	10.0
Rice	10	6.70
Custard	5	3.3
Noodles	15	10.0
Total	150	100

Discussion

The study revealed high rate (86%) of breast feeding amongst the mothers showed that breastfeeding is universal in rural (Rumuji) Community in Emuoha Local Government Area in Rivers State. This high rate is similar to what has been reported in previous studies in Nigeria (Awogbenja and Ndife, 2012) [2], (Wordu, 2012) [13], (Wordu and Owuno, 2012) [14]. Previous study showed that exclusively breastfeeding infants for the first 6 months of life has the potential for preventing 13% of under-five deaths in developing countries (Jones, *et al*; 2003) [4], because it causes a 2 to 3 fold reduction in deaths from diarrhea, acute respiratory infections, and malnutrition, which are the leading causes of under-five mortalities in developing countries (WHO, 2009) [12]. In this study, though the practice of

exclusive breast feeding is low, (14.7%), this could be attributed to lack of understanding of the benefit of exclusive breast feeding and the pressure of village elder women who believe that infants must be given water and seconded by the rate of non educated mothers (68.7%), as was reported in studies of Seife, *et al*. 2010. The low rate of exclusive breastfeeding for the first 6 months of life revealed in this study is slightly lower than the current national average of 17% (National Population Commission Nigeria Demographic and Health Survey 2013) [7].

The commonest reason (53.3%) given by the mothers in this study for stopping exclusive breast feeding within 0-3 months of age is that breast milk alone was no longer sufficient for their babies. Another study done in Kenya also reported insufficient breast milk as the commonest reason for early cessation of exclusive breastfeeding and commencement of complementary feeding by their respondents (Gitqu, 2011). The WHO / UNICEF recommendations for only 6 months of exclusive breastfeeding is based on the fact that after 6 months of life, children need more vitamins, minerals, proteins and carbohydrates than are generally available from breast milk alone. This study further revealed that more than half of the mothers introduced complementary feeds to their babies before 6 months of age, which is against the WHO/UNICEF recommendation of timely introduction of safe, adequate, appropriate and nutritious feeds, at 6 months of age. This inappropriate feeding practice was also reported in other studies done in Nigeria (NPC, 2013; Awogbenja *et al*. 2012) [7] and has been blamed as one of the causes of under – five malnutrition, especially in the developing countries where the complementary foods are nutritionally inadequate (WHO/UNICEF, 2003) [15].

In conclusion, infant feeding practices in the rural community was sub-optimal though breast feeding rate was high, exclusive breast feeding up to 6 months of age was low. Complementary feedings were introduced early 7 and majority of the mothers who stopped breast feeding at the time of the study, stopped when their babies were between 6 and 12 months of age. Breast feeding education should be organized for the mothers in the community. Adequate information should be given to them to add milk or crayfish to pap. The universal or traditionally accepted usage of pap food for weaning including the usage of family food could be related to the belief of rural setting. Villages think that pap and their family food is cost effective. This collaborated the report of Ihekoronye and Ngoddy (1985) [10], cereal grain and garri (family food) have grossly low protein content and can only provide some energy with limited other nutrients needed for growth of the baby (Ketika and Ayoku, 1984; Ademileguu *et al*, 2008) [5, 1].

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