Effect of Single and Dual Parenthood on Children's Nutritional Status in Nigeria

[1]M.L Aliyu, [2]S.T Aliyu, [3]S. Onyewu

[1,2]Department of Nutrition and Dietetics, Kaduna Polytechnic, Kaduna, Nigeria
[3] Department of Food Technology, Kaduna Polytechnic, Kaduna, Nigeria

Abstract: This study was carried out to evaluate the relationship between single parenting and child nutrition in comparison to dual parenting. The analysis was carried out on a population of 1000 children between the ages 5 and 10 which the anthropometric method was used on the children while demographic characteristics was examined. The comparison was made between 500 children of single parents and 500 children of dual parents. The results obtained showed that there were differences in nutritional status between children reared by single parents in urban and rural settings. Children of lower parental educational level in the urban areas were less fed than their counterparts in the rural settings. Whereas children of dual parents in the urban areas were of better nutritional status than those in the rural areas. Summarily, children reared by dual parents had relatively adequate diet regardless of their residential location.

Keywords: Child Nutrition, Dual Parenthood, Single Parenthood, Nigeria.

I.   INTRODUCTION

Mental, physical and physiological well-being of an individual, from conception to adulthood depends on how well the individual is adequately fed. Diseases in Africa have a historical trace, from childhood to adulthood. Poor and inadequate diet (quantity and quality in both macronutrients and micronutrients) can make children vulnerable to specific conditions and infections that can lead to sensory, physical and intellectual disabilities. For example, studies have shown that from 250,000 – 500,000 children are considered to be at risk of becoming blind each year, and half dying within 12 months of losing sight, due to vitamin A deficiency according to World Health Organization [1]. It can also cause growth retardation and reduces the body's resistance to infections and diseases. All of these can be prevented using Vitamin A supplementation. Anaemia also affecting more than half of pre-school age children in developing countries is regarded as one of the most prevalent causes of disability in the world. Therefore, it is considered as a serious public health problem globally [2].

The state of the world children, stated that, 870 million people, worldwide are undernourished, which is reduced compared to the figure of 925 million in 2010 and 1 billion in 2011 respectively [3]. According to the report, more still needs to be done in order to achieve the Millennium Development Goals (MDG). 1,2,3,4,5 and 7 which are; reduction of poverty and extreme hunger, to achieve universal primary education, promote gender equality and empower women, reduced child mortality, improve maternal health and to ensure environmental sustainability (access to safe drinking water and basic sanitation) respectively. In Africa, hunger and poverty are added burden and children are faced with starvation and malnutrition, especially, in the Sahel belt of Africa where food insecurity is affecting an estimated 20 million people including an alarming number of malnourished children in Northern Nigeria. Researchers have shown that, most families are living below poverty line with less than 1 dollar per day [3]. In Nigeria, communities are ripped apart, unable to provide a secured environment for children due to several sectarian clashes; religious, tribal, kidnapping, and terrorism especially in Northern Nigeria.

A child is any human being from age 0-18 years according to Convention on the Right of the Children [4]. The goal of a society is to prepare very well its children for the future, good health, nutrition and a solid education are the building blocks for such preparation, which is the desire of every parents, but millions of children worldwide are affected by armed conflicts, leading to physical harm, violence, danger, abandonment, exploitation, displacement of which studies have

shown that 33.3 million people are internally displaced worldwide, out of which are 3.3 million internally displaced Nigerians [5]. In Nigeria, like other part of the world, single parenting is basically increasing. Data is not readily available on single parenthood in Nigeria, however, data are available on some Africa counties, like Ghana, Tanzania, South Africa and also on counties of other regions of the world-like the U.S.A that has a rate above 80 percent [6]. This means that, the right of children to live or survive, develop and participate must be all inclusive, that is, not excluding children from single parented home. Hence, this study was aimed at determining the effect of single and dual parenthood on the nutritional status of Nigerian children.

II. METHODOLOGY

A. Study Area:

The study was conducted in Kaduna State located in the North Western Geopolitical Zone of Nigeria which lies on 10^o20 N Latitude and 7^o45 E Longitude. It has interstate boundaries with Seven States including FCT Abuja, which is the Capital City of Nigeria. Kaduna State is called Liberal State due to its heterogeneous cultural background. It has the population of 6,113,503 according to the National Population Commission Census figures of 2006. Fifty – Seven languages are spoken in the state, but Gbagi and Hausa are the major ones besides other languages from all parts of Nigeria [7]. There are six major cities namely: Kaduna (Capital City), Zaria, Kagoro, Kafanchan, Kachia and Zonkwa. The state comprises of 23 Local Government Councils and the studies were carried out mainly in five Local Government Areas: Chikun Kaduna North, Kaduna South, Kajuru and Zaria. The two urban centers are Kaduna which are the powerful commercial, industrial and financial nerve centre and Zaria which all together has a third of the state total population above 1,512,000 forms the major part of the study due to migrants from all the Six Geo-Political zones of Nigeria.

B. Focus Group Discussion:

This is used to demo-graph the quantitative data, single parents of children between 5 to 10 years were selected from local schools within the rural communities and grouped into two (educated and non-educated). Questions were interpreted into languages of parents and recorded in English. It also includes personal observation and inter-personnel discussions with colleagues.

C. Study Population and Sample Size:

The target population includes all children between the ages of 5 to 10 years in Kaduna state. Data on total number of children is not readily available. A sample size of 1,000 children was used, 500 from single parenthood and another 500 from dual parenthood. The sample size was obtained using the formula of W.H.O [1].

$$n = \frac{Z^2 P(1-P)}{C^2} = 200$$

D. Sampling Technique:

Snow ball sampling technique was used to draw out parents and 1,000 children of both single and dual parents at places of work, within neighborhood, places of worship, market, institutions (schools and hospitals) in rural and urban locations in five Local Government Areas of the state namely: Chikun, Kaduna North, Kaduna South, Kajuru and Zaria.

E. Instruments for Data Collection:

The study used structured questionnaire as the instrument for collecting data on demographic variables of children through their parents. Salter spring balance with a scale measuring up to a maximum of 25 kg with increments of 100 g was used to measure the weight of five years old children and for children age 6-10, a bathroom scale was used. The child is made to stand and (the apparatus usually reads to a maximum of 100 kg with increment of 100g). The readings are taken to the nearest 100 g. To measure the height, the subject stands erect and bare footed on a stadiometer with movable head piece. The head piece is leveled with skull vault and the height is recorded to the nearest 0.5 cm. Age, weight, and height are three measurements combined to form three indicators of nutritional status. These are compared with the reference data (standard) of the same age and sex group obtained from an international reference population which are collected by the United States National Centre for Health Statistics.

F. Statistical Analysis:

The data collected during the field work were entered into statistical package for social science (SPSS) version 16.0 Chi-Square (χ^2) test of relationship was used as method of data analysis. The analysis carried out at 5 percent level of significance.

III.   RESULTS AND DISCUSSION

The results obtained indicated that 63.6 percent of children from single parent household are stunted compared to 69 percent of stunted children from dual household living in urban location out of which 33.0 percent are severely stunted as shown in Table 1. Single parents in the rural area are of better nutritional status than their counterpart in the urban setting, probably due to extended family support, particularly among the Hausas in the Northern part of Nigeria. Under nutrition was significantly more prevalent in boys than girls. Research has shown that malnutrition among boys in Africa is increasing compared to girls [8]. 9.8 percent children from single parenthood are severely stunted from 36.4 percent total of stunted children. Children from 5 years and above are considered as school age children, and are most likely to be separated from the family in order to concentrate on the younger children but this is the most active phase of their life therefore requires attention of parents to provide them with adequate nutrition. Research have shown that educational level, socio-economic status and food security access to safe water, health care services are reported to have great impact on the nutritional status [9]. Table 2 and 4 indicated that educational level was found to be a strong determinant of child nutritional status. National Health and Demographic Survey (NDHS) data, revealed that, mother's education has strong impact on a child nutritional status [10]. 38.6 percent of single mothers have no formal education 72.8 percent children are stunted with 3.18 percent are severely stunted. 20 percent are wasted out of which 9 percent are severely wasted children.

TABLE 1: PERCENTAGE OF MALNOURISHED CHILDREN BETWEEN THE AGE OF 5 – 10 FROM DUAL PARENTS HOUSEHOLD:

Background Characteristics		Stunted		Wasted	
Child's age	No of Children	Severe	Moderately	Severe	Moderately
5	200	10.0	18.0	3.6	8.4
6	100	9.6	7.0	0.2	3.0
7	50	4.0	3.0	-	2.0
8	50	1.6	3.6	0.4	4.0
9	50	4.2	2.0	-	2.2
10	50	3.6	4.0	1.0	1.4
	500	33.0 $P = 0.012$ $\chi^2 = 9.13$	36.0 NS	5.2 NS	21.0 $P = 0.034$ $\chi^2 = 7.11$

The results obtained indicated that, there is no significant relationship between the socio-economic variables of both households. 72.8 percent of children of dual parents are stunted with 31.8 percent severely stunted compared with single parent of 76.4percent stunted children with 23.6 percent wasted of which 11.2 are severely wasted due to food insecurity. 14 percent of dual parents have an income below ₦2,000, 26.4 percents have monthly income of ₦2,000 - ₦5,000, 25.2 percent have monthly income of ₦5,000 - ₦7,000 with highest percentage (34.4) having monthly income of above ₦7,000. Table 2 and 4 measured the demographic characteristic of children through parents. The result shows high percentage (51.2) of women in single parent household have monthly income below ₦2,000, 25 percent earn ₦2,000 - ₦5,000, 11 percent with income of ₦5,000 - ₦7,000 and 4.8 percent have income above ₦7,000. Household food security plays an important role in influencing nutritional status children [11].

TABLE 2: NUTRITIONAL STATUS OF CHILDREN BY DUAL PARENT DEMOGRAPHIC CHARACTERISTICS

Household Characteristics		Stunted		Wasted	
Mother's sign	No. of Children	Severe	Moderately	Severe	Moderately
12 – 19	60	3.2	6.4	0.4	2.0
20 – 24	65	4.2	5.6	1.2	2.0
25 – 29	140	5.0	19.0	1.0	3.0
30 – 34	90	5.0	9.6	1.0	3.4
35 – 39	85	4.0	11.6	0.8	1.4
40 - 44	60	2.8	6.0	0.8	2.4
	500	24.2 $P= 0.009$ $\chi^2 = 9.13$	58.2 $P = 0.002$ $\chi^2 = 12.73$	5.2 $P = 0.004$ $\chi^2 = 26.6$	14.2 NS

Food Security					
Enough	310	9.0	47.0	1.6	4.4
No enough	190	4.6	27.8	1.8	3.8
	500	13.6	74.8	3.4	8.2
		NS	P= 0.013	P = 0.027	NS
			$\chi^2 = 11.74$	$\chi^2 = 10.60$	
Educ. Level					
Primary	148	3.0	24.2	-	2.4
Secondary	150	2.0	25.6	0.4	2.0
Tertiary	132	-	25.0	-	1.4
No Formal Educ.	70	4.0	7.6	1.6	0.8
	500	9.0	82.4	2.0	6.6
		P= 0.000	P = 0.000	P = 0.009	P = 0.005
		$\chi^2 = 10.13$	$\chi^2 = 23.70$	$\chi^2 = 14.2$	$\chi^2 = 11.4$
Monthly Income					
$\leq$N=2,000	70	4.0	7.0	1.0	2.0
=N=2,001=N=5,000	132	4.6	19.0	0.6	2.2
=N=5,001=N7,000	126	1.0	22.4	-	1.8
$\geq$N=7,001	172	2.4	31.6	-	0.4
	500	12.0	80.0	1.6	6.4
		NS	P = 0.000	NS	P = 0.008
			$\chi^2 = 23.70$		$\chi^2 = 16.2$

In single parent household, the result shows that 45 percent have food security while 55 percent have insufficient food security while is also indicted in the nutritional status of the children, as 76.4 percent are stunted with 34.8 percent severely stunted, while 23.6 percent are wasted out of which 11.2 are severely wasted. Although, Food Security and Nutrition Security are not necessarily the same thing, a household is food secured if it can reliably gain access to food of a sufficient quality and quantities that allow all its members to have healthy and active lifestyle, but food secure households may still have deficient or inadequate diet. Nutrition security is only achieved when secure access to food is coupled with a sanitary environment, adequate health service, the knowledge and care needed to ensure good health of all individuals in the house hold.

TABLE 3: PERCENTAGE OF MALNOURISHED CHILDREN BETWEEN THE AGE OF 5 – 10 FROM SINGLE PARENTS HOUSEHOLD:

Background Characteristics		Stunted		Wasted	
Child's age	No of Children	Severe	Moderately	Severe	Moderately
5	200	13.6	6.4	5.0	15.0
6	100	10.0	5.0	2.0	3.0
7	50	6.0	1.6	0.8	1.6
8	50	5.0	2.6	0.4	2.0
9	50	5.4	1.0	0.6	3.0
10	50	5.0	2.0	1.0	2.0
	500	45.0	18.6	9.8	26.6
		P = 0.000	P = 0.006	P = 0.000	P = 0.034
		$\chi^2 = 14.01$	$\chi^2 = 9.67$	$\chi^2 = 20.31$	$\chi^2 = 9.13$

TABLE 4: NUTRITIONAL STATUS OF CHILDREN BY SINGLE PARENT DEMOGRAPHIC CHARACTERISTICS

Household Characteristics		Stunted		Wasted	
Mother's Age	No. of Children	Severe	Moderately	Severe	Moderately
12 – 19	50	4.0	3.6	0.8	1.6
20 – 24	98	7.0	5.0	2.4	5.2
25 – 29	120	9.0	10.2	1.6	3.2
30 – 34	85	6.0	8.6	0.4	1.6
35 – 39	78	5.6	4.2	1.8	4.0
40 – 44	69	4.0	3.2	2.2	4.4

	500	35.6 P= 0.000 $\chi^2 = 22.13$	34.8 P = 0.000 $\chi^2 = 8.73$	9.2 NS	20.0 P = 0.000 $\chi^2 = 14.6$
Food Security Enough No enough	225 275	15.2 19.6	16.6 25.0	4.8 6.4	8.4 4.0
	500	34.8 P = 0.000 $\chi^2 = 13.8$	41.6 P = 0.004 $\chi^2 = 12.3$	11.2 P = 0.001 $\chi^2 = 15.0$	12.4 P = 0.000 $\chi^2 = 9.6$
Educ. Level Primary Secondary Tertiary No Formal Educ.	150 72 85 193	9.4 5.8 4.0 12.6	11.8 5.4 9.8 14.0	3.0 1.0 - 5.0	5.8 2.2 2.0 7.0
	500	31.8 P= 0.005 $\chi^2 = 11.3$	41.0 P = 0.000 $\chi^2 = 14.7$	9.0 P = 0.002 $\chi^2 = 9.5$	17.0 P = 0.000 $\chi^2 = 18.2$
Monthly Income <=N=2,000 =N=2,001=N=5,000 =N=5,001=N7,000 >=N=7,001	256 125 55 64	22.0 10.0 4.0 5.0	21.0 17.0 5.0 7.0	2.2 1.2 0.4 0.4	6.0 1.8 1.6 1.4
	500	41.0 P = 0.007 $\chi^2 = 9.8$	50.0 P = 0.000 $\chi^2 = 13.6$	4.2 NS	10.8 P = 0.001 $\chi^2 = 16.4$

IV. CONCLUSION

 This research was centered on single parenthood and child nutritional status in Nigeria. The findings revealed that 63.6 percent of children from single parenthood are stunted out of which 36.4 percent are severely stunted furthermore 36.6 percent are wasted (weight-for-height), of which 9.8 percent are severely wasted. Malnutrition has been found to be the underlying cause of more than 60% childhood mortalities of which women and children in rural areas are the most vulnerable group due to limited access to adequate nutrition, health care, low socio-economic status, low educational level and other basic social service. Studies revealed that a micronutrient deficiency is also one of the major contributing factors to high rate of disability, morbidity especially among infants, children and women. Based on the findings of this study, it is concluded that socio-economic status of the women is very poor as majority of parents of both households have an average income below N2,000 and Single parents are mostly women, poor and un-educated.

REFERENCES

[1] WHO (1995) Expert Committee on Physical Status: Physical Status: The Use and Interpretation of Anthropometry, Report of a WHO Expert Committee. Geneva, World Health Organization WHO Technical Report Series, No. 854 http://whqlibdoc.who.int/trs/WHO_TRS_854.pdf_webcite accessed 20 May 2011.

[2] UNICEF, (2013), The State of the World's Children 2013: Children with Disabilities.

[3] FGN/UNICEF (2001) Children's and Women's Right in Nigeria: A Wake-up Call, Situation Assessment and Analysis 2001 National Planning Commission Abuja and UNICEF Lagos.

[4] Standing Committee on Nutrition (2004) Fifth Report on the World Nutrition Situation. Nutrition for Improved Development Outcomes. United Nations System.

[5] Katapa, R.S. 2006. "A Comparison of Female and Male-Headed Households in Tanzania and Poverty Implications. "Journal of Biosocial Science 38(03):327-339.

[6] Bordi, P.L., J.E., Watkins, S., Caldwell, D. and Devitis, C.A. (2002), Impact of the Environment on Food Choices and Eating Habit of School Age Children.

[7] Addo A.A (2005), Assessment of Nutritional Status of Urban Pre-school Children in Northern Nigeria J. Nutr. Sc. 5(2):81-86

[8] Ahamdu Bello University Consultancy Service (1990) Food Security and Nutrition Report in Nigeria. The International Bank for Reconstruction and Development International Development Association.

[9] Brown S.L. and L.N. Rinelli, 2010. "Family Structure, Family Processes and Adolescent Smoking and Drinking. "Journal of Research on Adolescence

[10] Akinmokun O.O. (1989), The Impact of Nutrition and Intelligent Performance of School Age Children in Ibadan Ph.D. Thesis. Department of Human Nutrition University of Ibadan, Ibadan.

[11] Amato, P.R. (2005), "The Impact of Family Formation Change on the Cognitive, Social and Emotional Well-Being of the Next Generation." Nig. Fd. J., 26(1): 189-195