Nutritional Status of Under Five Children Attending State Hospital Okitipupa Ondo State

Akande, Y.O[1], Abata, G. D[2], Mosimabale, M.M[3], Babalola, A.O[4], Abata, E. O[5*]

[1, 2, 3, 4]*Department of Nutrition and Dietetics, Federal Polytechnic Ede, Osun State, Nigeria*
[5]*Department of Chemistry Federal University of Technology, Akure, Ondo State, Nigeria*
*Corresponding author

*Abstract:-*This study was carried out to assess the nutritional status of children under 5 year in Okitipupa. A total number of 340 children were assessed using anthropometric indices. The result revealed the age distribution of the respondent base on gender which 9.8% were within the age range 1-10 months, 20.9 % within 11-20 months, 16.3 % within 21-30 month, 14.4 % within 31-40 months, 13.1 % within 41-50 months, 25.5 % within 51-60 months for male also 18.9 %, 17.1 % 9.6 %, 23.5 % and 16.5 % were with the age range of 1-10, 11-20, 21-30, 41-50 and 51-60 months for female moreover that only 36.47 % said their baby were currently on exclusive breastfeeding, furthermore 24.2 %, 14.4 %, 13.0 %, 27.5 %, 9.8 %, and 11.1% were Normal, Stunting, Wasting, Underweight, Overweight and Obese for male respectively while 22.05 %, 16.7 %, 13.82 %, 21.76 %. 10.29 % and 15.29 % were Normal, Stunting, Wasting, Underweight, Overweight, and Obese for female respectively. Conclusively there is high level of malnutrition, especially stunting among the under five children and this could be due to the mother not practicing exclusive breastfeeding, low level of income and unemployment rate among the parent which needs intervention and Federal government of Nigeria, (NGO), while the Nutrition Society, Association of Nigeria Dietitian should encourage mothers to practice exclusive breastfeeding for 6 months.

Keywords: Nutritional status, Anthropometric, Stunting, Exclusive breastfeeding.

I. INTRODUCTION

Malnutrition refers to deficiencies, excesses or imbalances in a persons intake of energy and or nutrients [1], Undernutrition remains a significant health burden among children living in low- and middle-income countries [2]. According to the World Health Organization (WHO), approximately 45% of childhood deaths in 2011 were caused by undernutrition[3]. Apart from causing significant childhood mortality, undernutrition also leads to significant physical and functional deficits among survivors, including impaired cognitive development, fewer years of schooling, lower economic productivity, the lower birth weight of offspring, and potentially increased risk of certain chronic disease in adult life. [4].

In Nigeria, the trends of stunting and underweight between 1990 and 2008 among under-five children have remained largely unchanged despite several approach and attempt at reducing it. [5,6, 7]. According to the National Demographic and Health Survey (NDHS) conducted in 2013, the prevalence of stunting, underweight, and wasting among the under-five children are 37%, 29%, and 18%, respectively. The persistence of child malnutrition in low-income countries appears to be due to multiple factors that include uncertain access to enough food and inappropriate dietary practices [8,9]. Therefore this study asses the prevalence of malnutrition among under five children

II. MATERIAS AND METHOD

2.1 Materials

2.2 Methods

The methodology used in this study describes the research design, population, and sample which was to assess the nutritional status of under five children attending post natal clinic at State Hospital Okitipupa. A systematic random sampling was used to obtained data from three hundred and forty mothers(340) in which the sample size was determined using a fischer formula

$$N= \frac{Z^{2X}/_{2\ P(1-P)}}{W^2}$$

Data obtained was analyzed using statistical package for social science version 23 to get the frequency and percentage.

III. RESULT AND DISCUSSION

3.1 Result

The age distribution of the respondent base on gender which revealed that 9.8% were within the age range 1-10 months, 20.9% within 11-20months, 16.3% within 21-30 month, 14.4% within 31-40 months, 13.1% within 41-50 months while 25.5% within 51-60 months for male also 18.9%, 17.1% , 9.6%, 23.5%, and 16.5% were with the age range of 1-10, 11-20, 21-30, 41-50 and 51-60 months respondent for female Table 1:

Table 1: Age Distribution of the Respondents Based On Gender

Age (months)	male		female	
	N	%	N	%
1-10 months	15	9.8%	35	18.9%
11-20months	32	20.9%	27	14.4%
21-30months	25	16.3%	32	17.1%
31-40months	22	14.4%	18	9.6%

41-50months	20	13.1%	44	23.5%
51-60months	39	25.5%	31	16.5%
Total	153	100	187	100

Table 2: Shown from the statistical information it was revealed that 36.47% of the women contacted said their baby was currently on exclusive breastfeeding while 63.52% said they didn't practice exclusive breastfeeding Table2.

Table 2: The Baby Currently on Exclusive Breastfeeding

	Frequency	Percentages
Is the baby currently on exclusive breastfeeding	124	36.47%
The baby was on exclusive breastfeeding	216	63.52%
Total	340	100

Table 3: Shows the average monthly income of the parents revealed that 3.23%, 4.11%, 37.64%, 27.35%, 24.11% and 3.52% received within the amount of ₦1000-4000, ₦5000-9000, ₦10000-14000, ₦15000-30000, ₦31000-50000 and ₦50000 above respectively.

Table 3: Average Monthly Income

	Frequency	percentage
#1000-4000	11	3.23%
#5000-9000	14	4.11%
#10000-14,000	128	37.64%
#15,000-30,000	93	27.35%
#31,000-50,000	82	24.11%
Above #50,0000	12	3.52%
Total	340	100%

The educational level of their mothers18.52%, 45.0%, 24.4%, 6.76%, 3.23%, and 2.05% had FSLC, SSCE, ND, HND/BSc, MBs, andPHD respectively Table 4.

Table 4: Highest Educational Qualification of the Mother

	Frequency	percentages%
FSLC	63	18.52%
SSCE	153	45.0%
ND/\NCE	83	24.4%
HND/BSC	23	6.76%
M.SC	11	3.23%
PHD	7	2.05%
TOTAL	340	100

the nutritional status of the under five children revealed that 24.2%, 14.4%, 13.0%, 27.5%, 9.8% and 11.1% were Normal, Stunting, Wasting, Underweight, Overweight, and Obese for male while 22.05%, 16.7%, 13.82%, 21.76%. 10.29% and 15.29% were Normal, Stunting, Wasting, Underweight, Overweight and Obese for female respectively(Table 5).

TABLE 5: Nutritional Status Of The Under Five Children

Parameter	male		female		total	
	frequency	%	frequency	%	frequency	%
Normal	37	24.2%	38	20.3%	75	22.5%
Stunting	22	14.4%	35	18.7%	57	16.76%
Wasting	20	13.0%	27	14.4%	47	13.82%
Underweight	42	27.5%	32	17.1%	74	21.76%
Overweight	15	9.8%	20	10.7%	35	10.29%
Obese	17	11.1%	35	10.7%	52	15.29%
Total	153	100	187	100	340	100

The level of the severity of underweight among the children in which 57.1%, 42.9% were mildly underweight and severity underweight for male respectively while 59.1% and 40.5% were mildly underweight and severity underweight for female respectively (Table 6).

Table 6: Severity of Underweight in under five Children

Parameter	male		female		total	
	frequency	%	frequency	%	frequency	%
Mild stunting	24	57.1%	20	62.5%	44	59.4%
Severe	18	42.9%	12	37.5%	30	40.5%
Total	42	100	32	100	74	100

3.2 Discussion

In order to assess the nutritional status of under five children, anthropometric indices were used and compare with past literature and WHO's reference growth chart. Deviation of the anthropometric indices from the standard value is regarded as an evidence of malnutrition. In this study, it was revealed that (16.76%) of the children were stunted, and is lower than the result of a survey conducted in Nepal Medical College Teaching Hospital (41%) [10].

A total of 9.8% of the under five children (girls) were underweight also (9.8%) underweight for the male which was lower than 21.4% and 16.8% reported for male and female (10) and this study also oppose the other study that boys are more underweight that girls [10]. Under nutrition and weak immunological status can raise the chance of susceptibility and vulnerability to infections in under five children main causes of malnutrition and inadequate dietary intake and frequent episodes of diarrhea and respiratory disease. In addition to severe malnutrition, even mild to moderate malnutrition lead to various infections and the risk of child health [11]. Anthropometric indices in this study reveal that the percentage of a child affected with malnutrition was higher than those with normal for their nutritional status.

IV. CONCLUSION AND RECOMMENDATION

In conclusion, the result of this study revealed the level of high prevalence of malnutrition, especially stunting among the under five children and this could be due to the mother not practicing exclusive breastfeeding, revealed low level of income and unemployment rate among the parent which needs intervention and Federal, State, and Local, NGO and the Nutrition Society, Association of Nigeria Dietitian should encourage the mother to practice exclusive breastfeeding for 6 months and also parents should practice home grown garden to feed their family and have access to foods.

REFERENCE

[1]. Bain, L.E, Awah P.K, GeraldineN, Kindong N.P, Sigal Y, Bernard N, Tanjeko T. T (2013). Malnutrition in Sub-Saharan Africa: Burden, causes and prospects. Pan Afr Med J 15:120 p1-10.

[2]. BlackB. E, Victora C.G, Walker S.P, BhuttaZ.A,ChristianP, de OnisM (2013). Maternal and child under nutrition and overweight in low-income and middle-income countries. Lancet 82:427-51.

[3]. Martorell R, ZongronenA (2012). Intergenerational influences on child growth and undernutrition. PaediatrPerinatEpidemiol 26 Suppl 1:302-14

[4]. Maziya-Dixon B, Akinyele I.O, Oguntona E.B, Nokoe S, Sanusi R.A, Harris E.2001-2003 Nigeria Food Consumption and Nurition Survey 2001-2003 Summary. Ibadan, Nigeria: International Institute of Tropical Agriculture; 2003

[5]. National Population Commission (NPC) [Nigeria] and International. Nigeria Demographic and Health Survey (NDHS)2013. Abuja, Nigeria, Rockville, Maryland, USA; 2014

[6]. NPC/ORC Macro. Nigeria Demographic and Health Survey 2003. Calverton, Maryland: National Population Commission and ORC Macro; 2004.

[7]. Population Division Ministry of Healthand Population, Nepal Demographic and Health Survey (2011). Preliminary Report. New Era ICF Macro. 2011

[8]. Smith L.C, Ruel M.T, Ndiaye A (2005). Why is child malnutrition lower in urban than in rural areas? Evidence from 36 developing countries. World Dev 33:1285-305.

[9]. United Nations Children's Fund (UNC). (2015): Improving Child Nutrition: The Achievable Imperative for Global Progress. Availablefrom: http://www.unicef.org/publications/index_68661.html.[Last accessed on 2015 Jul 13].

[10]. World Health Organization (WHO). (2016).What is malnutrition online Q&A page 1

[11]. World Health Organization (WHO). Children: Reducing Mortality. (2015) Available from: http://www.who.int/mediacentre/factsheets/fs178/en/. [Last accessed on 2015 Jun 21].