



# THE CHILDHOOD NUTRITION: A PANACEA FOR RESTORATION OF SUSTAINABLE DEVELOPMENT IN AWKA SOUTH LOCAL GOVERNMENT AREA OF ANAMBRA STATE, NIGERIA

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## AUTHOR'S CONTRIBUTION

The sole author designed, analyzed, interpreted and prepared the manuscript.

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## ABSTRACT

This study was designed to investigate “The childhood nutrition: A panacea for restoration of sustainable development in Awka South Local Government Area of Anambra State”. Four research questions were formulated to guide the study. The population of this study comprised the entire mothers from the nine towns in Awka South L.G.A. To ensure a propitious result, a stratified sampling technique was used for selection of six towns and a simple random sampling technique was later used for selection of fifty mothers from each town. From this population, three hundred of them were selected for the study. This study was a descriptive survey design. A structured questionnaire which had the reliability of 0.85 after the pilot study was used as instrument for collection of data. Data collected were analysed using mean and standard deviation. The data presentation was done in order of research questions. The findings were that childhood nutrition promotes proper growth and development. It is very vital to their overall survival. The perturbing factors affecting childhood nutrition include food insecurity, malnutrition, Hiv/Aids status of the child, the financial status of the parents, and inadequate prenatal care among others. The nutritional well-being of all people is a pre-condition for the sustainable development of societies. To promote childhood nutrition, children should be given the prerogative to consume sufficient nutritious vitamins because, it allows them to grow, function, and remain healthy. Recommendations were made based on the findings that strategies should be put in place to encourage breastfeeding among nursing mothers because, it enhances childhood nutrition. Again, Government should reduce costs and increase the nutritional valued foods for children. Educational implications of the study as well as suggestions for further studies were also stipulated.

**Keywords:** Childhood; childhood nutrition; sustainability; development; sustainable development.

## 1. INTRODUCTION

Apparently, childhood is a unique period for effective development. It is the future foundation of every child. This is because it is a period that is accosted

with rapid growth and development in children. Hence, Bellamy [1] opined that “childhood is the foundation hopes for a better future”. Similarly, Maduwesi [2] elucidates that “it is a period for effective development of attitudes, feelings and

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values. This is part of the knowledge that actually leads to the emphasis and support of free play, individual and permissive attention, attention to aesthetics and provision of attractive surrounding in the pre-primary schools. At this period, children are known for certain characteristics that are peculiar to them because they are very active. They run, climb, and explore their environment through play. Considering these activities, Children are expected to feed well always.”

Moreover, humans, unlike plants, cannot manufacture the nutrients they need to function. They are strained to develop their own traditional diets. These diets prepared especially for children to develop and grow well are called childhood nutrition. Childhood nutrition connotes making sure that children eat healthy foods to help them grow and develop normally, as well as to prevent obesity and future diseases. Different food groups are selected to provide the vitamins and minerals young bodies need for natural growth and activity. “Every child should eat milk, vegetables, fruits, fats, and meats. Parents and other caregivers should ensure that their children get a well-balanced diet that supplies the vitamins and minerals” [3]. “Nutrition is important at every age. Nutrients are prerogative needs for every child to stay healthy and strong. Nutrition for children can also help establish an exquisite foundation for healthy eating habits and nutritional knowledge that a child can apply throughout life” [4]. Children should form a good healthy eating habit with diets daily. This will aid them to develop mentally and physically, and also prevent them from future problems with overeating. Other importance of nutrition on childhood development according to Chulack, [5] includes that “nutrition in a child’s early years is linked to their health and academic performance in later years. Also, adequate nutrition enhances child’s development in the womb.”

Childhood nutrition plays an unabated role in their development. Deficiencies in nutrients lead to malnutrition, which is an inadequacy of one or more of the nutrients essential for survival. Malnutrition in children results in a myriad of health issues which includes poor health, learning disabilities, low academic achievement, tiredness in one’s capacity to work, overweight, and high blood pressure. It can also lead to the following childhood problems: Behavioral disturbances, speech and hearing difficulties, faulty vision, and serious dental misalignment [3]. “Children who do not eat enough food to get enough nutrition suffer from severe undernourishment. Each year, more than six million children under the age of five years die around the world as a result of hunger. Worldwide, it is estimated that food insecurity

affects many households, mostly in developing countries” [6].

Furthermore, Glewwe et. al. [7] investigated “the nutrition–learning nexus using a unique longitudinal data set that follows a large sample of Filipino children from birth until the end of their primary education. Their findings demystified that better nourished children perform significantly better in school, partly because they enter school earlier and thus have more time to learn, but mostly because of greater learning productivity per year of schooling.” Similarly, O’Neil and Quirk [8] systematically reviewed “12 epidemiological studies to determine whether an association exists between diet quality and patterns and mental health in children and adolescents; 9 explored the relationship using diet as the exposure, and 3 used mental health as the exposure. They found evidence of a significant, cross-sectional relationship between unhealthy dietary patterns and poorer mental health in children and adolescents. They also observed a consistent trend for the relationship between good-quality diet and better mental health.”

## **2. THE CHALLENGES FACING CHILDHOOD NUTRITION**

According to United Nations Children's Fund [UNICEF] [9], there are several factors that deter childhood nutrition from being effective. Some of these factors include:

### **2.1 Poverty**

The financial status of the parents or the caregiver predicts whether the child will enjoy nutritious foods or not. For instance, when the parents are not financially buoyant to afford three good square meals, getting a nutritious food would be a very perturbing task.

### **2.2 Inadequate Maternal Nutrition**

Whenever women are oppressed, it results to malnutrition. Inadequate prenatal care and the disproportionate burden of physical labour borne by mothers are some of the greatest impediments to improving nutritional status.

### **2.3 Hiv/Aids Status of Children**

Children with Hiv/Aids have much chances of going hungry and this increases their risk of malnutrition. While there are chances that Hiv infected mother will transmit the virus during breastfeeding, the risks of not breastfeeding is greater.

## 2.4 Food Insecurity

Food insecurity denotes inadequate food. It brings about consumption of lower quality foods that contain less nutritional value. It causes malnutrition which occurs as a result of inability to afford quality food and personal choice to purchase foods of less nutritional value rather than those that contain essential nutrients [10]. Food insecurity also fosters obesity in children in that foods consumed contain a higher fat and sugar [11].

## 2.5 Malnutrition

Malnutrition is one of the greatest challenges facing childhood nutrition because, unhealthy diets are among the leading causes of death and disability. It impedes the body's normal functions, weakens the immune system, allows for disease to become more severe, and individuals to be less able to recover [10].

Nevertheless, when children are well fed at tender age, a productive adult is assured in the nearest future. As a result, a healthy and productive society is a precondition for sustainable development. Thus, "sustainability can be defined as the practice of maintaining world processes of productivity indefinitely natural or human-made by replacing resources used with resources of equal or greater value without degrading or endangering natural biotic systems" [12]. "It is that which can continue for a long time; capable of being maintained at a set level, keep up assumed role competently. Development means the process of changing and becoming larger, stronger, or more impressive, successful, or advanced, or of causing somebody or something to change in this way" (The American Heritage Dictionary, 2010). Hence, Bundtland [13] defined "sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. This definition acknowledges that while development may be necessary to meet human needs and improve the quality of life, it works in consensus with the capacity of the natural environment to meet present and future needs." The sustainable development focused on social justice and poverty alleviation. The concept of sustainable development tried to shape thought in global systemic perspective as well as secure a future. It attempts to reduce global warming and promote environmental resources. The world is not going to come to an end with this generation. Putting this into consideration, there is need to reserve certain resources. The concept of sustainable development emphasizes on not only economic development, but also on social development and the need to conserve the environment and natural resources.

In a nutshell, the state of hunger and malnutrition within a country is related to its level of development [14]. "The nutritional well-being of all people is a precondition for the sustainable development of societies and is a key objective of progress in human development. As a result of this, a well-nourished and healthy workforce is a pre-condition for sustainable development. Again, in order for a national social and economic development programme to be successful and sustainable, the majority of the population should be able to participate in the process" [15]. Therefore, the majority of the population should be in good health and have good nutritional status.

## 2.6 Theoretical Framework

The relevant theories that underpinned this study were discussed. They include: Cognitive theory and Social learning theory.

## 2.7 Cognitive Theory

This is the brain child of Jean Piaget [16]. "Cognitive theory is based around the premises that movements are driven by what infants are thinking. Though there are multiple approaches to cognitive theory; developmental, behavioural, and motor learning, all place cognition as the driver of the developmental change with varying perspectives on the contribution of the environment, behaviour, and motor repetition. Piaget observed infants in a context, and used movement to understand what children were thinking. He pioneered the idea of "stages" of development, linking infant overt behaviour to stages of cognitive constructs available to the infant. His focus was to understand how infants think by watching their interaction with objects in the world."

Piaget cognitive theory focused on understanding how infants think by watching their interaction with objects in the world. In the same vein, the way infants think about how beneficial nutrition will be to their health may help them a lot towards consuming more nutritious foods.

## 2.8 Social Learning Theory

Social learning theory was propounded by Albert Bandura [17]. "It emphasizes the importance of observing, modelling, and imitating the behaviours, attitudes, and emotional reactions of others. Social learning theory considers how both environmental and cognitive factors interact to influence human learning and behaviour."

The four mediational processes proposed by Bandura are attention, retention, reproduction and motivation.

Social learning theory emphasizes the importance of observing, modelling, and imitating the behaviours, attitudes, and emotional reactions of others. Perhaps, children will likely model their parents or caregivers if they always consume nutritious food. This will promote sustainable development.

## 2.9 Statement of the Problem

Nutritional status is a measure of the health condition of an individual as affected primarily by the intake of food and utilization of nutrients. According to the World Health Organization, health is not only the absence of disease but a state of complete mental and physical wellbeing in relation to the productivity and performance of an individual. Good nutritional status can only be realized and sustained when individuals within families and communities have food security. Adequate availability of food supplies to children promotes their nutritious state and health conditions. In contrary, inadequate nutrition leads to malnutrition in children, which is a pathological condition brought about by inadequacy of one or more of the nutrients essential for survival, growth, reproduction and capacity to learn and function in society. People whose diets fall short of standard levels of vital nutrients suffer from malnutrition that can be mild, moderate or severe, depending on the level of deficiency. Malnutrition is a serious condition that occurs when a person's diet doesn't contain the right amount of nutrients. It can be also called poor nutrition. Signs of inadequate nutrition includes: Unexplained fatigue, which is a common side effect of iron deficiency that can lead to anemia, indicated by low levels of red blood cells: Brittle and dry hair, ridged or spoon-shaped nails, mouth problems, diarrhea, irritability and lack of appetite.

Poor nutrition can also contribute to stress, tiredness on one's capacity to work, and the risk of developing some other health problems such as; being overweight or obese, tooth decay, and high blood pressure. Considering these negative implications of poor nutrition on the children, their performance is altered, thereby negatively affecting the sustainable development. There is no exact study carried out previously on this topic in Awka South local government area of Anambra. This triggered the researcher to embark on this study in order to bridge the existing gap.

## 2.10 Research Questions

- i. What are the relevance of childhood nutrition in Awka South Local Government Area of Anambra State?

- ii. What are the challenges facing childhood nutrition in Awka South Local Government Area of Anambra State?
- iii. To what extent does childhood nutrition enhance restoration of sustainable development in Awka South Local Government Area of Anambra State?
- iv. How do we improve childhood nutrition in Awka South Local Government Area of Anambra State?

## 3. METHODS

### 3.1 Design of the Study

The study is a descriptive survey. Descriptive studies investigate events in their natural setting without the researcher manipulating the independent or dependent variable. This design was chosen because the study elicited the views of the respondents on the impact of childhood nutrition in restoration of sustainable development.

### 3.2 Area of the Study

The study was conducted in Awka South Local Government Area (L.G.A) in Anambra State, Nigeria. The capital is located at Awka. According to population projection 2016, the population of Awka South was 250900 [18]. Awka South is made up of nine towns, namely, Amawbia, Awka, Ezinato, Isiagu, Mbaukwu, Nibo, Nise, Okpuno and Umuawulu.

### 3.3 Population of the Study

The target population of this study comprised the entire mothers from the nine towns in Awka South L.G.A. From this population, three hundred of them were selected for the study.

### 3.4 Sample and Sampling Techniques

The sample size of the study consists of three hundred mothers from the nine towns that made up Awka South Local Government Area. Stratified sampling technique was used for selection of six towns. This sampling technique was used because the entire nine towns have similar characteristics. Subsequently, a simple random sampling technique was used for selection of fifty mothers from each town.

### 3.5 Instrument for Data Collection

The instrument for data collection was a structured questionnaire constructed based on the three formulated research questions. The questionnaire has sections; A with the demographic data and section B

with data collection instrument. The respondents were told to respond to the items that captured the research questions by rating their view in a four point scale measures ranging from strongly agree (SA), agree (A), disagree (D) and strongly disagree (SD).

### 3.6 Validation of the Instrument

The instrument that was used in this study was vetted for face and content validity by an expert in research from the Department of Educational Psychology/Guidance and Counselling in Nwafor Orizu College of Education, Nsugbe. This was to ensure that the questionnaire captured the research topic. Certain corrections were made before it was approved for use.

### 3.7 Reliability of the Instrument

Twenty copies of the questionnaires were administered to twenty nursing mothers from Umueri in Anambra East Local Government Area of Anambra State, who were not part of the study sample. After two weeks, the questionnaires were re-administered to that same set of subjects. A test re-test reliability method was adopted, the result obtained stood at 0.85 reliability coefficient. This was adopted for the study.

### 3.8 Method of Data Collection

The researcher visited the six selected towns that participated in the study. In each town, a woman leader was employed to assist on administering the questionnaires. The researcher explained the purpose of the study to the mothers who in turns made the respondents to see the need to participant in the researcher. Fifty questionnaires were administered to the respondents from the six towns. Finally, all the three hundred (300) questionnaires administered were valid.

### 3.9 Method of Data Analysis

Data collected were analyzed using arithmetical mean ( $\bar{X}$ ) and standard deviation (SD). A bench-mark of 2.50 and above indicated agreement; while below indicated disagreement.

## 3. RESULTS

### 3.1 Research Question I

What are the Relevance of Childhood Nutrition in Awka South Local Government Area of Anambra State?

In the Table 1, items 1-5 with the responding mean and standard deviation of (3.33 & 0.807), (3.53 &

0.719), (3.28 & 0.824), (3.35 & 0.785), and (3.53 & 0.719) respectively were all accepted. This was because, they are up to and above the accepted mean level of 2.50 respectively. Therefore, the results showed that all the five items here are the relevance of childhood nutrition in Awka South Local Government Area of Anambra State.

### 3.2 Research Question 2

What are the Challenges Facing Childhood Nutrition in Awka South Local Government Area of Anambra State?

In the Table 2, items 6-10 with the responding mean and standard deviation of (3.44 & 0.758), (3.33 & 0.811), (3.29 & 0.821), (3.38 & 0.855), and (3.33 & 0.862) respectively were all accepted. This was because, they are up to and above the accepted mean level of 2.50 respectively. Therefore, the results showed that all the five items here are possible challenges facing childhood nutrition in Awka South Local Government Area of Anambra State.

### 3.3 Research Question 3

To what Extent does Childhood Nutrition enhance Restoration of Sustainable Development in Awka South Local Government Area of Anambra State?

In the Table 3, items 11-15 with the responding mean and standard deviation of (3.39 & 0.808), (3.48 & 0.786), (3.39 & 0.800), (3.43 & 0.770), and (3.49 & 0.786) respectively were all accepted. This was because, they are up to and above the accepted mean level of 2.50 respectively. Therefore, the results showed that all the five items here portrayed the extent at which childhood nutrition enhance restoration of sustainable development in Awka South Local Government Area of Anambra State.

### 3.4 Research Question 4

How do we improve childhood nutrition in Awka South Local Government Area of Anambra State?

In the Table 4, items 16-20 with the responding mean and standard deviation of (3.43 & 0.788), (3.51 & 0.719), (3.36 & 0.796), (3.31 & 0.871), and (3.51 & 0.719) respectively were all accepted. This was because, they are up to and above the accepted mean level of 2.50 respectively. Therefore, the results showed that all the five items here portrayed how to improve childhood nutrition in Awka South Local Government Area of Anambra State.

**Table 1. Mean and Standard Deviation Rating the Relevance of Childhood Nutrition in Awka South Local Government Area of Anambra State**

S/n	ITEMS	SA	A	D	SD	TOTAL	$\Sigma FX$	$\bar{X}$	STD	DECISION
1	Childhood nutrition promotes proper growth and development	151	11 3	22	14	300	1001	3.33	.807	Accepted
2	Childhood nutrition is very vital to their overall survival	188	96	4	12	300	1060	3.53	.719	Accepted
3	Nutrition in a child's early years is linked to their health and academic performance in later years	141	12 0	23	16	300	986	3.28	.824	Accepted
4	Adequate nutrition enhances child's development in the womb	153	11 1	25	11	300	1006	3.35	.785	Accepted
5	It promotes resistance to infections for the children mainly at their early stage of life	189	95	4	12	300	1061	3.53	.719	Accepted

**Table 2. Mean and Standard Deviation Rating the Challenges Facing Childhood Nutrition in Awka South Local Government Area of Anambra State**

S/n	ITEMS	SA	A	D	SD	TOTAL	$\Sigma FX$	$\bar{X}$	STD	DECISION
6	Food insecurity brings about consumption of lower quality foods that contain less nutritional value	172	101	16	11	300	1034	3.44	.758	Accepted
7	Malnutrition is one of the greatest challenges facing childhood nutrition	153	108	26	13	300	1001	3.33	.811	Accepted
8	Children with Hiv/Aids have much chances of going hungry and this increases their risk of malnutrition	142	118	25	15	300	987	3.29	.821	Accepted
9	The financial status of the parents or the caregiver predicts the childhood nutrition consumption	168	98	14	20	300	1014	3.38	.855	Accepted
10	Inadequate prenatal care is one of the greatest impediments to improving childhood nutritional status	158	102	21	19	300	999	3.33	.862	Accepted

**Table 3. Mean and Standard Deviation Rating the extent Childhood Nutrition enhance Restoration of Sustainable Development in Awka South Local Government Area of Anambra State**

S/n	ITEMS	VH	H	L	VL	TOTAL	ΣFX	$\bar{X}$	STD	DECISION
11	The nutritional well-being of all people is a pre-condition for the sustainable development of societies	166	100	20	14	300	1018	3.39	.808	Accepted
12	A well-nourished workforce promotes sustainable development	182	97	4	17	300	1044	3.48	.786	Accepted
13	In order for development to be successful and sustainable, the majority of the population should be in good health	166	100	21	13	300	1019	3.39	.800	Accepted
14	Nutrition plays a critical role in human resource development since deficiencies in essential nutrients lead to malnutrition	168	106	13	13	300	1029	3.43	.770	Accepted
15	When human potential and resources are trapped in the vicious cycle of malnutrition, sustainable development goals will not be realized	186	93	4	17	300	1048	3.49	.786	Accepted

**Table 4. Mean and Standard Deviation Rating how to improve childhood nutrition in Awka South Local Government Area of Anambra State**

S/n	Items	SA	A	D	SD	TOTAL	ΣFX	$\bar{X}$	STD	DECISION
16	Children should be given sufficient nutritious vitamins because, it allows them to grow, function, and remain healthy	173	97	17	13	300	1030	3.43	.788	Accepted
17	Government should control the marketing of foods and beverages targeted at children	181	103	4	12	300	1053	3.51	.719	Accepted
18	Strategies should be put in place to encourage breastfeeding practise among nursing mothers	155	115	15	15	300	1010	3.36	.796	Accepted
19	Introduction of food and nutrition security programmes will improve childhood nutrition	156	103	21	20	300	995	3.31	.871	Accepted
20	Government should encourage domestic trade food supply chains for nutrient-rich foods	181	103	4	12	300	1053	3.51	.719	Accepted

#### 4. DISCUSSION OF THE FINDINGS

The findings of this study were discussed according to the research questions and data analysis. The research question I examined the relevance of childhood nutrition in Awka South Local Government Area of Anambra State. The findings revealed that: Childhood nutrition promotes proper growth and development; Childhood nutrition is very vital to their overall survival; Nutrition in a child's early years is linked to their health and academic performance in later years; adequate nutrition enhances child's development in the womb; it promotes resistance to infections for the children mainly at their early stage of life. These findings are in agreement with Chulack (2016) who posited among others that adequate nutrition enhances child's development in the womb and encourages their later performance. It promotes proper physical growth and development at childhood.

The research question II examined the challenges facing childhood nutrition in Awka South Local Government Area of Anambra State. The findings revealed that: Food insecurity brings about consumption of lower quality foods that contain less nutritional value; malnutrition is one of the greatest challenges facing childhood nutrition; children with Hiv/Aids have much chances of going hungry and this increases their risk of malnutrition; the financial status of the parents or the caregiver predicts the childhood nutrition consumption; inadequate prenatal care is one of the greatest impediments to improving childhood nutritional status. These findings were supported by that of United Nations Children's Fund (2010) who demystified that several factors that deter child nutrition from being effective includes food insecurity; malnutrition, poverty, inadequate maternal nutrition and Hiv/Aid status of the child.

The research question III examined the extent childhood nutrition enhance restoration of sustainable development in Awka South Local Government Area of Anambra State. The findings revealed that: The nutritional well-being of all people is a pre-condition for the sustainable development of societies; a well-nourished workforce promotes sustainable development; in order for development to be successful and sustainable, the majority of the population should be in good health; nutrition plays a critical role in human resource development since deficiencies in essential nutrients lead to malnutrition; when human potential and resources are trapped in the vicious cycle of malnutrition, sustainable development goals will not be realized. These findings were in line with that of World Health Organization (2012) who ascertained that in order for a national social and economic development

programme to be successful and sustainable, the majority of the population should be able to participate in the process. Hence, nutrition should be at the centre of socio-economic development plans and strategies of all countries.

The research question IV examined how to improve childhood nutrition in Awka South Local Government Area of Anambra State. The findings revealed that: Children should be given sufficient nutritious vitamins because, it allows them to grow, function, and remain healthy; Government should control the marketing of foods and beverages targeted at children; strategies should be put in place to encourage breastfeeding practise among nursing mothers; introduction of food and nutrition security programmes will improve childhood nutrition; Government should encourage domestic trade food supply chains for nutrient-rich foods. These findings were in line with that of World Health Organization (2012) who posited that to improve childhood nutrition, strategies should be put in place to encourage breastfeeding practise among nursing mothers. Also, Government should control the marketing of foods and beverages targeted at children.

#### 5. CONCLUSION

- i. The study identified the relevance of childhood nutrition which includes promoting proper growth and development: Childhood nutrition is very vital to their overall survival: Nutrition in a child's early years is linked to their health and academic performance in later years.
- ii. The challenges facing childhood nutrition include: Food insecurity, Malnutrition, Hiv/Aids status of the child, the financial status of the parents, and inadequate prenatal care among others.
- iii. The extent at which childhood nutrition enhances restoration of sustainable development include among others that: The nutritional well-being of all people is a pre-condition for the sustainable development of societies to a higher extent: A well-nourished workforce promotes sustainable development to a higher extent: In order for development to be successful and sustainable, the majority of the population should be in good health.
- iv. How to improve childhood nutrition includes that: Children should be given sufficient nutritious vitamins because, it allows them to grow, function, and remain healthy: Government should control the marketing of foods and beverages targeted at children: Strategies should be put in place to encourage breastfeeding practise among nursing mothers.



## 6. RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made:

- i. Strategies should be put in place to encourage breastfeeding among nursing mothers because, it enhances childhood nutrition.
- ii. Government should reduce costs and increase the nutritional valued foods for children.
- iii. Nutrient-rich foods should be accessible to the children who are the vulnerable populations.
- iv. Government should encourage domestic trade of nutrient-rich foods, like vegetables.
- v. Children should be given nutritious foods to allow them to grow and remain healthy.

## COMPETING INTERESTS

Author has declared that no competing interests exist.

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