

Demographic Determinant of Nutritional Practices of Nursing Mothers in Rivers State, Nigeria

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ABSTRACT

This study investigated the Social demographic determinants of nutritional practice among nursing mothers in Rivers State. The study adopted a survey design. The population for the study was 1,880,706 nursing mothers in Rivers State. A total of 800 nursing mothers were sampled using proportionate stratified random sampling technique from the population for the study. The study made use of a validated researcher-structured questionnaire titled "Nutritional Practices Questionnaire (NUPQ) with a reliability index of 0.86 to collect data for to collect data for the study. The researcher administered 800 copies of the questionnaire. However, 773 were correctly filled representing 96.6% return rate. Percentage, mean, standard deviation, and ANOVA were used to analyze the data. It was found that the nursing mothers' nutritional practice was fair(2.51 ± 1.01). It was also discovered that age and level of education significantly influenced the nutritional practices of nursing mothers ($P < 0.05$). The study concluded that the nutritional practices of the nursing mothers is not encouraging. Hence the nursing mothers need to be proper educated and counselled on proper maternal nutrition. It was recommended among others that the government should invest massively nutrition educational programmes for nursing mothers about the benefits of good nutrition and how to incorporate healthy foods into their diets. This education programs can be offered through healthcare providers or community organizations to help improve the nutritional practices of nursing mothers.

Keywords: Nutrition, nursing mothers, nutritional practices, demographic determinants

INTRODUCTION

Nursing Mothers' malnutrition affects the child development and maternal mortality. Lactating women's nutrition affects the developing infant, thus it's crucial. Nutrition education for moms should prioritize breast milk for the first six months and suitable and timely supplementary foods at six months, with increased feeding frequency and food consistency, quality, and diversity as the child matures. However, poor dietary knowledge and feeding practices often cause malnutrition more than a lack of food. Nutritionally informed women raise healthier children than those without nutrition expertise (Akinrinmade, et al., 2019).

Nutrition studies how nutrients and other food components affect an organism's development, reproduction, health, and disease. It involves eating, absorption, assimilation, biosynthesis, catabolism, and excretion (Fadare, et al., 2018).

To accomplish all 17 Sustainable Development Goals (SDGs) by 2030, the UN recommends improved health and well-being. Due to global health care demand, this refers to a larger definition of health than before. Despite this goal, mother and child health is a global issue. Maternal and child under nutrition, including stunting, wasting, and vitamin and mineral deficiencies, is a global issue that affects survival,

disease incidence, development, and economic output.

Undernutrition is a major cause of poor maternity, neonatal, and child health (MNCH) outcomes in underdeveloped countries, although it is rarely addressed. Maternal under nutrition affects child development and mother-child health. Poor newborn feeding methods can harm children's health, nutrition, and physical and mental development (UNICEF, 2015). Breastfeeding affects a child's growth and nutrition. WHO (2014) recommends exclusive breastfeeding as the best way to save a kid.

The Federal Ministry of Health (2015) reported 28,000 malnourished nursing mother and infant deaths in Nigeria. Malnutrition among nursing mothers and children in 2016 led to the Federal Government Policy on Mother Care (Abiodun, 2018). In 2018, the Rivers State Ministry of Health reported that over 600 nurses were malnourished due to inadequate nutritional practices. Suboptimal breastfeeding causes 77% and 85% of under-5 mortality and DALYs worldwide (Black, et al., 2013). Suboptimal breastfeeding, especially non-exclusive breastfeeding in the first six months, causes 1.4 million deaths and 10% of the disease burden in children under five, according to Black, Victoria, and Walker. Suboptimal breastfeeding during the first months of life is a risk factor for newborn and childhood illness and mortality in underdeveloped countries, mainly from diarrhoea and acute respiratory infections (WHO, 2011). Most Rivers State nursing mothers understand nutrition. Nursing mothers are mindful of feeding themselves and their babies. Rivers State breastfeeding mothers' nutritional dietary choices vary. Adesina (2018) found that nursing moms' nutritional practices affect their ability to obtain nutritional foods. According to Adesina, nursing moms and their babies must feed medically. Some nursing moms think nutritional knowledge and practice are a waste of time and resources, while most find it hard to buy nutritious meals during and after childbirth.

Due to their inability to obtain specific essential items when nursing, nursing women' nutritional knowledge becomes careless and inconsistent (WHO, 2011). Most nursing mothers can't afford nutritious food for themselves and their newborns, according to Okafor (2018). Knowledge is different from attitude. Attitude is a complex mental state including beliefs, feelings, values, and inclinations to act, according to Oxford Dictionary (2018). Kendra (2018) describe attitude as feelings, thoughts, and actions toward a person, thing, or event. Kendra and Steven say that experience and upbringing can shape attitudes and conduct.

Most educated nursing mothers cannot follow nutritional guidelines. Abiodun (2018) found that 60% of Nigerian educated nursing women need nutritional feeding education. Nursing mothers who don't know about nutrition should be reeducated for their own and their babies' sake. Intensive health education helps them comprehend Rivers State nursing mothers' dietary needs and reorients them. Health education, according to Achalu (2019), instills excellent health and healthy living in youth and society. Achalu added that health education bridges the gap between knowledge and practice.

Age, gender, religion, and marital status also affect behavior change. Andelem, Dube, and Getiye (2017) discovered that age, gender, and culture affected mothers' dietary recommendations. Age and gender showed no significant effect on knowledge, however the mean score of respondents differed by age and gender. Akeredolu, et al. (2014) found no association between age, gender, marital status, religion, and nutritional practices in Lagos nursing moms. Demographic characteristics affect Nigerian mothers' knowledge, attitude, and behavior. Thus, Rivers State nursing mothers need nutritional knowledge, attitude, and practice assessments.

Nutrition is crucial to children's health and growth. Malnutrition is still too high and development too slow. The Global Nutrition Report 2018 found 150.8 million stunted, 50.5 million wasting, and 38.3 million overweight children under five. 20 million babies are born underweight annually. Undernourished children are more susceptible to illnesses and die younger. Malnutrition causes over 50% of under-5 fatalities (WHO, 2020). Maternal and newborn mortality is high in underdeveloped countries, including Nigeria (Tessema et al., 2019; Wellega et al., 2015). (Fadare et al., 2019). Many studies have connected hunger to maternal and

newborn mortality (Okonofua et al., 2018; WHO, 2019).

Feeding infants and young children improves survival and growth. For optimal survival, growth, and development, infant and young child feeding regulations encourage exclusive nursing from birth to 6 months and continuing breastfeeding to 24 months and beyond. In Nigeria, just 17% of newborns under six months are exclusively breastfed (Akinrinmade et al., 2019). In Rivers, the fifth largest state by GDP, maternal and child health intervention appears ineffectual as high rates of maternal and newborn mortality continue to reach annual records (FMoH, 2019). Rivers nursing mothers' nutritional practices are not well-documented, which could help improve the program. Hence, this study investigated the demographic determinants of nutritional practices among nursing mothers in Rivers State.

Research questions

The study answered three research questions shown below:

1. what is the nutritional practices of nursing mothers in Rivers State?
2. What is the nutritional practices of nursing mothers for healthy living in Rivers State based on age?
3. What is the nutritional practices of nursing mothers for healthy living in Rivers State based on level of education?.

Hypothesis

The following two hypotheses were tested at 0.05 alpha level

1. The nutritional practices of nursing mothers for healthy living in Rivers State is not significantly different based on age.
2. The nutritional practices of nursing mothers for healthy living in Rivers State is not significantly different based on level of education.

METHODOLOGY

The study adopted a survey design. The population for the study was 1,880,706 nursing mothers in Rivers State. A total of 800 nursing mothers were sampled using proportionate stratified random sampling technique from the population for the study. The study made use of a researcher-structured questionnaire titled "Nutritional Practices Questionnaire (NUPQ) to collect data for the study. The instrument was validated by the project supervisor and two other experts. The reliability of the instrument yielded a coefficient of 0.86. The researcher administered 800 copies of the questionnaire. However, 773 were correctly filled representing 96.6% return rate. Percentage, mean, standard deviation, and ANOVA were used to analyze the data.

RESULTS

Table 1: Analysis of Nutritional Practices of Nursing Mothers for healthy living in Rivers State

S/No	Nutritional attitude	Responses						Decision
		A	O	R	N	Sum	X	
36	I breast feed my child/children many times a day	464	309	0	0	773	3.60	Excellent
37	I eat plenty of beans on daily basis	0	464	309	0	773	2.60	Good
38	I feed my child with eggs, crab, snail and fish.	541	386	387	0	773	2.50	Fair
39	I eat red beef and chicken	232	232	232	77	773	2.80	Good
40	I usually eat (have meals) at the same time of the day	77	77	387	232	773	2.00	Poor

41	I eat fruits e.g. Oranges, lemon and tangerine, guava, which are rich in vitamin C.	387	386	0	0	773	3.50	Excellent
42	I eat, fufu, bread, rice which are rich sources of carbohydrate	464	309	0	0	773	3.60	Excellent
43	I wash hand thoroughly before eating	696	77	0	0	773	3.90	Excellent
44	I drink carbonated beverages such a Fanta, Coke, Sprite etc	646	155	154	0	773	3.40	Excellent
45	I eat more of white meat than red meat	0	154	619	0	773	2.20	Poor
46	I drink plenty of water during day	387	309	77	0	773	3.40	Excellent
47	I eat lots of snacks	0	232	541	0	773	2.31	Poor
48	I consume my salads without salad dressing	0	231	542	0	773	2.30	Poor
49	I eat food slowly in order to take my time in chewing the food.	0	310	463	0	773	2.40	Poor
50	I eat lots of sea foods (such as periwinkle, crab, lobster etc)	154	619	0	0	773	3.20	Excellent
	Grant mean	258	239	250	26	773	2.51	

*A=4, O=3, R=2 and N=1 (crit =2.5). (A= Always. O = Occasionally. R = Rarely and N = Never), Mean (<2.5 = poor, 2.5-2.69 = fair, 2.7-2.99 = good and ?3.0 = excellent)

Table 1 showed the analysis of nursing mothers’ nutritional practices among nursing mothers in Rivers State. The result revealed that most (ten items) of the practice statements had weighted mean scores above the critical mean of 2.5 but five item t had a weighted mean score below the critical mean. Among all the nutritional practice statements, ‘I wash my hand thoroughly before eating’ had the highest weighted mean score of 3.90 while ‘I usually eat (have meals) at the same time of the day’ had the lowest weighted mean of Over all, all the statements had a weighted mean score of 2.51. Based on the average over all weighted mean of 2.51 which is slightly above the critical mean value, it was concluded that nursing mothers inRivers state had fair nutritional practices

Hypothesis 1: The nutritional practices of nursing mothers for healthy living in Rivers State is not significantly different based on age.

Table 2: Summary of One-way ANOVA of Nutritional Practice of Nursing Mothersfor healthy living in Rivers State based on Age

Nutritional Practices	Sum of squares	Mean square	f.cal	Df	P.val	Decision
Between group	300.313	100.104		3		
			174.556		.00	Significant (P<0.05)
Within group	441.006	0.573		769		
Total	741.320			772		P<0.05

Table 2 shows that the calculated f-value and P.val was 174.556and P<0.05 at 3 and 769 degrees of freedom, and 0.05 alpha level. Since calculated f-value is greater than the critical f-value, the null hypothesis was rejected. Therefore, there is a significant statistical difference in the nutritional practices of nursing mothers in Rivers State based on age.

Hypothesis 2: The nutritional practices of nursing mothers for healthy living in Rivers State is not significantly different based on level of education.

Table 3: Summary of One-way ANOVA of Nutritional Practice of Nursing Mothers for healthy living in Rivers State based on level of Education

Nutritional Practices	Sum of squares	Mean square	f.cal	Df	P.val	Decision
Between group	39.939	19.970		2		
			21.923		.00	Significant (P<0.05)
Within group	701.380	0.911		770		
Total	741.320			772		P<0.05

Table 3 shows that the calculated f-value was 21.923 and P<0.05 at 2 and 770 degrees of freedom, and 0.05 alpha level. Since the calculated f-value is greater than the critical f-value, the null hypothesis was rejected. Therefore, there is a significant statistical difference in the nutritional attitude of nursing mothers in Rivers State based on level of education.

DISCUSSION OF FINDINGS

The connection between healthy nutrition and human health is not in any way a trivial public health matter (WHO, 2018). Quite a great number of articles have authenticated the grave need for adequate nutrition, especially for nursing mothers and young children. This study, in addition to establishing nutritional knowledge and attitude of nursing mothers, went a step further to x-ray their practices. On this note, some ideal nutritional practices for nursing mothers as recommended by WHO, CDC, etc., were weaved into an easy-to-understand statement to ascertain the frequency at which nursing mothers engage in them.

The result of this study revealed that most (ten items) of the practice statements had weighted mean scores above the critical mean of 2.5, but five items had a weighted mean score below the critical mean. Among all the nutritional practice statements, 'I wash my hands thoroughly before eating' had the highest weighted mean score of 3.90, while 'I usually eat (have meals) at the same time of the day' had the lowest weighted mean of 2.00. Over all, all the statements had a weighted mean score of 2.51. Based on the average over all weighted mean of 2.51, which is slightly above the critical mean value, it was concluded that nursing mothers in Rivers state had fair nutritional practices.

The nutritional practice of nursing mothers in this study was not a reflection of either their positive attitude or their high knowledge as observed earlier. Thus, knowledge and attitude did not influence the nutritional practices of the nursing mothers. The fact that knowledge did not influence practice is challenging. This demand for raising eyebrows about the factors influencing their nutritional practice. Looking at Nigeria and the poverty rate in the country, it could be that low income is the determinant factor here. Second, the data for this study was collected during the COVID-19 pandemic, a time of extreme hardship and economic downturn, which, along with the high prices of goods, may have played a role.

This finding tallies with the findings of Kigaru, Loechl, Moleah, Macharia-Mutie, & Ndungu, (2015) and Shrestha et al. (2020). These authors found poor nutritional practices among younger children in Nairobi and Nepal, respectively. In their studies, they also found that people had a bad attitude and only a little knowledge, but in this study, they found that people had a good attitude and a lot of knowledge.

The current study's findings on the lack of a link between nutritional knowledge and practice differ from those of previous nutrition-related studies. In a study to investigate the integration of nutrition into HIV

management in Swaziland, Masuku and Lan (2014) discovered a substantial association between nutritional knowledge and practices. However, due to changes in context between the two studies (location and time), the findings of Masuku and Lan (2014) cannot be directly compared to those of the current study in the discouraging nutritional practices of the nursing mothers.

CONCLUSION

The current study findings is an indication that mothers in Rivers State are not engaging in healthy nutrition adequately. Also, the demographic determinants of the nursing mothers' nutritional practices were age and level of education. Hence, the empirical study highlights the need for improved nutritional education and resources for nursing mothers, particularly for younger and less educated mothers, to promote better health outcomes for both the mother and her infant.

RECOMMENDATIONS

The following recommendations were necessary for the findings of the study

1. Nutritional education programs for nursing mothers about the benefits of good nutrition and how to incorporate healthy foods into their diets. Education programs can be offered through healthcare providers or community organizations to help improve the nutritional practices of nursing mothers.
2. Nutritional counseling: Healthcare providers can offer individualized nutritional counseling to nursing mothers. This will help them to identify their specific nutritional needs and develop a meal plan that meets those needs.
3. Accessibility to healthy foods: It is important to ensure that nursing mothers have access to healthy foods. This can be achieved by increasing the availability of healthy foods in local stores and markets, as well as providing resources for nursing mothers to access healthy foods, such as food vouchers or assistance programs.

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