

Full Length Research Paper

Assessment of the nutritional status among under-five children in Evbuotubu community Egor Local Government Area, Edo State

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Malnutrition is among the leading cause of deaths in children below age five in the developing countries. For MDG goal to be met, under-five malnutrition is to be reduced to the barest minimum if not eradicated. This is aim at assessing the nutritional status among under -five children in Evbuotubu Community Egor Local Government Area, Edo State. A descriptive cross sectional survey design was used in a sample size of 272 mothers with 544 under-five children. Questionnaire, observational checklist and instrument for anthropometric measurement were used to collect data using convenient sampling technique. Data collected were analyse using descriptive statistics, hypothesis were tested using chi-square at 0.05 significant level. Result show that 196(36.1%) of the children were underweight with 250(46.0%) of them been stunted and 138(25.4%) wasted, out of 36.1% underweight children, 112(20.6%) were boys and 84(15.4%) girls. In addition, of the 25.4% wasted 72 (13.2%) boys and 66(12.1%) were girls. Also mother's level of education was a significant predictor for weight-for-age ($p=0.042$ AOR: 2.300, 95% CI: 1.032 – 5.127), and mother's age for being a strong predictor for child wasting with $p= 0.012$ AOR: 3.462, 95% CI: 1.313 – 9.131). To improve nutritional status of under-five children, education of the mothers/care givers should be made compulsory. Information on good nutritional practices should be provided by health worker at all level of health care. Government should provide at least one square meal which is fortified with adequate nutrient for all under-five children.

Keywords: Maternal knowledge, nutritional status, underweight, under five children.

BACKGROUND TO THE STUDY

Nutrition is an important part of a child's growth and development, especially the first two years of life which are considered to be the window of opportunity where we can improve the wellbeing of a child (WHO, 2016). Nutrition is involved in each life cycle, starting in the womb (foetal), infant, child, adult, and elderly. The period of the first two years of life is considered to be a critical period, because growth and development occurs very rapidly during this period. Poor Nutrition during this period

can cause malnutrition that creates permanent disorders, which means, it cannot be recovered even if the nutritional needs can be fulfilled (Jafar, 2011). Malnutrition is a pathological state resulting from inadequate nutrition. It is broadly classified as under-nutrition, as a result of insufficient intake of energy and other nutrients, and over-nutrition due to excessive consumption of energy and other nutrients (Susanne, 2009). While nearly 12 million children die each year in developing countries mainly from preventable causes, the death of over 6 million (55%), are either directly or indirectly attributable to malnutrition; mainly under nutrition (UNICEF, 2017). Malnutrition is said to be the underlying factor of about 80% of childhood deaths in Nigeria

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(FMOH, 2010). Studies have shown that many of these children are wasted, stunted or malnourished. According to a cross-sectional descriptive study by Badake, Maina, Mboganie, Muchieme, Kihoro, Chelemo and Mutea (2010) to determine the nutritional status of children under five years and associated factors in Mbeere South District in Kenya. Result shows that up to 39% of the children were stunted; 7.1% were wasted; and 18.1% underweight. The prevalence of stunting and wasting was significantly higher in boys than in girls ($\chi^2 = 6.765$, $P = .034$) and ($\chi^2 = 13.053$, $P = .036$), respectively. Similarly Sufiyan, Bashir, and Umar (2012); using a multistage sampling technique aimed to assess the effect of maternal literacy on the nutritional status of children under-five in Babban-dodo, Zaria, North-western Nigeria, revealed that out of the 300 children studied, 87 (29%) were found to have underweight, 21 (7%) were wasted, and 93 (31%) were stunted, majority (65%) of the mothers/caregivers have no form of formal education and a significant statistical association between maternal literacy status and occurrence of malnutrition was found (specifically stunting) among the children studied ($X^2 = 26.2$, $df = 1$, $P < 0.05$). More also, Galgamuwa, Iddawela, Dharmaratne and Galgamuwa (2017), in Sri-Lanka, reviewed that a total of 547 children who participated in the study 35.6%, 26.9% and 32.9% of children were under weight, stunting and wasting respectively.

Furthermore Gupta, Chakrabarti and Chatterjee (2016), in a cross-sectional study aimed to evaluate the effect of various maternal factors on the prevalence of underweight, stunting and wasting among under-five children in University of Calcutta, India. The findings reveal that prevalence of underweight and stunting among children was higher where mother's age was below 20 years indicating that mother's age showed significant effect ($p=0.0045$) on the prevalence of stunting which implies that the risk of early marriage of females can result in developing long term under nutrition of child. Other studies have attributed malnutrition among under-five to occupation and education of mothers or caregiver (Adenike, Abayomi, Olufemi, and Olayinka, 2006). Also, Akorede and Abiola (2013), in Akure Ondo revealed that household size had a negative correlation with the nutritional status of the children (underweight) ($r = -0.14$; $p < 0.05$), however household income was positively correlated with nutritional status of the infants (Stunting) ($r = 0.18$; $p < 0.05$). Other factors according to Akorede are level of mothers education which positively correlated with nutritional status of the children (stunting) ($r = 0.23$; $p < 0.05$) and hygienic practice (food preservation) which positively correlate between infants nutritional status (under-weight) ($r = 0.15$; $p < 0.05$). Similar findings was also reported by Sufiyan, Bashir, and Umar (2012) in North-western Nigeria, were majority (65%) of the mothers/caregivers have no form of formal education. There was a significant statistical association between

maternal literacy level and occurrence of malnutrition (specifically stunting) among the children studied. ($X^2 = 26.2$, $df = 1$, $P < 0.05$). Adetoro and Amoo (2014); using data from the Nigeria Demographic and Health Survey (NDHS) to investigate the predictors of child (aged 0-4 years) mortality in Nigeria, also revealed that the cross-tabulation analysis shows that that mortality rate was highest (49.14%) for children of illiterate mothers and lowest (13.29%) among mothers with higher education while in the logistic regression analysis, education of both parents and occupation of mothers were found statistically significant to reduction in child mortality rate.

STATEMENT OF PROBLEM

Under nutrition can lead to substantial problems in mental and physical development. In children, the impact of under nutrition on the cognitive abilities may lead to poor school achievement in later years. Under nourished children can also suffer several diseases from nutrient deficiencies. From the researchers' observation when on community posting to Evbuotubu Community, they marvel at how frail and malnourish some of the children in this community are looking, this generated the curiosities that lead to this study.

Purpose of the study: the purpose of this study was to assess the nutritional status of under- five children in Evbuotubu Community, Egor Local Government Area, Edo State.

Objective of the study

1. To assess the socio-demographic status of mothers in Evbuotubu Community, Egor Local Government Area, Edo State.
2. To examine the nutritional status of the under 5 children in Evbuotubu Community, Egor Local Government Area, Edo State.
3. To find the relationship between nutritional status of the under-five children and socio-demographic characteristics of their mothers.

Significance of the study

Findings from this study will reveal the nutritional status of the under-five children in Evbuotubu community, this will be useful in programme planning strategies, assessment and evaluation to better nutritional status of the children and to enhance mothers' nutrition knowledge, improve perception on the importance of immunization and antenatal services. This will further help to reduce child morbidity and mortality. Findings from this study will add to the existing literatures and may be used to increase the knowledge of the mothers on required nutrition for under-five children in Evbuotubu community.

MATERIALS AND METHOD.

Research Design; a descriptive cross-sectional survey design was used for this study.

Research Setting; This study was carried out in Evbuotubu community located in Egor Local Government area of Edo State, It is semi urban community with public and private hospitals, primary and secondary schools, a university (National Open University), and electricity supply, but limited sources of clean water. Geographically, it is less than 100kilometres to Benin the Edo State capital. It is bounded by Ovia-North West Local Government Area on the North and Oredo Local Government Area on the south. The closely associated neighbouring communities are Uzebu Quarter and Gelegele community. The community has a population of about 35, 200 (NPC, 2006) out of which farmers account for about 50%. The indigenes speak Bini and their occupation is mainly farming and trading. The predominant food and farm produce are yam, cassava, cocoyam, plantain and rice.

Target population; all the house hold in the community that has a mother or mother figure with under- five children.

Sample Size Determination; the study sample was 272 households each with a mother and 544 children under-five years 0-59 months of age. The difference between the number of households and the number of children is due to the fact that some households had more than one child under five, and both were taken for the study. The size was determined statistically by applying the population proportion sample size determination formula i.e. $n = z^2 P (1- P) / d^2$. This was arrived by using previous study that the children under five years with malnutrition are 80.0%, and an estimated difference between the actual proportion and the research value to be 0.05 at 95% confidence level $n = z^2 p (1-p) / d^2$ sampling distribution of proportion theory (Anyiwe, 2012) Where; n = desired minimum size.

z= standard normal deviate (which equates to 1.96 at a = 0.05).

p = prevalence rate (80%)

$1-p=1-0.80=0.2$

d= precision (level of error) =0.05

Therefore, $n = (1.96^2 \times 0.80 \times 0.2) / 0.05 = 245$

In order to provide an allowance for non-respondents (attrition) a 10% margin was given, amount to $d = n / (1 - nrr)$, $d = 245 / 1 - 0.1$

$d = 272$.

Inclusion Criteria: Mothers living in the Evbuotubu community and that has under-five children living with them for the past 5 year and houses with mothers and under five year children.

Exclusion Criteria: The under five children who have undergone major surgery, sickle cell disease patient and any other chronic illnesses were excluded and also any house that doesn't have mothers and under five year children was excluded from this study.

Sampling Technique; A purposive sampling technique was used to select the community among other communities in the local government area. Which was divided into 10 districts with each district having 27 house hold? All the house hold who were willing to participate and meet the criteria were all included in the study using convenient sampling technique

Instrument Data Collection tools

The instrument that will be used for this study is a self-structured questionnaire and instrument for anthropometric measurement including a checklist for physical examination

Section A elicits bio-data information of under-five year children

Section B was on the maternal knowledge on nutritional status of the children

Checklist for Physical Examination: The checklist is used for general inspection of oral hygiene, skin, eye and hair for any sign of malnutrition.

Weighing balance and measuring tape: this was used for measuring the weight of the child and their height in kilogram (kg) and metre (m) respectively. The anthropometric measurements made were used to determine indexes like weight-for-age, weight-for-height, and height-for-age which were used to classify the children as underweight, wasted and stunted. The nutritional status of the children was determined using the International Reference Population defined by U.S National Centre for Health Statistics (NCHS) and Centres for Disease Control and Prevention (WHO 2009). Height-for-age (HAZ), weight-for- height (WHZ), and weight-for-age (WAZ), the children were classified as stunting, wasting, and being under-weight, if the HAZ, WHZ, and WAZ were < 2 standard deviation (SD).

The length measurement was taken twice and an average of the two computed. In cases of large variances, the measurements were repeated until an acceptance variance was obtained.

Validity; The instrument for was validated by two expert in nutrition from university of Benin teaching hospital and an in measurement and statistic from university of Benin.

Reliability; Test-retest reliability of the research instrument was established during pretesting. The questionnaire was pre-tested on 10 mothers and their respective children under-five aged children, in another nearby community (Uzebu Community), the structured questionnaire was then rephrased in the light of the responses were respondent friendly and also the reliability of the other instrument was also tested by ensuring that they were up to the required standard. Test retest reliability was established by examining the consistency of pre-test responses and reliability co-efficient calculated. The reliability co-efficient was 0.67 and therefore the questionnaire was considered reliable.

Method of Data Collection; three males and two females with at least secondary school education who lives in the community were recruited as research assistant. The research assistants were trained by the

principal researcher on the study objectives, purpose and interviewing techniques based on the research instrument. The training also included demonstrations and practice in taking of anthropometric measurements and also on how to do physical examination through observation. Data were collected with the help of the research assistant on a daily basis from one house to another with three of the research assistants administering the questionnaire while the other two research assistants took anthropometric measurements and observed the children for any sign of malnutrition until the whole household of the community were exhausted. This takes a period of six (6) weeks.

Ethical Consideration; ethical clearance with ref. no. HM.1208/331 was collected from the ethics and research committee of the Primary Health Care (PHC) Department of Egor LGA, after submission of the research proposal. Informed consent was obtained from the participant in the study and confidentiality was maintained by assuring security and privacy to all mothers of the children after being educated on the study and its objectives.

Method of Data analysis; Data was analysed using descriptive statistics, mean, median percentage and standard deviation, hypothesis was tested using chi-square at 5% significant Socio-economic and demographic characteristics, maternal knowledge and practices on complementary).

RESULT

Objective one: Socio-demographic characteristics of under-five and mothers in Evbuotubu Community, Egor Local Government Area, Edo State

Table I reveals that majority 284 (52.2%) of the children are males, while 260 (47.8%) are females. 206(37.9%) which is majority are aged 21 – 40 months, 0 – 20 months old children were 202 (37.1%), 136 (25.0%) were 41 – 60 months old. The mean age of the children was 28.90 ± 0.96 months. Children in the 10.1 – 14.0 kg category had 188 (34.6%), 140 (25.7%) were in the 4 – 10.0 kg category. 122(22.4%), 52 (9.6%) and 42 (7.7%) are the in 14.1 – 18.0 kg, 18.1 – 22.0 kg and 22.1 & above weight categories respectively. The mean weight of the children was 14.06 ± 5.12 kg. The height of the children showed majority of the children 150 (27.5%) were in the 76 – 85 cm and 86 – 95 cm category respectively. 96 – 105 cm height category had 102 (19.0%) children, 66 (12.0%) were in the 66 – 75 cm category, while 44 (8.0%) was in the 55 – 65 cm height category and 32 (6.0%) in the 105.1 and above category.

Socio-demographic characteristic of mothers

Table II shows the demographic characteristics of the mothers in this study. The table shows that majority 139 (51.1%) of the mothers are in the age group 26 – 35

years while the least number of respondents 23 (8.5%) are in the age group 36 years and above with a mean age of 28.21 ± 0.35 yrs. Mothers with Secondary education were more with 112 (41.2%) of the respondents while no formal education had the least mothers with 14 (5.1%). 172 (63.2%) of the mothers in this study were married, 63 (23.2%) were single while 4 (1.5%) were divorced. 208 (76.5%) of the mothers were Christians, 37 (13.6%) Muslim, 25 (9.2%) practice traditional religion while 2 (0.7%) practiced other religion. 73 (26.8%) of the mothers are self-employed, this was closely followed by the civil servants with 71 (26.1%) mothers, farmers had the least number of mothers with 4 (1.5%). Majority 79 (29.0%) of the mothers receive monthly income of between ₦10,000 – ₦30,000, while 73 (26.8%) of the mothers monthly income is between ₦5,000 – ₦10,000. Only 34 (12.5%) mothers receive monthly income of <₦5,000. Mothers that had only 2 children were majority 100 (36.8%), 137 (50.3%) of the mothers have 1 under five child each respectively.

Objective two: Nutritional status of the under- five children in Evbuotubu Community,

Table III shows the nutritional status of the children in Evotubu Community. This analysis shows that 36.1% (196) of the children in Evbotubu Community are underweight with 63.9% (348) children normal weight, 46.0% (250) of the children are stunted with 147 (54.0%) of normal height and 25.4% (138) of the children in Evbotubu Community are wasted and 406 (74.6%) of normal weight-for-height.

Gender differences in under-five nutritional status in Evbotubu community

Table IV shows the Gender differences in under-five nutritional status among under-five children in Evbotubu, Community. The table indicate that of 36.1% (196) underweight children, 20.6% (112) were boys with 15.4% (84) being girls under five years children. In addition, wasting affected 25.4% (138) of the children, of which 13.2% (72) and 12.1% (66) were boys and girls respectively. Moreover, out of 46.0% (250) who were stunted under five children, 24.3% (132) were boys while 21.7% (118) were girls.

Age (months) difference of under-five nutritional status in Evbotubu community

Table V shows the age (months) difference of under-five nutritional status in Evbotubu. The table showed that 9.2% (50), 11.4% (62) and 15.4% (84) underweight under five children were within 0 – 20, 21 – 40 and 41 – 60 months age categories, respectively. Moreover, of 46.0% stunted children, 17.3% (94), 16.9% (92) and 11.8% (64) fell within 0 – 20, 21 – 40 and 41 – 60 months age

Table I. Demographic characteristics of child.

Variable	N=544	
	Frequency	Percent(%)
Sex		
Male	284	52.2
Female	260	47.8
Total	544	100
Age of children (months)		
0 – 20 months	202	37.1
21 – 40 months	206	37.9
41 – 60 months	136	25.0
Mean age 28.90 ± 0.96 months		
Total	544	100
Weight of children (kg)		
4 – 10.0	140	25.7
10.1 – 14.0	188	34.6
14.1 – 18.0	122	22.4
18.1 – 22.0	52	9.6
22.1 & above	42	7.7
Mean weight 14.06 ± 5.12 kg		
Total	544	100
Height of children (cm)		
55 – 65	44	8.0
66 – 75	66	12.0
76 – 85	150	27.5
86 – 95	150	27.5
96 – 105	102	19.0
105.1 & above	32	6.0
Mean height 86.05 ± 13.46 cm		
Total	544	100

categories, respectively. Also, wasting followed similar pattern as the underweight data with 12.1% (66), 7.4% (40) and 5.9% (32) of under five children from 0 – 20, 21 – 40 and 41 – 60 months age brackets, respectively

Objective three: Relationship between nutritional status of the under-five children and socio-demographic characteristics of their mothers

Predictors of nutritional status of child/children

Table VI is a multinomial logical regression analysis which shows that the mother's level of education was a significant predictor for weight-for-age with a p value of 0.042 (AOR: 2.300, 95% CI: 1.032 – 5.127), and mother's age for be a strong predictor for child wasting with p-value of 0.012 (AOR: 3.462, 95% CI: 1.313 – 9.131). All other demographic characteristics were found not to be a predictor of weight-for-age, height-for-age and wasting respectively.

DISCUSSIONS

The study shows that majority 284 (52.2%) of the children are males, while 260 (47.8%) are females. 206(37.9%),

with a mean age of 28.90 ± 0.96 months and a mean weight of 14.06 ± 5.12 kg. Also, it shows that majority 139 (51.1%) of the mothers are in the age group 26 – 35 years with a mean age of 28.21 ± 0.35 yrs. Mothers with Secondary education were more with 112 (41.2%) while no formal education had the least mothers with 14 (5.1%). 73 (26.8%) of the mothers are self-employed, this was closely followed by the civil servants with 71 (26.1%) mothers, farmers had the least number of mothers with 4 (1.5%). 79 (29.0%) of the mothers receive monthly income of between ₦10,000 – ₦30,000, while 73 (26.8%) of the mothers monthly income is between ₦5,000 – ₦10,000. Only 34 (12.5%) mothers receive monthly income of less than ₦5, 000.

The study revealed that 196(36.1%) of the children in were underweight with 250(46.0%) of been stunted and 138(25.4%) wasted. Furthermore the study indicate that of 36.1% underweight children, 112(20.6%) were boys and 84(15.4%) being girls. In addition, of the 25.4% wasted 72 (13.2%) boys and 66(12.1%) were girls. Moreover, out of 46.0% who were stunted, 132(24.3%) were boys while 118(21.7%) were girls. 84(15.4%) of the underweight were within 41 – 60 months, age categories, respectively. 94(17.3%) of the stunted were within 0 – 20months, similarly 66 (12.1%) wasted children were within

Table II. Socio-demographic characteristic of mothers.

Variable	N=272	
	Frequency	Percent
Mothers' Age		
17 - 25yrs	110	40.4
26 - 35yrs	139	51.1
36 & above	23	8.5
Mean age 28.21± 0.35 years		
Mothers' Level of Education		
No formal education	14	5.1
Primary Education	24	8.8
Secondary Education	112	41.2
Vocational Training	65	23.9
Tertiary Education	57	21.0
Marital Status of Mothers		
Single	63	23.2
Married	172	63.2
Divorced	4	1.5
Widowed	8	2.9
Cohabiting	25	9.2
Religion		
Christian	208	76.5
Muslim	37	13.6
Traditional	25	9.2
Others	2	0.7
Mothers' Occupation		
Unemployed	37	13.6
Apprentice	35	12.9
Trader	52	19.1
Farmer	4	1.5
Self-employed	73	26.8
Civil servant	71	26.1
Mothers Income		
< ₦5000	34	12.5
₦5000 - ₦10000	73	26.8
₦10000 - ₦30000	79	29.0
₦30000 - ₦50000	46	16.9
> ₦100000	40	14.7
Number of Children		
1	53	19.5
2	100	36.8
3	84	30.9
4	17	6.3
5	12	4.4
6	6	2.2
Number of Under five		
1	137	50.3
2	114	41.9
3	13	4.8
5	6	2.2
6	2	0.7

0 – 20, months. Badake, et al (2010) in Kenya who reported that up to 39% of the children were stunted; 7.1% were wasted; and 18.1% underweight and that the prevalence of stunting and wasting was significantly higher in boys than in girls ($\chi^2=6.765$, $P=.034$) and ($\chi^2=$

13.053, $P=.036$), respectively. The findings above were better than the result of this present study however it is similar in terms of ratio of boys to girls who are wasted and stunted. Collaborating the findings of this index study is Mu'awiyah, Bashir, Umar (2015) in Zaria, North-western

Table III. Nutritional status of child/children.

Variable	N=272	
	Frequency	Percent
Weight-for-Age		
Underweight	196	36.1
Normal weight	348	63.9
Height-for-Age		
Stunted	250	46.0
Normal	294	54.0
Wasting		
Wasted	138	25.4
Normal	406	74.6

Table IV. Gender differences in under-five malnutrition in Evbotubu.

Malnutrition Status	Male		Female		Total	
	F	%	F	%	F	%
Weight-for-Age						
Underweight	112	20.6	84	15.4	196	36.1
Normal weight	180	29.4	188	34.6	384	63.9
Height-for-Age						
Stunted	132	24.3	118	21.7	250	46.0
Normal	142	26.1	152	27.9	294	54.0
Weight-for-Height						
Wasted	72	13.2	66	12.1	138	25.4
Normal	202	37.1	204	37.5	406	74.6

Table V. Age (months) difference of under-five malnutrition in Evbotubu.

Malnutrition Status	0 - 20 months		21 - 40 months		41 - 60 months		Total	
	F	%	F	%	F	%	F	%
Weight-for-Age								
Underweight	50	9.2	62	11.4	84	15.4	196	36.1
Normal weight	136	25.0	166	30.5	104	19.1	294	63.9
Height-for-Age								
Stunted	94	17.3	92	16.9	64	11.8	250	46.0
Normal	108	19.9	114	21.0	72	13.2	294	54.0
Weight-for-Height								
Wasted	66	12.1	40	7.4	32	5.9	138	25.4
Normal	136	25.0	166	30.5	104	19.1	406	74.6

Nigeria, who revealed that out of the 300 children studied, 87 (29%) were found to have underweight, 21 (7%) were wasted, and 93 (31%) were stunted. Also the findings of Lahiru, Devika, Dharmaratne and Galgamuwa (2014) in Sri-Lanka, who reported that of 547 children aged participated in the study were up to 35.6%, 26.9% and 32.9% of children were under weight, stunting and wasting respectively agrees with the findings of the present study. This implies that the nutritional status of under-five children is still not encouraging and there is need for proactive action in order to reduce the mortality

and morbidity arising from these poor nutritional status. It is pertinent to note that despite the educational level of the mothers in the present study, there is still poor nutritional status of their children, though one can say in general that the percentage of the children with good nutritional status is higher compared to those that were wasted stunted and underweight, there is still need for improvement.

Findings also revealed that the mother's level of education was a significant predictor for weight-for-age ($p = 0.042$; AOR: 2.300, 95% CI: 1.032 – 5.127), and

Table VI. Predictors of nutritional status of child/children.

Variables	Weight-for-age				Height-for-age				Wasting			
	p	Adjusted OR	95% CI for Adjusted OR		P	Adjusted OR	95% CI for Adjusted OR		P	Adjusted OR	95% CI for Adjusted OR	
			Lower	Upper			Lower	Upper			Lower	Upper
Mothers' Age	0.111	2.035	0.850	4.873	0.175	0.535	0.216	1.321	0.012*	3.462	1.313	9.131
Mothers' Level of Education	0.042*	2.300	1.032	5.127	0.225	0.717	0.419	1.228	0.672	1.159	0.585	2.299
Marital Status of Mothers	0.158	0.862	0.701	1.060	0.815	0.965	0.716	1.301	0.145	1.596	0.852	2.989
Mothers' Occupation	0.086	0.641	0.386	1.066	0.556	1.352	0.496	3.683	0.481	0.755	0.346	1.647
Religion	0.491	0.837	0.506	1.386	0.220	0.617	0.285	1.335	0.881	0.952	0.500	1.814
Mothers Income	0.112	0.637	0.365	1.112	0.631	0.829	0.386	1.781	0.154	0.650	0.359	1.175

*significant $p < 0.05$

mother's age for be a strong predictor for child wasting ($p=0.012$; AOR: 3.462, 95% CI: 1.313 – 9.131), however all other demographic characteristics were found not to be a predictor of weight-for-age, height-for-age and wasting respectively. Similar findings was reported by Akorede and Abiola (2013), Ondo State, Nigeria, were household income was positively correlated with nutritional status of the infants (Stunting) ($r = 0.18$; $p < 0.05$), also level of mothers education was positively correlated with nutritional status of the children (stunting) ($r = 0.23$; $p < 0.05$). Sufiyan, et al (2012), in Zaria, Nigeria, also reported a significant statistical association between maternal literacy status and occurrence of malnutrition (specifically stunting) among the children studied. ($X^2 = 26.2$, $df = 1$, $P < 0.05$). Similar findings were also reported by Akorede and Abiola (2013) in Akure, were the level of mothers education was positively correlated with nutritional status of the children (stunting) ($r = 0.23$; $p < 0.05$). However, Adenike, et al (2006) in Ile-ife differs from the findings of this study, as they reported that mother age was negatively correlated, while occupation had a positively correlation with under-five. These differences might largely due to geographical location of the respondents, never the less education of the girl child should be made compulsory in the country since these are the potential mothers of tomorrow, and the levels of education and exposure have a long way to go with their knowledge on nutritional practices of their children. Being educated will stimulate them to search for good nutritional practices for their children without being taught, it will also help them read so that they will be able to read and understand some of the nutritional message that are in print. Maternal and child health center should be made accessible to our communities to help in educating

mothers and prevent malnutrition among under five children.

CONCLUSION

The nutritional status of children influences their health status, which is a key determinant of human development. The study has shown that the nutritional status of the under-five children is very poor compare to the standard growth rate required of them. These have been associated to the mother factor because for these children to be well nourished and of good nutritional status it depends largely on the mother or the care giver especially during the first five years of the child of life.

RECOMMENDATIONS

- The mother is the principal provider of the primary care that the child needs during the first five years of life, therefore education of these mothers will play an important role in the health of the under-five children, because the type of care they will provides depends to a large extent on their knowledge and understanding of some aspects of basic nutrition and health care which can be improve or enhance by quality education.
- Maternal and child health center should be made accessible to our communities to help in educating mothers and prevent malnutrition among under five children.
- Information on good nutritional practices should be provided by health worker at the all level of health care especially at the primary health center to enhance the nutritional knowledge of the mothers visiting these centres.

- Government should provide at least one square meal which is fortified with adequate nutrient for all under-five children, this should be residents at each primary health centre where these mother can visit on daily basis to get the children fed.

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