

Assessment of Nutritional Deficiency and Its Effect on the Growth of the Less Privilege Children in Taraba State, Nigeria

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Abstract

This study “Assessment of nutritional deficiency and its effect on the growth of the less privilege children in Taraba State, Nigeria” is designed to investigate the effect which nutritional deficiency has on the less privileged children and whether nutritional deficiency have significant negative effect on the children. This is because there is a general notion that most retarded growth experienced in our children is occasioned by nutrient deficiency in feeds. It is believed that constant consumption of foods containing nutrients in the right proportion will make children grow normally and in good health. The study us a descriptive survey research design. Target population of the study was 864 participants. Sample of the study was 273 respondents. The sample size was obtained using Slovin’s model for sample size determination. Instrument for data collection was the researchers’ structured questionnaire. The instrument was structured using Likerts’ modified response option of Strongly Agreed (SA), Agreed (A), Disagree (D) and Strongly Disagree (SD). Data collected were analyzed using descriptive and inferential statistics. The null hypotheses formulated were tested using regression analysis and the associated ANOVA. Findings of the study indicated that most of the less privileged children are not opportune to feed on balanced diet, and that militates against their growth and development. The major recommendation was that charity organizations, philanthropist and government should consider the less privileged and provide assistance that could enable them meet up with the required nutritive foods for proper growth and development.

Keywords: *Assessment, Nutritional deficiency, effect, growth, less privileged children.*

1.0 Introduction

The most critical and fundamental factor that enhances or inhibits the growth and development of children is food intake. Food intake is considered the most critical factor because it is believed to be related to growth and healthy being of children. Food intake of children is required to have essential nutrients that could boost growth of the children. Foods that are deficient in nutrient causes stunted growth and wasting in children globally. The implication is that nutritional deficiency is a threat to the general well-being of children. The need to feed children with balanced diet remains. The need assumes that nutritional deficiency hinders growth and development, leading to issue like stunting, underweight and increased susceptibility of children to diseases, (Begun, 2008). Research reports demonstrated that nutritional deficiencies results in underweight, retarded growth, overweight and obese.

There are common nutritional deficiencies. Gadanya, Hamza and Abubakar (2021) enumerated some to include; iron, zinc. Calcium, vitamin A, vitamin B₁₂ and other micronutrients. The major cause of growth and health impairment of most children is nutritional deficiency. Adegun, Ajayi-Vicent and Alebiosu (2013) defined nutritional deficiency as a lack of essential nutrients like vitamins, minerals, proteins and calories leading to compromised health. Nutritional deficiency is a serious health problem of the less privileged children. This is because of the lack in basic food requirements. Henrietta et al (2020) elucidated that nutritional deficiency, aside from an impediment in growth and development, also it causes diseases such as; low birth, kwashiorkor, marasmus, obesity, goiter, xerophthalmia/keratomalacia, rickets, osteomalacia and pellagra. The assumption is that less privileged children are at risk of all these diseases. Foods that are less nutritious constitutes a setback in child growth leading to health complications. The importance of balanced foods cannot be over emphasized.

Adegun et al (2013) while presenting diet as the number one risk factor in the world, noted that taking foods that contain adequate nutrients contributes in the healthy being of children. The basic requirement is that children should constantly be provided with foods nutritious enough for proper growth and good health. The many issues that bedevil proper growth and development of the less privileged children is foods that lack adequate nutrients. Decrease in foods that contain adequate nutrients makes proper growth and good health of children a mirage, and the most vulnerable are the less privileged children. While explaining the negative effect of nutritional deficiency in children, World Health Organization (WHO) (2011) narrated that over 101 million children under the age of 5 were under weight (low weight for age) 165 million were stunted (low height for age) and approximately 52 million were wasted (low weight for height) consequently, estimate suggest that undernourishment constitutes a serious set back in the life of children. Nutritious foods helps to make children grow properly and healthy. Therefore parents are required to provide foods rich with nutrients for feeding their children. Supporting the postulation, Hunger Facts (2015) said that globally about 795 million children and individuals are undernourishment are the less privileged children and the needy. Besides, about 50% of all deaths are attributable to under nutrition. This indicate that the aftermath of nutritional deficiency is generally a serious disaster in the wellbeing of people. There is a progressive deterioration in the growth, development and health of children in Taraba State. Several factors contribute to this, paramount among which is insufficient nutrients in the food consumed by the children.

The most prominent nutritional disorder is chronic under nutrition. Under nutrition is the condition caused by taking insufficient food to fulfil the energy requirements of the body. Nutritional deficiency in the context of the less privileged children refers to the inability of the children to be fed with foods that contain adequate nutrients. Foods that lack adequate nutrients and vitamins decreases energy in the body and causes body discomfort. The need for nutritious food by mankind most especially the growing up children and youths has been emphasized over the years (Adegun, et al, 2013). Quality foods are required for effective growth of children. Appropriate growth and acquisition of energy becomes possible when the foods consumed possess adequate nutrients. Mitsuyoshi (2013) while quoting World Health Organization (WHO) (2011) noted that according to the estimation, almost 70 – 80 million children around the World suffer from subclinical vitamin A deficiency apparently with clinical symptoms in subclinical vitamin A deficiency. Children have higher infection susceptibility and reduced physical growth. It is therefore glaring and crystal clear that stunted growth, wasting and poor health condition of children is occasioned by nutritional deficiency. The basic requirement is that, in order to achieve appropriate growth of children and make them thrive in good health, they should be placed on constant nutritious foods.

Statement of the Problem

The undeniable fact is that nutritional deficiency is a heinous thing because it constitute a setback in the growth and wellbeing of children. In many notions of the world less privileged children are the victims of foods deficient in nutrients. In Taraba State, the case is not different. Less privileged children are severely undernourished and that led to some complications and the associated diseased conditions such as, Keratomalacia, rickets, marasmus, goiter, pellagra and kwashiorkor. The notion here is that nutritious foods not only assist children to grow but also provided good health. It is expected that parents should make efforts and feed their children appropriately. In the case of the less privileged children, this has not been possible. Stunted growth and wasting has become the order of the day. In view of the foregoing, the problem of the study therefore is, What is the effect of nutritional deficiency on the growth of the less privileged children in Taraba State, Nigeria?.

Purpose of the Study

The general purpose of the study is to determine relationship between nutritional deficiency and the effect on the growth of the less privileged children in Taraba State, Nigeria. Specifically, the study intends to:

1. Find out effect of nutritional deficiency on growth of the less privileged children.
2. Ascertain the growth and health status of the less privileged children in the school.
3. Determine the relationship between the foods consumed by the children and their health conditions.
4. Find out effort of charity organizations and philanthropist toward providing food for the less privileged children.

Research Questions

The following research questions guided the study:

1. What is the effect of nutritional deficiency on growth of the less privileged children?
2. How is the growth and health status of the less privileged children in the State?
3. What is the relationship between the foods consumed by the children and their health conditions?
4. What is the effort of charity organization and philanthropist toward providing food for the less privileged children?

Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

H₀₁: There is no significant relationship between nutritional deficiency and the growth of the less privileged children.

H₀₂: There is no significant relationship between nutritional deficiency and health of less privileged children.

Significance of the Study

Findings of the study could be beneficial to charity organizations, philanthropists, individuals and the general public. It could be gainful to charity organizations because it will make them aware of the ordeals of less privileged children. Individuals could gain from the results of the study because it will enlighten them on the rationale for the stunted growth and wasting of the less privileged children and the way forward in assisting them. The general public could benefit from findings of

the study because it will inform them on what the less privileged children are passing through and what is required to improve their way of life. Researchers could immensely gain from the results of the study because it will make them carry out research in the related area that could help improve the wellbeing of children generally.

Scope of the Study: The study is limited to less privileged children in Taraba State, Nigeria.

2.0 Review of Literature

The major cause of stunted growth and development in children is nutrients deficiency. The construct, nutrient deficiency refers to lack of required nutrients in food intake of children. The less privileged children for instance do not have the needed nutritious food that could boost their growth and development that causes retarded growth, consequent upon various infirmities. It is imperative to make nutritious foods available for children because that's highly critical for their growth, development and wellbeing.

Theoretical Framework

Triage theory of nutrition is mostly concern about food constituents sufficiently rich to enhance growth and development of children. The theory views nutritious foods as that which is critical in facilitating the growth, development and health of children. The theory suggests that nutritive foods or balanced diet raises the healthy being of children by preventing many infirmities. The theory posits that dietary deficiency in human causes stunted growth and wasting, and advised that foods consumed by children should be rich enough to provide energy and good health. The theory believed that there is no one best way of improving human health except through proper feeding. The theory criticized those who see proper or nutritive foods as a cost or waste of financial resources and undernourished children. The central idea and emphasis in the theory is balanced diet to promote growth and development of children. The theory takes positive view of nutritious foods and that the main obstacles to proper growth of children is nutritional deficiency. The emphasis of the theory is that children require nutritional foods to enhance growth of the children and that nutritional deficiency is a menace to wellbeing of children. The theory is relevant to this study because it has provided useful hints on effects of dietary deficiency in children and lays emphasis on the need to curb under nourishment, consequent upon stunted growth and wasting by feeding children with nutritive foods.

Empirical Studies

Amuta, Robert and Soumay (2009) conducted a descriptive survey research on assessment of nutritional status of school children in Makurdi, Benue State, Nigeria. Findings revealed that the average school child in Makurdi is undernourished. Poor nutrition of children do not only affects the cognitive development of children, but also likely to reduce the work capacity of the children in future. It was recommended that the food constituent of the students should contain more calories, proteins and micronutrients such as iron and vitamin for children in the slum, also more food that is of good nutritive value. School lunch should not be taken as main feeding of the children.

Banwat, Daboer, Ganto, Awunor and Emmanuel (2018) carried out a research study on factors influencing the nutritional status of the aged in an urban slum in Jos, Plateau State, Nigeria. Findings of the study showed that most of the respondents (80.4%) have poor nutritional knowledge and majority of them (64.5%) were not aware of any special nutritional needs of the

aged. About 60% of the studied elderly had normal BMI, while 25.9% were overweight. The aged female were more likely to be obese than their male counterparts ($P = 0.0032$). There was however no statistically significant relationship between nutritional status of respondents and their age group ($P = 0.3784$), graded nutritional knowledge (0.9968), and employment status ($P = 0.9883$), most of the elderly in the study area (Tudun Wada) had poor nutritional knowledge and practices and as many as a quarter of them were overweight/obese. The study recommended that health programmes aimed at improving the diet of the elderly must take a multi-pronged approach.

Henrietta, Yetunde, Salisu, Lilian and Oluwatisin (2020) carried out an update study on the nutrition situation in Nigeria. Findings showed that there is limited data to adequately assess the nutrition situation in Nigeria. Most of the nutritional indices are below global average. Nigeria has a stunting rate of 37%. Non-communicable diseases are emerging rapidly as a result of poor intake of foods and dietary components, poor nutrient and young child feeding practices. Having identified the limited nutrition data in Nigeria, the study recommended that government should show more commitment and invest more in nutrition with priority to the generation of nutrition data.

Gadanya, Hamza and Abubakar (2021) carried out a descriptive survey research assessment of nutritional status, knowledge attitude and practices of secondary school students in Kano State, Nigeria. Findings showed that majority of the participants (55.42%) were underweight, 43.06% normal, 0.79% overweight and 0.73% obese. Nutritional knowledge was found to be 62.77% good, 21.29% fair, and 15.84% poor. Nutritional attitude and practice were found to be 16.06% good, 50.36% fair, 33.58% poor and 1.46% good, 15.33% fair and 83.21% poor respectively. Correlation between knowledge and attitude, knowledge and practice as well as practice and attitude were 0.338 ($P = 0.001$), 0.058 ($P = 0.50$) and 0.235 ($P = 0.006$) and respectively. Therefore the study reveals poor nutritional status adequate knowledge and no significant correlation was found between knowledge and practice.

3.0 Research Methods

This study employed survey research design. Nworgu (2015) described survey research as one in which a group of people or items is studied by collecting and analyzing data from only a few people or items considered to be representative of the entire group. Target population of the study was 864. This comprised indigenes of the area. Sample of the study was 273 respondents. The sample was drawn using Slovin's technique for sample size determination. Instrument for data collection was the researcher's developed questionnaire. The instrument was prepared in two sections. Section "A" is on personal information about the respondents. Section "B" is questionnaire items arranged in clusters. The instrument was presented to three research experts for both face and content, validation. The experts were issued with the initial draft of the instrument for vetting and necessary corrections. They were requested to examine the instrument with respect to adequacy of the items and suitability of the language used. The corrections and inputs of the experts were effected in the final draft of the questionnaire in order for the researcher to further determine the reliability index of the instrument, a measure of internal consistency was employed. The instrument was trial-tested on 19 parents in Ukum Local Government Area, Benue State. The indices was calculated using cronbach alpha reliability coefficient. The coefficient value of 0.89 was obtained. This indicated that the instrument is reliable. Procedure for data collection was direct delivery of the questionnaire to the respondents by the researcher and three

research assistants who were briefed on how to establish rapport with the respondents while administering the questionnaire. Data generated from the respondents was analyzed using descriptive and inferential statistics. Specifically the research questions were answered using item by item percentage statistical analysis. The hypotheses formulated were tested at 0.05 level of significance using regression analysis and the associated ANOVA.

4.0 DATA PRESENTATION AND RESULTS

The data collected were presented and analyzed as follows:

Research Question 1: What is the effect of nutritional deficiency on growth of the less privileged children?

S/N	Item Statements	SA	A	D	SD	Remarks
1	Nutritional Deficiency makes the less privileged children grow better and healthier	42 (15.4%)	30 (11%)	80 (29.3%)	121 (44.3%)	SD
2	Nutritional Deficiency causes stunted growth and wasting in the less privileged children	156 (57.1%)	60 (22%)	34 (12.5%)	23 (8.4%)	SA
3	Nutritional Deficiency makes most of the less privileged children to have marasmus and keratomalaca	148 (54.2%)	75 (27.5%)	20 (7.3%)	30 (11%)	SA
4	It causes the less privileged children to become more lively and tall	26 (9.5%)	38 (13.9%)	70 (25.6%)	139 (51%)	SD
5	Nutritional Deficiency disrupts wellbeing of the less privileged children.	142 (52%)	80 (29.3%)	21 (7.7%)	30 (11%)	SA
6	It contributes in making the less privileged children unhappy in life.	140 (51.3%)	74 (27.1%)	29 (10.6%)	30 (11%)	SA

Source: Field Survey, 2025

It is conspicuous from the responses of respondents rated on the table above that nutritional deficiency is a major cause of decline in the growth of children generally. The greater percentage of Strongly Agreed recorded on the table above is in support of the proposition that nutritional deficiency has negative effect on growth of the less privileged children, and also that it causes rickets, marasmus and keratomalaca. The finding points to the fact that children require nutritive foods for proper growth and being healthy.

Research Question 2: What is the effect of nutritional deficiency on growth of the less privileged children?

S/N	Item Statements	SA	A	D	SD	Remarks
7	The growth and health status of the children is below expectation.	150 (54.9%)	90 (33%)	13 (33%)	20 (7.3%)	SA
8	The children has proper growth and are in perfect good health.	42 (15.4%)	30 (11%)	68 (21.2%)	143 (52.4%)	SD
9	Most of the children have stunted growth and lack the health status required.	158 (57.8%)	80 (29.3%)	22 (8.1%)	13 (4.1%)	SA
10	Most of the less privileged children are not in good health at all.	150 (55%)	80 (29.3%)	23 (8.4%)	20 (7.3%)	SA
11	Some of them have attain reasonable height and in good health.	140 (51.3%)	63 (23%)	36 (13.2%)	34 (12.5%)	SA
12	Most of them have distorted height and health status.	138 (50.5%)	75 (27.5%)	30 (11%)	30 (11%)	SA

Source: Field Survey, 2025

The responses of respondents recorded on the table above has indicated clearly that nutritional deficiency constitutes a stumbling block on the growth and health of children. The greater percentage of Strongly Agree as shown on the table is a justifiable evidence that lack of nutrients in foods consumed by children is a setback in their growth and healthy living.

Research Question 3: What is the relationship between the foods consumed by the children and their health condition?

S/N	Item Statements	SA	A	D	SD	Remarks
13	Foods that the children consumes causes them stunted growth and ill-health	162 (59.3%)	78 (28.6%)	10 (3.7%)	23 (8.4%)	SA
14	The foods gives them more energy and good health.	38 (13.9%)	29 (10.6%)	60 (22%)	146 (53.5%)	SD
15	Foods consume by the children that lack adequate nutrients aggravates their health conditions.	154 (56.4%)	66 (24.2%)	20 (7.3%)	33 (12.1%)	SA
16	Foods that the children consumes supplies the required energy and makes them perfectly sound.	40 (147%)	30 (11%)	63 (23%)	140 (51.3%)	SD
17	Foods that the children consumes accounts for their inability to be physically and psychologically sound.	130 (47.6%)	70 (25.6%)	43 (15.8%)	30 (11%)	SA

Source: Field Survey, 2025

There is a conspicuous evidence according to the responses of respondents recorded on the table above that positive relationship regarding foods consumes by the children and their health conditions does not exist because most of the children survives by eating trash. The greater percentage of Strongly Agree and Strongly Disagree are all proved that there is no significance

positive relationship between the food intake of under privileged children and their health conditions.

Research Question 4: What is the effort of charity organizations and philanthropist toward providing food for the less privileged children?

S/N	Item Statements	SA	A	D	SD	Remarks
18	Charity Organizations and the Philanthropist do support parents of the less privileged children.	70 (25.6%)	143 (52.4%)	50 (18.3%)	10 (3.7%)	A
19	Charity Organizations and Philanthropist are not concerned about the plight of the less privileged children.	68 (24.9%)	132 (48.4%)	40 (14.7%)	33 (12%)	A
20	Charity Organizations and Philanthropist leases with government to offer assistance to the less privileged children.	52 (19%)	40 (14.7%)	128 (46.9%)	53 (19.4%)	A
21	There is lack of support from any source to the less privileged children.	141 (51.6%)	69 (25.3%)	33 (12.1%)	30 (11%)	SA
22	Charity Organizations and Philanthropists have taken over responsibility of the less privileged children.	40 (14.7%)	30 (11%)	50 (18.3%)	153 (56%)	SD

Source: Field Survey, 2025

It is glaring and indeed apparent from the responses of respondents recorded on the table above that less privileged children are in dire circumstances. Rarely, there is any concern for them. The greater percentage of Agree recorded on the table above signified that the less privileged children has not been sufficiently offered the expected assistance to enable them thrive better.

Hypotheses Testing

Ho₁: There is no significant relationship between nutritional deficiency and the growth of the less privileged children.

Table 5. Analysis of variance of regression on relation between nutritional deficiency and growth of the less privileged children.

Model	Sum of Squares	DF	Mean Square F	Sig
Regression	517.321	7	73.903	1.567
Residual	216.417	322	.672	
Total	733.738	329		

Source: Field Survey, 2025, Using SPSS Version 27.

It is crystal clear from the F-Value of 1.567 which was significant at .004 that nutritional deficiency is significantly related to the growth of the less privileged children. Therefore, the null hypotheses of no significant linear relationship was rejected at $P < 0.05$.

Ho₂: There is no significant relationship between nutritional deficiency and health of less privileged children.

Table 6. Analysis of variance of regression on relation between nutritional deficiency and health of less privileged children.

Model	Sum of Squares	DF	Mean Square F	Sig
Regression	491.525	6	81.920	2.316
Residual	314.434	413	.761	
Total	805.959	419		

Source: Field Survey, 2025, Using SPSS Version 27.

The F-Value of 2.316 which was significant at .006 indicated that there is a significant relationship between nutritional deficiency and health of the less privileged children. Therefore, the null hypotheses of no significant relationship was rejected at $P < 0.05$.

Discussion of Findings

The findings of the study has clearly indicated that nutritional deficiency is highly detrimental to the entire wellbeing of children. The findings proved that nutritional deficiency causes stunted growth in children and aggravates their health conditions. The finding is in consonance with the proposition of Mitsuyoshi (2013) that nutrition is a major cause of rickets in children. The finding is also in agreement with Maziya, Akinyele, Sanusi, Oguntona, Tunde, Sagary and Harris (2006) who refuted that nutritional deficiency is a leading cause of stunted growth in children and eventual death from measles. Findings of the study is in conformity with Agam, Ekabua, Udoh, Ekanem, Efiok and Mgbekem (2010) who also listed some effect of dietary deficiency in children to include diseases such as Kwashiorkor, Maramus, Pellagra, Goitre and low birth. Findings of Mairiga and Saleh (2009) that nutritional deficiency particularly, iron causes anemia, while vitamin A deficiency impact significantly on growth and development of less privileged individuals. Results of the study agreed with Judith derives – ten, Adedotu, Jansteijn, Urszuka and Atida (2020) who opined that foods consumed by children should contain adequate calories, proteins, iron and vitamins to prevent occurrence of perpetual sicknesses. Findings of the study is in accordance with the recommendation of Adebayo and Balogun, (2018) who recommended that government should show more commitment by investing more in nutritious foods of children. The results of the study is inconsistent with Ogunkunle & Oludele (2013) that dietary deficiency is a major cause of stunted growth and several diseases in children.

5.0 Summary, Conclusion and Recommendations

It is established from findings of the study that the major cause of stunted growth and wasting in children is undernourished foods. The need to feed children with foods that contain adequate nutrients remains.

Recommendations

The following recommendations are imperative:

- * Foods given to children should contain adequate nutrients and in the right proportion.
- * Government should show commitment toward providing for the less privileged children
- * Individuals and charity organizations should empathize with less privileged children and make provision for them.
- * The philanthropists should recognize the need to offer assistance to the less privileged children to enhance their wellbeing.

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