

## Research Article

# EFFECTS OF MOTHERS FEEDING HABITS ON THE NUTRITIONAL STATUS OF INFANTS (3-6 MONTHS) IN OWERRI WEST L.G.A, IMO STATE, NIGERIA

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### ABSTRACT

The study aimed at investigating the effect of mothers feeding habits on the nutritional status of infants (3-6 months) in Owerri west L.G.A Imo State. It was found that mothers of infants tend to employ poor feeding practices or habits especially when the infants are not yet of age. Five specific objectives were formulated which guided the study. The study employed a simple random method of simple selection. The sample size of 200 subjects determined a validated questionnaire was used to collect data on Anthropometry. Socio economic status, dietary and nutritional assessment of the respondents. Data was shown as frequency and percentage and was analyzed using the statistical package for social science (SPSS 2020) chi Square were used data collected revealed that 63.5% of these mothers were married women, 31% single, divorced 5%. The respondents who practiced complementary feeding for the infants were 49% while 44% practiced Exclusive Breastfeeding (EBF). The socio economic status of the respondents showed that 71.5% were educated to O' level standard. The Anthropometric indices of respondents with their respective BML showed that 27% of mothers had normal weight, 61% overweight and 12% obese. The BML also showed that there was a significant difference in the weight and height of respondents ( $P < 0.05$ ). Based on the findings, it is recommended that Nutritional programmes and Intervention should be practiced in most areas as it will help improving feeding habits of mothers.

**Keywords:** Mothers, Feeding habits, Nutritional status, Infants, Owerri West.

### INTRODUCTION

The state of being a mother or the state or experience of having and raising a child is referred to as motherhood (WHO, 2003). Adequate nutrition and health care during the first few months of life is fundamental for child survival and prevention of malnutrition (Atimo and Oyewole, 2008). It is important to know, that it is during infancy and early motherhood that irreversible faltering occurs (Engberg, 2007). Growth during the first year of life is greater than at any other time after birth. An infant birth weight will usually double by four to six months of age and triple by the first birthday. Good nutrition and feeding practice during the period of rapid growth is vital to ensure that infants develop both physically emotionally and mentally to the fullest potential (Federal ministry of health Abuja, 2006). Inadequate nutrition during the initial formative months and the feeding habits leading pattern of the mothers has both immediate and long term consequences (WHO, 2003). During the early months of infancy, nutritional needs can be entirely met with breast milk so it the preferred milk for infants and best in their first six months of life that is why mother feeding habits is considered. It is perfectly suited and the nutritional needs of infants formula and cow's milk (Maltel, 2008). The immediate consequences of poor nutritional status of infants include morbidity, mortality and delayed mental and physical development, while the long-term consequences include impaired vision, intellectual performances, weak capacity and increased risk of chronic diseases. According to (Luther, 2003) the causes of malnutrition in children can be summarized and known to be poor feeding habits of mothers which in turn does not provide adequate supply of breast milk for infants which is known to be a behavioral cause. Studies and past research works has shown that promotion of exclusive breast feeding ranked first among the intervention program for reducing under five mortality

(pellertier and frongillo, 2003). Reports shows that only about 35% of infants worldwide are exclusively breastfed during the first three months of life (WHO, 2003). Mothers who have poor feeding habits or tend to eat very little always seem to introduce infants to complementary feeding too early or too late and foods given are often nutritionally inadequate and unsafe (Egal and Lopriore, 2006). In Nigeria, about 40% of infants are exclusively breastfed (11TA, 2004) they are consequently an increased number of malnourished children in Nigeria due to their respective mothers do not get enough food that would provide the required nutrients and antibodies in their breast milk (11TA, 2004). In Nigeria, mild and moderate malnutrition contributed to 35% death than severe malnutrition which contribute only 10% (NDHS, 2003) national data from Nigeria food consumption and Nutrition Survey (NFCN 2001-2003) on under five nutrition showed that 42% of the children are stunted 25% where under weight and 9% were wasted. These are the indicators that under nutrition of infants are prevalent in the country. Poor feeding practice of months is one of the major threat and among the most serious obstacles in attaining and maintaining health of infants in the first few months of life (WHO, 2003). Studies have shown that infants whose mothers practice good feeding habit and are exclusively fed for the first six months with good immunization and complementary feeding are seen to be mentally and physically good (WHO, 2003). Current data shows that 55% of Nigerian mothers are ignorant of exclusive breast feeding (11TA, 2004). It has been reported zero awareness of exclusive breast feeding in rural areas of Nigeria especially in Owerri west Local Government Area of Imo State.

### MATERIALS AND METHODS

#### STUDY AREA

This survey was carried out in Owerri west local government Area of Imo State Nigeria. Owerri west is a local government area of Imo

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state Nigeria. Its headquarters are in the town of Umuguma Owerri west was carried out of the former Owerri local government area in 1996. A very large portion of the local government constitute the capital city of Imo state Nigeria it has an area of 295km<sup>2</sup> and a population of 99,265 at the 2006 census. The communities in Owerri west local government area are:

- Umuguma (Capital)
- Avu
- Oforola
- Obinze
- Nekede
- Ihiagwa
- Eziobodo
- Okolochi
- Emedbiam
- Irete
- Orogwe
- Amakohia
- Ndegwu
- Ohii

Owerri west local government area is located with habitude 5° 30'11" N and 50° 31' 30"11" N, longitude 6° 11' 00"11" E and 7° 51' 00"11".

**SAMPLE SELECTION**

The group of mothers that were used for this research were selected form hospital, churches, markets, using simple random sampling technique and the data was collected using the longitudinal techniques. The sample was selected using simple random method and the area sampling technique.

**SAMPLE SIZE DETERMINATION**

The sample size was determined using the formula

$$n = \frac{N}{1 + n(e)^2}$$

$$n = \frac{400}{1 + 400(0.05)^2}$$

$$n = \frac{400}{2} = 200$$

Sample size = 200

Where n = sample size  
 N = population size  
 l = constant  
 E = margin of error fest of significance

Sample size = 200

**STUDY SELECTION**

Out of the 15 towns and villages of Owerri west local government areas of Imo state 4 town was used purposed on the account of the most responding mother of infants or young children. The town include.

- Obinze
- Irete
- Umuguma
- Nekede

Women in these towns who are either farmer or market women were addressed on the objective of the research and those who were

recruited as respondents. Only mothers of infants were used in the study (Demissie *et al.*, 2003)

**DATA COLLECTION**

A Semi Questionnaire was designed and pretested according to the study objective and was validated in the department of nutrition and dietetics Imo state University, Owerri.

**ANTHROPOMETRIC MEASUREMENT**

**WEIGHT MEASUREMENT**

Accurate measurement of weight using a well standardized scale were taken from the respondents. Weight was measured to the nearest 0.1kg (Kathleen and Janice, 2017)

**HEIGHT MEASUREMENT**

Accurate measurement of Height using a well standardized standiometre were taken from the respondents. height was measured to the nearest 0.1cm (Kathleen and Janice, 2017).

**BODY MASS INDEX (BMI)**

Figures gotten from the weight and height measurement was used to determine individual body mass index as a means of determining nutritional status and it's done by dividing weight(kg) by height(m).

**DATA ANALYSIS**

Data obtained was coded and analyzed using Stastical method for the social science (SPSS 2020) and the results was present in tables, frequency and percentiles. Chi square test was used to test for the level of significance at 95% confidence level (P= 0.05).

**RESULT**

**DATA PRESENTATION AND ANALYSIS**

**SECTION A: PERSONAL DATA OF MOTHER**

Table 1

Sex	frequency	%
Female	200	100.0
Total	200	100.0
<b>Marital status</b>		
Married	127	63.5
Single	62	31.0
Divorced	11	5.5
Total	200	100.0
<b>Age</b>		
20-30years	35	17.5
30-35years	70	35.0
36-40years	90	45.0
41-45years	5	2.5
Total	200	100.0
<b>Occupation</b>		
Trader	73	36.5
Civil servant	31	15.5
Business	13	6.5
Farmer	33	16.5
None	5	2.5
Teacher	28	14.0
Cleaner	17	8.5
<b>Religion</b>		
Christianity	200	100.0
Total	200	100.0

Table 1 shows the personal information of the respondent, 63.5% were married,31% single,5.5% divorced.17.5% were between the age of 20-30,35% 30-35,45% 36-40 and 2.5% 41-45.36.5% were traders,15.5%civil servant,6.5% business,16.5 farmer,8.5% cleaner.

**SECTION B**  
**DIETARY ASSEMENT**

**Table 2**

<b>Feed your baby</b>		
One	10	5.0
Twice	61	30.5
Thrice	29	14.5
Regularly	100	50.0
Total	200	100.0
<b>Exclusive</b>		
Yes	88	44.0
No	122	56.0
Total	200	100.0
<b>If yes why</b>		
<b>Don't feel like</b>		
None	78	39.0
No money	110	55.0
Total	12	6.0
Total	200	100.0
<b>Baby bottle</b>		
Yes	28	14.0
No	172	86.0
Total	200	100.0
<b>If yes why</b>		
None	180	90.0
Feeding	16	8.0
No time	4	2.0
Total	200	100.0
<b>Meals per day</b>		
Once	7	3.5
Twice	63	31.5
Thrice	130	65.0
Total	200	100.0
<b>Skip meal</b>		
Yes	35	17.5
No	165	82.5
Total	200	100.0
<b>If yes why</b>		
None	182	91.0
No appetite	10	5.0
Much work	8	4.0
Total	200	100.0
<b>Fresh fruit</b>		
Daily	9	4.5
Weekly	42	21.0
Monthly	39	19.5
Occasionally	110	55.0
Total	200	100.0
<b>Alcohol frequently</b>		
Yes	11	5.5
No	189	94.5
Total	200	100.0
<b>Complementary</b>		
Pap	98	49.0
Cereal	22	11.0
Others	80	40.0
Total	200	100.0

<b>Child age</b>					
6months	99	49.5			
5months	101	50.5			
Total	200	100.0			
<b>Child sex</b>					
Male	101	50.5			
Female	99	49.5			
Total	200	100.0			
	mean	SD	t-value	p-value	Df
Height	0.68	0.02	431.98		
Weight	6.71	1.29	73.33	0.00	199

**Table 2** shows the dietary assessment, 5% of the babies feeds once per day,30.5% twice,14.5% thrice,50% feeds regularly.44% were on exclusive,56% were not on exclusive.39% don't feel like using exclusive,55% were none,6% says no money.14% uses baby bottle,86% do not.17.5% skip meal while 82.5% do not skip meals.4.5% takes fruit daily,21% weekly,19.5% monthly,55% occasionally.5.5% takes alcohol,94.5% do not.49% takes pap as complementary,11% cereal,40% are others.49.5% were 6months,50.5% 5months50.5% were male,49.5% female. the mean and standard deviation for the height and weight of the children(0.68±0.02, 6.71±1.29) with p-value of 0.00 that is (p<0.05), the degree of freedom 199.

**SECTION C**

**SOCIO ECONOMIC STATUS**

**Table .3**

<b>Education</b>	<b>frequency</b>	<b>%</b>
FSLC	20	10.0
SSCE	143	71.5
BSc	33	16.5
Phd	1	0.5
None	3	1.5
Total	200	100.0
<b>Monthly income</b>		
<20,000	153	76.5
<50,000	41	20.5
<1000,000	5	2.5
>100,000	1	0.5
Total	200	100.0
<b>Family size</b>		
3	52	26.0
4	60	30.0
1	36	18.0
6	52	26.0
Total	200	100.0
<b>House you live</b>		
Thatched house	45	22.5
Mud house	62	31.0
Burgalow	93	46.5
Total	200	100.0
<b>Source of water</b>		
Borehole	124	62.0
Well	43	21.5
River	31	15.5
Other	2	1.0
Total	200	100.0

Table 3 shows the social economic status,

10% had FSLC,71.5%SSCE,16.5%BSc,0.5% pHD,1.5% none.76.5% earns less than 20,000 as monthly income,20.5%less than 50,000,2.5% less than 100,000,0.5% greater than 100,000 naira only.26% had a family size of 3,30% 4,18%1,26% 6.22.5% lives in thatched house,31% mud house,46.5% bungalows 62% drinks borehole water,21.5% well ,and 15.5% river water.

### SECTION D

#### 24HOURS DIETARY RACALL

Table 4

Breakfast	frequency	%
Spaghetti	32	16.0
Pap	6	3.0
Custard	2	1.0
Fufu	12	6.0
Garri	9	4.5
Tea and bread	53	26.5
Rice	61	30.5
Beans	18	9.0
Yam	7	3.5
Total	200	100.0
<b>Lunch</b>		
Rice and stew	95	47.5
Yam	30	15.0
Garri	13	6.5
Spaghetti	19	9.5
Fufu	16	8.0
Beans	24	12.0
Moimoi	1	0.5
Fruits	2	1.0
Total	200	100.0
<b>Mid lunch</b>		
Fruit	19	9.5
Snacks	20	10.0
Fufu	11	5.5
Yam	12	6.0
None	128	64.0
Rice	6	3.0
Beans	4	2.0
Total	200	100.0
<b>Dinner</b>		
Fufu	59	29.5
Garri	23	11.5
Moimoi	2	1.0
Yam	24	12.0
Rice	67	33.5
Beans	19	9.5
Spaghetti	5	2.5
Breadfruit	1	0.5
Total	200	100.0

Table 4 shows the food consumed in the past 24 hours,26.5% takes tea and bread for break fast,30.5% eats rice,16% eats spaghetti, etc.

Mother age	frequency	%
<30	44	22.0
30-35	70	35.0
36-40	86	43.0
Total	200	100.0
<b>Sex</b>		
Female	200	100.0
Total	200	100.0

22% of the mothers age were below 30 years, 35% between 30-35,43% 36-40.

#### BODY MASS INDEX

Mother BMI	Frequency	%
Normal	54	27.0
Overweight	122	61.0
Obese	24	12.0
Total	200	100.0

27% women were normal,61% overweight,12% obese.

	Mean	SD	t-value	p-value	Df
Height	1.63	0.12	182.35		
Weight	71.84	7.38	137.51	0.00	199

The mean and standard deviation of the result, height 1.63±0.12, weight 71.84±7.38 with p-value of 0.00,degree of freedom 199. Frequency Table

#### DISCUSSION

This cross sectional study was carried out to assess the feeding habits of mothers and the effect it has on the nutritional status of their infants in Owerri west L.G.A Imo State. Findings in this study in table 4.1 revealed that 63.5% of this mothers were married women whose occupation were mostly trading and farming. This study assessed the nutritional status, Anthropometric indices and feeding habits of both the mothers and their respective infants. The present study also showed that about 49% of the mothers in table 4.2 practiced complementary feeding habits for their infants which was corn porridge (ogi/Akamu) and were not supplemented with infant formula rather they used satched milk which they purchased. From Local Vendors or Soybean powder which they processed themselves. In the present study. In table 4.2 About 44% of mothers practiced exclusive breastfeeding for their infants while the rest 56% couldn't do so because they skipped meals most times or eat twice a day which was because of their socio economic status. The study recorded a decrease in the range of Fresh Fruit and vegetables consumption as most mothers failed to consume fresh fruit and vegetables which are rich in fibre and which is needed for the proper digestion assistance of both the mother and infants. This is in line with the works of (Laska, 2012) he documented that fibre help to slow transmit time and as well add a lot of bulkiness of food, moderate physical activities and boast calories. Findings in this study in table 4.3 revealed that 71.5% responded were just educated to O' level standard, a possible contributor to the fact that most of them did not have the knowledge to practice good feeding habits. Nutritional Education offers leverage for improving nutritional status of infants but it turns out that most mothers were ignorant of it especially when it comes to exclusive breast feeding (EBF). It is also revealed in table 4.3 that the socio economic status of the mothers also had a hand in the effect of the nutritional status of the infants as 20.5% earned less or equal to ₦20,000 (Twenty thousand naira) in a month. The meal skipping has been associated to the social economic status owing to the fact that they are from rural area and could provide little or no amount of food for themselves and family as well. This study also recorded in table 4.4 of the mothers 24 hours, dietary recall a high consumption of carbohydrate e.g. Fufu. Garri pasta and Rice. It is possible that mothers in this study become more urbanized and adopt lifestyle that will alter and make an increase in the nutritional status of their infants (Banwell *et al.*, 2009). It is suggested that an interaction for feeding habits and nutritional status is urgently needed for this population.

## CONCLUSION

This research was conducted among 200 mother in Owerri west local government area of imo State in order to assess their feeding habits and the effects it had on the nutritional status of their infants (3.6 months). It has concluded that few of the respondents had good nutritional knowledge and feeding habits. Also we saw a high percentage of mothers whose socio economic status were beyond standard These factors points towards increased efforts for higher feeding habits and good maintenance of the nutritional status of both mothers and infants

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