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The food preference and dietary practices of lactating Women in Port Harcourt, Nigeria

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Abstract

This study was under taken to assess the food preference and dietary practices of lactating women in Port Harcourt, Rivers State, Nigeria. This descriptive study was conducted among randomly selected one hundred and eighty one (181) lactating women attending post natal clinic in government model primary health care centre, Mile 3, Diobu, Port Harcourt. A structured questionnaire was used to obtain information on socio-economic characteristics and food preferences of lactating women. Body mass index (BMI) was determined using standard procedures. Data was analyzed using descriptive statistics and chi-square was used to determine association between variables. About half of the lactating women (44.8%) were eating preferred food to enhance breast milk production. Lack of money prevented (48.1%) from eating what they liked; and about 24.9% reported that this incident happens always. Underweight was high among those who always lack money for food. About (32.6%) were overweight and (21.5%) were obese.

In conclusion, intervention programs such as nutrition education, food supplementation and dietary diversity should be emphasized during antenatal and lactation period to improve better health and nutrition status.

Keywords: Food, preference, practice, lactating

Introduction

The nutrient intake of lactating women is one of most important determinants of woman's health, well-being and the ability for long-term successful breastfeeding. Human lactation is a natural process, which is well established to provide many Healthy benefits for both mothers and their infants. Lactation also has many favourable effects on women, including reducing the incidence of typ-11 diabetes, metabolic syndrome, cardiovascular disease and cancer (Stuebe, *et al*; 2009). The nutrient intake of lactating women affects the nutrient content of breast milk and maternal health. As noted, many essential nutrients are secreted into breast milk and represent a significant proportion of nutrient intake in the material diet including most vitamins like vitamin B₂, vitamin A and vitamin D (Mulligan, *et al*, 2010) [5]. Thus, nutritional requirements for lactating women are higher compared to women who do not breastfeed. The nutrients that infants receive from breastmilk, and the mother's overall physical and mental health during breastfeeding, are all factors that affect the baby's early health and will continue to influence their health into later life (Takimoto *al et.* 2003) [8].

The lactation period is a major source of concern in developing countries because of its impact on the health and nutrition of infants. Lactating women from developing countries are considered nutritionally vulnerable groups because this period places a high nutritional demand on the mother. Inadequate maternal diet during this period will lead to poor secretion of nutrition in breastmilk and this can have long term impact on the child's health. It is reported that a lactating woman should produce about 700 to 800ml of milk per day and this requires an extra energy need of about 500 Calories per day and women who are severely malnourished have reduced lactation performance. Thus, the quantity of milk produced depends a lot on the mother's diet. The diet consumed by the mother will not only fulfill her own nutritional needs but will also enable her to produce enough milk for her infant (Allen, 2012) [1].

Both quantity and quality breastmilk is directly related to the mother's diet (Begum, 1984) [2]. A lactating mother therefore, requires adequate nutrition for prepare development of her baby.

A woman's nutritional status is particularly vulnerable to deficiencies in diet, care and health services. This is as a result of her cyclical loss of iron and child bearing. The period after birth in Nigeria is often marked by practices which affect nutrition and lactation. Such practices include, discarding of colostrums and avoiding certain foods due to superstitious beliefs. This study was designed to generate adequate information on nutrition and dietary practices of lactating women, which will form baseline for further studies to improve maternal and child nutrition.

Studies have been carried out to determine the association between food intake and dietary practices of lactating women in both developed and developing countries of the world. However, in Rivers State and Port Harcourt, limited work has been carried out to establish the association between food preference and dietary practice of lactating women. Hence, it is imperative to examine the nutritional status of lactating women in low resources setting for proper and appropriate intervention.

Materials and Methods

Study Design

The study was a descriptive cross-sectional study.

Study Area

The study was conducted in Port Harcourt Local Government Area of Rivers State, Nigeria, between January and April, 2018. Port Harcourt is the, capital of Rivers State, and located in the South-South region of Nigeria, with numerous international and national establishment. The study was carried out in the government model primary health care centre, in Nkpolu-Oroworukwo, Mile 3, Diobu, Port Harcourt.

Sampling Procedure

The study population consisted of 181 apparently health locating woman who attend well child clinic who volunteered to participate in the study. The minimum sample size of the lactating women recruited in the study were achieved using the prevalence of exclusive breastfeeding in Nigeria of 13% (NDHS, 2008). Using formula developed by (Gibson, 2004) [3]

$$n = \frac{z^2 pq}{d^2}$$

Where, n = minimum sample, size

Z = standard normal deviation corresponding to 95% confidence level set at 1.96.

P = 13% = 0.13

q = 1 – p (1-0.13 = 0.87)

d = desired precision, 5% (0.05)

$$S = \frac{1.96^2 \times 0.13 \times 0.87}{0.05^2} = 173.8 = 174$$

The minimum sample size for the study was 174 lactating women. But there was the possibility that some questionnaire would not be fully filled or got spoilt, hence, about 10% of 174 were added to the actual sample. Then 10% of 174 was 17 which amounted to 181.

Data Collection

Four research Assistants students were trained on questionnaire administration and measurement procedures. A structured questionnaire which was validated by lectures in programmes in food science and Technology and Home Science and management in the Department of Food Science and Technology. Information on the socio-demographic characteristics, anthropometric status, food consumption profile and factors that influence the Respondents food habit were obtained.

Data Analysis

Data was analyzed using SPSS (20.00) version. Descriptive statistics such as frequencies, percentages and means were used to analyze data. Chi square test and Pearson's correlation coefficient was used to determine the relationship between variables.

Result

Table 1 shows the socio-demographic characteristics of lactating women in Port Harcourt. Their age ranged between 15-35 years. Some (35.9%) were within the age range of 30 – 34 years, while (9.4%) fell between 15-19 years. Majority of the women (87.3%) were Christians, while (3.3%) were Muslims. The mothers had different levels of educational attainments, with the highest (61.3%) attained secondary education, followed by primary education (14.9%). Majority of the women were business women (60.7%), while (35.4%) of the mother were civil servants.

Table 1: Socio-economic profile of the lactating women

Parameters	Frequencies	Percentages
Age		
15-19	17	9.4
20 – 24	32	17.7
25-29	40	22.1
30-34	64	35.9
35 and above	27	14.9
Total	181	100
Religion		
Christian	158	87.3
Muslim	6	3.3
Traditional	17	9.4
Total	181	100
Level of Education		
No formal education	20	11.0
Primary Education	27	14.9
Secondary education	111	61.3
Tertiary education	23	12.7
Total	181	100
Occupation		
Civil servant	64	35.4
Business	110	60.7
Unemployed/Student	3	1.7
Medical health personnel	4	2.2
Total	181	100

Table 2 shows that (48.1%) of the lactating women ate three times meal daily while (1.74%) do eat once per day. About half of the respondent (51.4%) ate breakfast daily. And (39/8%) consumed snacks while (12.2%) rarely snacks between meals. Majority (65.7%) prefer taking non-alcoholic beverages, while (5.0%) take alcoholic drinks.

Table 2: Food consumption profile of the participants

Parameters	Frequencies	Percentages
Number of meals per day		
One	3	1.7
Two	45	29.9
Three	87	48.1
More than three	46	25.4
Total	181	100
Number of day/week breakfast was eaten		
None	9	5.0
1-2 days	10	5.5
3-5 days	69	38.1
Daily	93	51.4
Total	181	100
Snacks consumption frequency		
Never	53	19.3
Rarely	22	12.2
Sometimes	72	39.8
Always	34	18.8
Total	181	100
Type of drink prefer taking		
Non-alcoholic	119	65.7
Alcoholic	9	6.0
Any type of drink	53	29.3
Total	181	100

Table 3 shows the factors that influenced the food habit of lactating women. About (44.8%) said that the reason eating the food they ate after delivery was to enhance breast milk producing white (26.0%), ate the food because they were asked to eat the food. some (48.1%) did not eat what they liked due to lack of money. Majority of the participants (76.8%) believed that there were particular food that affects breast milk production during lactation, while (9.9%) did not know the particular foods that affects breast milk production during lactation. About (40.9%) ate pap (corn grel) while (9.4%) of the respondents took palm wine to support breast milk production.

Table 3: Factors influencing food habit of lactating women in Port Harcourt

Parameters	Frequency	Percentage
Reasons for eating the food so often		
To enhance breast milk production	81	44.8
That is what I can afford	53	29.3
I was instructed to eat it	47	26.0
Total	181	100
How often does lack of money prevent you from eating what you want?		
Never	17	9.4
Rarely	32	17.7
Sometimes	87	48.1
Always	45	24.9
Total	181	100
Do particular food affect breast milk during lactation?		
Yes	139	76.8
No	24	13.3
I don't know	18	4.9
Total	181	100
Food usually taken to support breast milk production		
Pepper soap	29	16.0
Tea	61	33.7
Pap (corn grel)	74	40.9
Palm wine	17	9.4
Total	181	100

Table 4 shows the nutritional anthropometry of the lactating

women in Port Harcourt. The result revealed that the mean BMI of the women was $25.44 + 6.51$. On the indices of the respondents, (11.0%) of the respondents were underweight, (32.6%) were overweight while (21.5%) were obese and (34.8%) had normal body mass index.

Table 4: Body mass index (BMI) of Lactating Women

Parameters	Frequency	Percentage
Underweight (MBI < 18.50)	20	11.0
Normal weight (18.50 – 24.9)	63	34.8
Overweight (25.0 – 29.9)	59	32.6
Obese (BMI >30)	39	21.5
Total	181	100

Discussion

The energy cost of lactation is generally considered to represent a substantial drain on maternal nutritional metabolism. Lactating women especially from developing countries are considered nutritionally vulnerable groups because this period places a high nutritional demand on the mother. Nutritional practices play a significant role in maintaining the health status of an individual. Practices permitting an adequate diet in quality and quantity contribute to the health of the individual. Nutritional practices and patterns are developed by people's tendency to settle into fixed food habits. Food preferences were predictive of dietary outcome measures. In this study, the distribution of the number of meals per day shows that 24.9% ate two times per day, 48.1% of the women ate three times per day, while 25.4% are more than three time per day.

This implies that 74.6% of the lactating women were not taking additional meal apart from the three meals or less for the day during the time of lactation. Similarly, Ukegbu (2014)^[9] had reported a proportion of 50.1% and 26.3% of lactating women taking meals three and more than three times per day respectively, in a study carried out to examine the nutritional status and dietary intake of lactating women in Umuahia, Abia State, Nigeria. These findings corroborate with findings of Haileslassie (2013)^[4], which reported that 73% ate three meals and above per day in a study that assessed the feeding practices and nutritional status of lactating women in Samre Woreda South East Zone of Tigray, Ethiopia. As nursing mothers, it shows that food to support breast milk production and availability of financial resources to obtain the food items appeared to be contributing factor to the food preference of lactating women in this study.

About half (44.8%) were eating the preferred food to enhance breast milk production. In the same vein, about half (48.1%) said that lack of money does prevent them from eating what they liked and 24.9% reported that this incidence happens always. This was similar to Allen (2012)^[11], who reported that poverty was observed to prevent about 50.1% of the lactating women from eating the preferred food in a study carried out to assess the importance of maternal status and intake on infant status. The lactating women said that some food affects breast milk production. About 40.9% of the women usually took pap (corn grel) to support breast milk production, while some took palm wine for breast milk production. It should be noted that lactating women in this part of Nigeria usually drink palm wine after birth to help in milk production.

In this study, the anthropometric measurements of the lactating mother showed that the women had a mean BMI of $25.44 + 6.51 \text{ kg/m}^2$. This result was similar to a mean BMI of $27.31 + 3.4 \text{ kg/m}^2$ among lactating mothers in a study by Ukegbu (2014)^[9].

This study also implicated that 32.6% of the women were overweight, while 21.5% were obese. This could be indicative of African culture where overweight and obesity are socially acceptable as a sign of wealth and good living. In Nigeria, among the ethnic group where this study was carried out, weight gain during lactation period is considered normal (Ukegbu, 2014) ^[9]. In this part of the world, after a women's delivery, mothers are expected to be confined at home and adequately cared for by their husbands and relatives (called Omuquo).

This creates an opportunity for them to nurse their baby, feed well and reduce exercise (fattening room) Ukegbu and Uwaegbutes, (2012). The proportion of the mother who were underweight in this study was 11.0% of the lactating women. This is comparatively lower to the findings of Sounya (2007) who reported 26.0% in a similar study in India. This may be connected to the study site as this study was carried out in a large city in Nigeria.

Due to poverty and low socio-economic status, some lactating women tend to take what they can afford and this indirectly impacted on their nutritional status. As observed in this study, the relationship between nutritional anthropometry of lactating mothers and lack of money which prevents them from eating preferred food. The association revealed that underweight was high among those who always fail to eat the preferred food due to lack of money, while overweight and obese was more common among those who never or rarely ate desired food due to lack of money. Hence, there was a statistically significant relationship $P < 0.05$ ($P = 0.002$) between prevention from eating preferred food due to lack of money and nutritional anthropometry of lactating mother in this study. Therefore, intervention is imperatively needed.

In conclusion

Intervention programs such as nutrition education, food supplementation and dietary diversity should be emphasized during antenatal and lactation period to improve better health and nutrition outcomes.

Due to the cross sectional nature of the study, it is suggested that longitudinal assessment be carried out in the study area in order to ascertain nutritional status of lactating women over a longer period of time.

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