Assessment of Nutritional Status of Almajirai Children in Zamfara State, Nigeria

Abstract

The paper examined the nutritional status of almajirai children in Zamfara State, Nigeria. Almajirai (singular -almajiri) are children who have left their parents from rural areas in Nigeria or migrated from neighboring African countries to big cities in Northern Nigeria to undergo training in Islamic knowledge. As a result of poverty, these children do not receive any support from their families or government. In other to survive, they move from house to house or popular motor parks in major cities in Nigeria begging for food to eat. It is in the light of the above that the paper examines the nutritional status of almajirai children in Zamfara State, Nigeria. The sample size of the study consisted of 385 almajiri children. Anthropometric measurements were be used as the instruments of data collection. Data collected was analyzed using SPSS. The findings of the study indicated that there was no significant difference in the weight of Almajirai children across all the age categories. The hypothesis of the study showed that there was a significant difference between the almajiri children suffering from stunted growth, underweight and wastage in Zamfara State. The mean difference suggests that the malnutrition was more severe in Kaura Namoda than any other local government given that it has the highest mean difference of 1. 3618. The paper concludes that an average almajiri child in Zamfara State is malnourished. The recommends that almajiri children should be included into the Federal Government school feeding programme so that they can have access to good nutritional food and formal education for a better future.

Keywords: Almajiri, Children, Nutrition, Poverty, Underweight

Introduction

The importance of nutrition in the development of children cannot be over-emphasized. Nutrition helps children grow well and develop to their full capacity. Good nutrition is essential for physical and cognitive development of children. The type of food children eat is instrumental to their health status during development and in the latter years of their lives (Myles, 2013). It has also been emphasized that nutrition is one of the major factors that impairs the development of children (Chulack, 2016). According to Kimoon, nutrition has been described as a maker and marker of development. He also asserted that improved nutrition is the springboard for advances in health, education, employment, empowerment of women and the reduction of poverty and inequality, and can lay the foundation for peaceful, secure and stable societies.

UNDER PEER REVIEW

However, despite the critical role that nutrition plays in the lives of children, it been established that globally, 5.0 million children under the age of five die in 2021 due to malnutrition (United Nations Children Fund [UNICEF], 2023). In a similar manner, the World Health Organization ([WHO], 2021) stated that worldwide, it was estimated that 149 million children under the age of five were stunted (too short for their age), 45 million were wasted (too short for their height), and 38.9 million were overweight or obese in 2020. A minimum of 216 million children in Africa have malnourishment and stunting (African Development Bank, 2023). Malnutrition ranks second among the primary causes of death for children in sub-Saharan Africa, after malaria(African Development Bank, 2023)

The situation in Nigeria is more worrisome as the number of malnourished children increased due to violence and conflict especially in Northern where Boko-haram insurgency and banditry has caused monumental damage to the livelihood of the people. Malnutrition is a serious public health issue in Nigeria because of its negative effect on the health of children (Adeola e'tal, 2016). With a countrywide prevalence rate of 32% of children under five, Nigeria has the second-highest burden of stunted children in the world (Nigerian Health Watch, 2020). In North West Nigeria, Zamfara tops the chart of States with the greatest prevalence of 10.3% of malnutrition among children aged 6 to 59 months(Nigerian Health Watch, 2020).

The effect of malnutrition on children is very devastating as it continues to expose children to diseases and infirmities. It also affects the physical, mental and psychological well-being of children. According toNigerian Health Watch (2020), childhood infections turn into deadly diseases when there is severe wasting. Severely wasted children are more susceptible to these diseases because their bodies don't shield them from the bacteria, viruses, or fungus that causes their infections (Nigerian Health Watch, 2020). The inabilityof children to absorb nutrition through their digestive systems causes them to die.Children that are malnourished are unable to develop to their full physical and mental potential (WHO, 2023). Undernourishment in school-age individuals can lead to compromised cognitive and motor development, thereby disrupting academic achievement by lowering learning potential and decreasing attendance (Osei e't al, 2010, Best etal, 2010).

Early childhood malnutrition stunts a child's physical and mental growth, making it harder for them to succeed in school and find jobs later in life(World Bank, 2021). The impacts frequently

UNDER PEER REVIEW

begin prior to delivery, since an increasing proportion of pregnant women get maternal anaemia as a result of malnutrition (World Bank, 2021). The 2030 Sustainable Development Goals and human capital are fundamentally based on nutrition. In order to promote worldwide human growth and economic recovery from the catastrophic effects of the pandemic, under nutrition and obesity must be addressed. According to some research, low productivity caused by hunger costs developing countries' industries up to $850 billion annually (World Bank, 2021). If we are to fulfill the nutrition targets for 2030, it is predicted that expenditures in nutrition-specific programmes will cost $11 billion yearly (World Bank, 2021).

Inspite of the negative effect of malnutrition on children and the financial implication to address the problem, a segment of the Nigeria children whose malnutrition status has not been investigated is the almajirai children. The term almajirai (singular -almajiri) has its roots in the Arabic word "Mahaajirun" which means someone who has left his place of abode in pursuit of Islamic knowledge (Kabiru, 2010 & UNICEF, 2020). There are 10 million almajiri children in Nigeria (UNICEF, 2020). Almajiraiare children who have left their parents from rural areas in Nigeria or migrated from neighboring African countries to big cities in Northern Nigeria to undergo training in Islamic knowledge. As a result of poverty, these children do not receive any support from their families or government. They live as destitute and beggars not knowing where their next meal will come from.

This means that they do not have access to food, shelter, formal education, clothing or medical services. In other to survive, these children move from house to house or popular motor parks in major cities in Nigeria begging for food to eat. Many of the almajiri children die as a result of famine, disease, ritual killings, kidnapping, and street violence (Teke, etal, 2022). The question is, do the foodsalmajirai children beg from house to house to feed have any nutritional value in theirlives? This and other questions are what this research seeks to provide answers to.

Research Questions

The general research question of the study is what is the nutritional status of almajiri children in Zamfara State? The specific questions are:

i. What are the socio-demographic characteristics of almajirai children in Zamfara State?

UNDER PEER REVIEW

ii. What is the nutritional status of almajiri children in Zamfara State?

iii. What are the factors associated with nutritional status of almajiri children in Zamfara State?

Research Hypothesis

The following research hypothesis has been formulated to guide the study:

Ho: There is no statistical difference between almajiri children suffering from stunted growth, underweight and wastage in Zamfara State.

Materials and Methods

The study adopts survey research design. The design was chosen because it is useful in appraising the prevalence of a particular behaviour in a population. It is also useful when dealing with large samples at specific point in time. The population of this study involves only almajiri children living in Zamfara State. Since there is no accurate data on the population of almajiri children in the State, the population of the study was determined based on proportion (Rose, Spinks &Cantoho 2015).Therefore, the sample size of the study was determined using the following method: $n = \frac{4pq}{d^2} = \frac{4 \times 0.5 \times 0.5}{0.05^2} = \frac{1}{0.0025} = 400$

Therefore, 400 almajiri children will be selected for the study. Therefore, the population of the study will be 400 almajiri children in Zamfara state.

A multi-stage sampling technique comprising of cluster, simple random and snowball sampling techniques will be used to selected respondents for the study. Cluster sampling technique will be used to divide Zamfara State into 14 local government areas. These local government areas are Anka, Bakura, Birnin -Magaji, Bukkuyum, Bungudu, Gummi, Gusau, Kaura-Namoda, Maradun, Maru, Talata-Mafara, Shinkafi, Tsafe and Zurmi. Thereafter, simple random sampling technique will be used to randomly select 7 local governments out of the original 14. The 7 local governments selected are Maru, Tsafe, Maradun, Bungudu, Kaura-Namoda, Anka andTalata-Mafara. Lastly, snowball sampling technique was used to select 400 almajiri children from the 7 local government areas.

UNDER PEER REVIEW

Structured questionnaire and anthropometric measurements will be used as the instruments of data collection. The rational for the use of anthropometric measurements is because WHO approves the method as the most effective instrument for measuring nutritional status of children. The researcher personally collected the data with the assistance of 4 trained research assistants with the permission of Mallams (teachers) who are in charge of the almajiri schools in all the 7 local government areas selected. The data collection spanned from February, 2022 to March, 2023. Data analysis was carried out with the aid of Statistical Package for the Social Sciences version 21software (SPSS) and the results presented in tables and percentages for better understanding.

Result and Discussion

Table 1: Distribution of the Sampled Almajiri children by Anthropometric Characteristics

Age of Almajiri	N	Height (Cm) Mean	Height (Cm) Std. Deviation	Weight (kg) Mean	Weight (kg) Std. Deviation
6	18	10.994	3.8998	8.2878	5.6676
7	23	11.182	3.9384	12.903	7.1028
8	34	14.423	5.0151	14.444	7.8496
9	47	23.920	6.7760	11.429	3.5043
10	54	26.372	5.2934	13.103	5.8735
11	49	24.341	3.4328	12.921	2.7175
12	46	23.486	4.8583	10.294	5.0439
13	41	19.011	5.6265	11.729	4.6324
14	33	17.119	4.2041	10.842	6.1751
15	9	1.3920	3.7760	12.429	4.7342
16	6	1.2702	2.3843	14.651	3.4278
17	5	.9619	2.5376	15.923	4.4532
18 and above	20	13.920	4.7861	11.429	3.7184
Total	385	23.065	54.2047	13.065	36.2047

Source: Field Survey, 2023

Result in table 1 shows that the mean weight and height of Almajirai children in Zamfara State. The findings indicate that the mean height of Almajirai children between 9-13 years were higher than other age categories. The data for weight indicated that there was no significant difference in the weight of Almajirai children across all the age categories.

Table 2: Distribution of the Sampled Almajiri children by nutritional status in selected local governments in Zamfara

Sampled Local Government	Number examined	Under-nutrition	% Under-nutrition	Normal	% Normal	Total %
Maru	55	38	38 (69.1)	17	30.9	100
Tsafe	57	41	41(71.9)	16	28.1	100
Maradun	55	39	39(70.9)	16	29.1	100
Bungudu	55	33	33(60.0)	22	40	100
Kaura-Namoda	54	37	37(68.5)	17	31.5	100
Anka	53	34	34(64.2)	19	35.8	100
Talata-Mafara	56	36	36(64.3)	20	35.7	100
Total	385	228	228(59.2)	157	40.8	100

Source: Field Survey, 2023

Table 2 provides information about nutrition Almajiri children based on their local government area of residence. The result shows that almajiri children from all the local seven (7) government areas selected for study recorded high prevalence of under nutrition. From the result above, Tsafe local government area recorded the highest prevalence rate of 41% (71.9) followed by Maradun with 70.9% (39) and Maru Local government with 69.1% (38). In addition, Anka and TalataMafara LGAs had the prevalence rate of under nutrition of 64.2% (34) and 64.3% (36) respectively. Generally, the study showed that almajiri children suffered from under nutrition.

Table 3: Test of Hypothesis

	Test Value = 0					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Maru	36.748	384	.000	1.29870	1.2292	1.3682
Tsafe	39.754	384	.000	1.39481	1.3258	1.4638
Maradun	38.195	384	.000	1.34286	1.2737	1.4120
Bungudu	43.817	384	.000	1.15844	1.1065	1.2104

UNDER PEER

Kaura-Namoda	37.869	384	.000	1.43636	1.3618	1.5109
Anka	41.316	384	.000	1.30649	1.2443	1.3687
Talata-Mafara	38.482	384	.000	1.38427	1.3326	1.4735

Source: 2023 field survey

Based on result of the t-test from table 3 above, the null hypothesis is rejected. This means that there is significant difference between the almajiri children suffering from stunted growth, underweight and wastage in Zamfara State. The mean difference suggests that the suffering was more severe in Kaura Namoda than any other local government given that it has the highest mean difference of 1. 3618.

Conclusion

Based on the findings of the study, it evident that malnutrition was high among almajiri children in Nigeria. This is because those parents and guardians who send these children to cities tools acquire Quranic education do not provide food for them. Also, the schools themselves do not cater for the needs of the children. This makes the children move from house to house begging for food to eat. In the event where they do not get food, they go hungry. They wake the following day not knowing where their next meal will come from. The neglect of the almajiri children by parents and guardians is obviously the reason behind the high level of malnutrition among the children. The findings of this research align with several other studies that emphasized that malnutrition is not only hinders children cognitive growth but also may limit their ability to work in the future (Amuta,etal, 2019, Owolabi, etal, 2022).

Recommendations

The paper recommends that the almajiri schools should be integrated into the Federal Government school feeding programme to enable them have access to good nutritional foods and formal education. The rational for this is because research indicates that well-thought-out school feeding programmes can support children's meals that are adequate in both macro and micronutrients, improving their health and nutrition while lowering morbidity and boosting learning potential (World Food Program, 2019&Okolo-Obasi, 2022).

Ethical approval

Ethical approval was obtained from the Zamfara State Ministry of Health and Religious Affairs before the data for almajiri children were obtained for the manuscript.

UNDER PEER REVIEW

Reference

African Development Bank (2023) Child malnutrition: the African Development Bank steps up action to save thousands of African children at risk of dying before their fifth birthday. https://www.afdb.org/en/news-and-events/child-malnutrition-african-development-bank-steps-action-save-thousands-african-children-risk-dying-their-fifth-birthday-62273

Adeola, A, Ijadunola, M.Y , Alabi, O Onayade, A, Aluko, O (2016) Assessment of childhood nutritional status: Findings from a health and demographic surveillance system. International Journal of Clinical Nutrition, (4)1, 7-11. http://pubs.sciepub.com/ijcn/4/1/2/index.html

Amuta, E.U, Houmsou, R.S & Soumay, R, (2009) Assessment of nutritional status of school children in Makurdi, Benue State. Pakistani Journal of Nutrition. 8(5), 691-694,https://scialert.net/abstract/?doi=pjn.2009.691.694

Best, C, Neufingerl N, Van Geel, L. (2010) The nutritional status of school-aged children: why should we care? *Food NutrBull*, 31(3),400–417,https://pubmed.ncbi.nlm.nih.gov/20973461/

Chulack, A, (2016) The importance of nutrition in early childhood development. Novak Djokovic Foundation

John-Joy Owolade, A., Abdullateef R, O., Adesola R, O., Olaloye, E, D (2022) Malnutrition: An underlying health condition faced in Sub–Saharan Africa: Challenges and recommendations. Ann Med Surg (Lond). 2022 Sep 22;82:104769. doi: 10.1016/j.amsu.2022.104769. PMID: 36249309; PMCID: PMC9562605

Ki-moon, B (2016) A message for the SUN movement strategy and roadmap (2016-2020).

Kabiru, I. (2010) The North and Almajiri phenomenon. www.gamji.com/article8000/NEWS8282.htm

Myles S. F, (2013) Child nutrition. Encyclopedia of early child development

Nigerian Health Watch (2020) Nourishing the future: How UNICEF is providing nutrition care in Sokoto State. https://articles.nigeriahealthwatch.com/nourishing-the-future-how-unicef-is-providing-nutrition-care-in-sokoto-state/

Okolo-Obasi, E, N., Uduji, J. I., (2022) The impact of national home grown school feeding programme (NHGSFP) on rural communities in Nigeria, AGDI Working Paper, No. WP/22/018, African Governance and Development Institute (AGDI), Yaoundé.

Osei A, Houser, R., Bulusu S, (2010) Nutritional status of primary school children in Garhwali Himalayan villages of India. *Food Nutr Bull*; 31(2): 221–233, https://pubmed.ncbi.nlm.nih.gov/20707228/

Rose, S.,Spinks, N.,&Cantoho, A.I., (2015)Management Research: Applying the Principles.

Teke, A.M, Khalid, M &Katami, N. A, (2022) Problems and prospects of Almajiri integration programme in North West Geo-Political Zone, Nigeria. International Journal of Education and Literacy Studies. 10(1), 1-12,

The Economist (2014) Mixing the modern and the traditional. https://www.economist.com/middle-east-and-africa/2014/07/26/mixing-the-modern-and-the-traditional

United Nations Children Fund (2020)Children adjust to life outside Nigeria's Almajiri system https://www.unicef.org/nigeria/stories/children-adjust-life-outside-nigerias-almajiri-system

United Nations Children Fund (2022) Child alert: Severe wasting https://www.unicef.org/child-alert/severewasting?gclid=CjwKCAjwkY2qBhBDEiwAoQXK5eEqO1biMmxIQUozDNC4XY8wSEQ2H7VZmscIcSKPifSWxlpubzs40BoCG6QQAvD_BwE

United Nations Children Fund (2023) Under-five mortality. https://data.unicef.org/topic/child-survival/under-five-mortality

World Health Organization, 2021, Malnutrition. https://www.who.int/news-room/fact-sheets/detail/malnutrition#:~:text=Globally%20in%202020%2C%20149%20million,age%20are%20linked%20to%20undernutrition.

World Bank (2021)Mobilizing against child malnutrition.https://blogs.worldbank.org/voices/mobilizing-against-child-malnutrition

World Food Program (2019) The impact of school feeding programmes https://docs.wfp.org/api/documents/WFP-0000102338/download/

World Health Organization (2023) Malnutrition. https://www.who.int/health-topics/malnutrition#tab=tab_1

UNDER PEER REVIEW