

EFFECT OF PARTICIPATION OF RURAL WOMEN IN UNICEF NUTRITION AND HEALTH PROGRAMME IN THE SOUTH-EAST STATES OF NIGERIA

Udensi, C.O & Odoemelam, L.E & Chibuikem-Onyebuchi, C

Agriculture, Umudike, Abia State

²National Root Crops Research Institute (NRCRI), Umudike, Abia State

Email: -chibuikemudensi@gmail.com,

+2347030224940, +2348034479348, +2348030847129

ABSTRACT

This study evaluated the level of participation of rural women in the UNICEF nutrition and health programme in the southeast states of Nigeria and ascertained the behavioral changes in them resulting from their participation in the programme activities. The specific objectives include: determining the women's participation level in the different programme activities and ascertaining the perceived behavioral changes in them resulting from their participation in the programme activities. Primary and secondary data were used for the study (responses were obtained from participants with a questionnaire and official records of UNICEF). Results indicate that over twenty-five thousand women in the Southeast States have participated and benefitted from the programme. The participants generally had a high level of participation (\bar{x} = 3.16) in the programme activities. They actively (\bar{x} = 3.30) participated in antenatal care (ANC), focused antenatal care (FANC) (\bar{x} = 3.19), postnatal care (PNC) (\bar{x} = 3.01), delivery by a skilled birth attendant (\bar{x} = 3.32), family planning (\bar{x} = 3.12), personal hygiene (\bar{x} = 3.46), nutrition and health talks (\bar{x} = 3.13) and vitamin A supplementation (\bar{x} = 3.69). The ANOVA result showed that there is a significant difference in change in behavior among the women participants of the UNICEF nutrition and health programme in the study area at a 5% alpha level. The paper raised a number of issues on nutrition and health and recommends the inclusion of more rural women to benefit from the programme packages and activities. This is based on the premise that increased food production and development start with a nutritional and healthy life.

Keywords: participation, nutrition, health, enhancement, behavioral changes, rural women.

INTRODUCTION

Nigeria among other nations of the world is currently going through a period of food insufficiency and this can be deduced from the high prevalence of indicators manifesting in the country which include: - low standard of living especially in the rural villages, poor health standard, malnutrition, low agricultural productivity, etc. Results of recent nutrition surveys in other parts of the world also indicate a precarious low standard of living in parts of Africa, and the world at large (OCHA,2008; FCPN,2008), Asia (HKI,2008), and the middle east (Valid/Joint, 2008).

The immediate causes of food insufficiency in the world today are: - drought, poverty, population growth, climatic change, rising food prices, civil wars and unrest, conflict, insecurity, and high maternal mortality rates amongst others (Food Security Analysis Unit for Somalia, (FSAU), 2008). Barret (2010) submitted that the most common cause of food insecurity is chronic regular poverty, not catastrophic events, such as earthquakes, floods, or war that disrupt food production and distribution at scale, although these events can result in episodes of severe food insecurity. However, UNICEF (2023) posited that food insecurity is caused among others by continued conflict, inflation, armed banditry, and kidnapping. Save the Children (2022) submitted that climate change, insurgency, conflict in many parts of the country, natural disasters, and pandemic-related shocks, all affect food production and have contributed to pushing up food prices.

Hunger is the world's number one health risk, greater than HIV and AIDS, tuberculosis, and malaria combined (World Food Programme, 2012). Hunger results in malnutrition, which is a state of insufficient, excessive, or imbalanced consumption of nutrients by an organism (World Health Organization, (WHO, 2013). Malnutrition which could be either under-nutrition or over-nutrition, is a condition of impaired development or function caused by either a long-term deficiency or an excess in energy and nutrient intake, the latter representing the state of over-nutrition. The paradox exists that, while undernutrition leads to a serious set of health problems, over-consumption of food and of certain dietary components is also risky. It is widely accepted that most often, undernutrition in developing countries is due to inadequate intake of protein, energy, and other food nutrients (Singh and Raghuvanshi, 2012). In Nigeria and most African states, undernutrition is prevalent. It is, therefore, not only a major hindrance to the farmer's health and those engaged in agro-businesses but a threat to food sufficiency in the nation. As malnutrition increases, other related variables such as total national food output, national food reserve, and net total food available from all sources decrease (Food and Agriculture Organization, 2002). This is based on the premise that at the most basic level, a person requires adequate nutrition in order to perform labour and function well in it. If the required nutrition is not forthcoming the result is a poor nutritional state or status and the person's ability to do sustained work is reduced (Croppenstedt and Muller, 2000).

Adequate nutrition is a basic human need. It is only when people can satisfy their nutritional requirements on a regular basis, and use and utilize adequate and safe food with the respective energy, protein, vitamin, and mineral content, would an active, healthy, decent, and productive life be fulfilled (WHO, 2013). However, when human potential and resources are trapped in the vicious

cycle of malnutrition, development goals and improved standards of living will not be realized (WHO, 2013). Prolonged lack of food and nutrients leads to various physical and mental impairments in human beings. It prevents children from growing into productive members of society and being adults who are fully able to participate in the economic and social developments of their society and countries at large thereby aiding the waste of the greatest national resource: the intellectual power of the people inducing low birth, where children fail to achieve their full potential growth, where micronutrient deficiencies permanently damage the brain, and where anemia and short-term hunger limit children's performance at school. Increasingly, in this world, it is intellectual resources, not natural or physical resources that determine national power (GNR, 2018).

The situation is bad as Haralambos and Heald (2006) explained. They submitted that the vicious cycle in which poverty breeds, occurs through time and transmits its effects from one generation to another. For example, those women who suffer poor nutrition are more likely to give birth to underweight babies, thus these babies start out life being nutritionally handicapped. Statistics from the 2012 state of food insecurity in the world show according to FAO estimate that 870 million people globally do not have enough food to eat (Food and Agriculture Organization, 2012). They maintained that 98% of the world's hungry people live in developing countries which Nigeria is among. UNICEF submitted that 25 million Nigerians are at high risk of food insecurity, and this demands urgent action according to Cadre Harmonise, a government-led and UN-supported food and nutrition analysis (UNICEF, 2023). It was also revealed that one in six children is expected to be underweight in developing countries and if nothing is done, it is expected that ongoing under-nutrition could leave more than 1 billion children with mental impairment by 2020 (Ruel and Garret, 2004). It thus behooves on government, via the aid of development-oriented and donor agencies to tackle the situation.

As a way of ameliorating the situation, saving the children and others have implemented humanitarian response programs around shock-responsive social protection and child poverty cash transfers, food vouchers to support the vulnerable and identified families, Nutrition, and health education to families to use the cash transfers well (Save the children, 2022). The women received special attention in the South-East States of Nigeria, especially those of reproductive age that are engaged in agricultural production, in the year 2019. The objective is for them (the women) to enjoy improved maternal health that will culminate in increasing their food and agricultural production amid childbearing activities (UNICEF, 2008).

Specific objectives of the study were to:

- 1 determine the participation level of the women in the programme activities;
- 2 ascertain the behavioral changes in the women resulting from their participation in the programme activities.

Hypothesis Testing

It was hypothesized that there is no significant difference in the level of change in behavior among the women participants of the UNICEF-Assisted nutrition and health programme in South-East, Nigeria.

METHODOLOGY

The study was conducted in South-East geo-political zone of Nigeria. The zone has five states namely; Abia, Anambra, Ebonyi, Enugu and Imo states. The south-east zone is located within longitude 5⁰ 25'E and 8⁰ 51'E and latitude 4⁰ 20'N and 7⁰ 25'N. It is bounded in the West by the River Niger, in the South by the Atlantic Ocean and in the North by Kogi and Benue states. The region is boarded in the east by Cross-River and Akwa-Ibom states. The zone occupies a land mass area of about 109.524 square kilometers (km²) representing 11.86% of the total land mass of Nigeria (Ekong, 2010). The south-east states are situated in the rainforest region of Nigeria.

The population of the study comprised all the women residing in rural communities in South–East geo-political zone of Nigeria, who participated in the programme activities in 2019. The programme activities of UNICEF–assisted nutrition and health are spread in the region.

Multi-stage sampling procedure was used for the study. In the first stage, 3 states (Abia, Ebonyi and Enugu), out of the 5 states were purposively selected based on the fact that they all had the programme activities carried out in them. In the second stage of selection, two senatorial zones each were randomly selected, from Abia (Abia Central and Abia North), Ebonyi (Ebonyi South and Ebonyi Central), and Enugu (Enugu East and Enugu West). In the third stage, two Local Government Areas were purposively selected from each senatorial zone of Abia Central (Umuahia North and Ikwuano), Abia North (Bende and Isiukwuato), while in Ebonyi South (Afikpo North and Afikpo South) were selected, in Ebonyi Central (Ezza North and Ezza South) were selected. Enugu East (Nkanu East and Nkanu West) were selected while Enugu West has (Awgu and Ani-nri) selected. In the fourth stage, two communities each were randomly selected and from each Local Government Area, and this gives twenty-four communities. In the fifth stage, a village each was randomly selected form the twenty-four communities. In each village, 12 participants were randomly selected bringing the total sample size to 288. Interviews and well-structured questionnaire were used to generate data in the study area. Data collected were analyzed using descriptive and inferential statistics.

To ascertain the level of participation of the participants, a 4-point Likert type rating scale of Always (A) =4, Often (O) =3, Seldom (S) =2 and Never (N) =1 was used. Thus, any mean score greater than or equal to the upper limit of 2.55 (2.5 + 0.05) benchmark implies active participation and below 2.55, was regarded as poor participation. While ascertaining the behavior changes, attributes with mean scores above 2.55 were regarded as positively changed and those below 2.55 were regarded as negatively changed.

Hypothesis testing

There is no significant difference in the level of change in behavior among the women participants of the UNICEF-Assisted nutrition and health programme in South-East (Abia, Ebonyi, and Enugu States). The implicit model is stated thus:-

$$F = \frac{MSS_B}{MSS_W} = \frac{\sum_{j=1}^k n_j (\bar{x}_{ij} - \bar{x}_j)^2}{k - 1} \bigg/ \frac{\sum_{j=1}^k \sum_{l=1}^{n_k} (x_{ij} - \bar{x}_j)^2}{N - K}$$

Where:

F = Test of significance of the difference in behavior among the women participants of the UNICEF Programme between the three states selected.

MMS_B = Sum of squared deviation between the level of change in behavior of women participants in the three states.

MSS_W = Sum of squared deviation within the level of change in behavior of women participants in the three states mean.

\bar{X}_j = Level of change in behavior of women participants in a state j (measured on a 4point rating scale of very regular=4, regular=3, seldom=2 and never=1)

X_{ij} = ith mean level of change in behavior of women participants in a state j

\bar{X} = Grand mean level of change in behavior of women participants in the three states

n_j = Sample size of women participants from state j

n = Number of women participants selected from the three states

k = Number of states under study

The formula explicitly specified:

$$F_{cal} = \frac{SB^2}{Sw^2}$$

Where:

F_{cal} = Calculated F-ratio

SB² = Between-groups variance estimate

Sw² = Within-groups variance estimate

Decision Rule: If F_{cal} > F_{tab} reject H₀ otherwise accept H₀.

RESULTS AND DISCUSSIONS

Results from Table 1 indicate the different programme activities that women participants of UNICEF-nutrition and health programme engaged in. The result showed generally active participation level (\bar{x} =3.16). The women actively participated in Vitamin A supplementation (\bar{x} = 3.69), Iron and foliate supplementation (\bar{x} =3.39) and Breastfeeding (\bar{x} = 3.18). Other activities that had the women participants actively participating in them include Breastfeeding in children more than 6 months (\bar{x} = 3.16), Complementary feeding (after six months of exclusive breastfeeding) (\bar{x} = 3.53), Home gardening (\bar{x} = 3.12) and Attendance to nutrition health talks and training sessions (\bar{x} = 3.13). The women also recorded active participation in Immunization against killer diseases (\bar{x} = 3.12), Long lasting insecticide treated bed nets usage (\bar{x} = 3.12), Deworming of children (\bar{x} = 3.36), Screening for malnutrition and treatment (\bar{x} = 3.09), Birth registration (\bar{x} = 3.09), HIV counseling and testing (\bar{x} = 3.49) and Antenatal care (ANC) (\bar{x} =3.30). Others are Focused antenatal care (FANC) (\bar{x} = 3.19), Post natal care (PNC) (\bar{x} =3.01), Treatment of diarrhea with ORS and zinc (\bar{x} = 3.20) and Personal hygiene (hand washing activities, bathing daily at least twice and washing of clothes once used) (\bar{x} = 3.46), Environmental sanitation (weeding the surroundings, proper disposal of farces, etc) (\bar{x} =3.11), and Family planning(\bar{x} = 3.12), delivery by skilled birth attendants (\bar{x} = 3.32) and Anti-malaria drugs usage (\bar{x} = 3.19).

Table 1: Level of participation of women in the activities of UNICEF- nutrition and health programme

Level of participation of women in UNICEF-nutrition and health programme activities	Abia (n =96)		Ebonyi (n =96)		Enugu (n =96)		S/E Pooled \bar{x}
	$\Sigma f(x)$	\bar{x}	$\Sigma f(x)$	\bar{x}	$\Sigma f(x)$	\bar{x}	
NUTRITIONAL ACTIVITIES							
Vitamin A supplementation	366	3.81	372	3.88	324	3.88	3.69
Iron and foliate supplementation	293	3.05	366	3.81	312	3.25	3.39
Breastfeeding	307	3.20	311	3.24	399	3.12	3.18
Exclusive breastfeeding in children 0-6 months	192	2.00	192	2.00	314	3.27	2.42
Breastfeeding in children more than 6 months.	288	3.00	299	3.11	324	3.38	3.16
Complementary feeding (after six months of exclusive breastfeeding)	327	3.41	331	3.45	359	3.74	3.53
Home gardening.	200	2.08	288	3.00	200	3.12	3.12
Attendance of nutrition health talks and training sessions	288	3.00	297	3.10	316	3.29	3.13
HEALTH ACTIVITIES							
Immunization against killer diseases	298	3.10	308	3.21	293	3.05	3.12
Long lasting insecticide treated bed nets usage	236	2.46	347	3.61	317	3.30	3.12
De-worming of children	317	3.30	326	3.40	324	3.38	3.36
Screening for malnutrition and treatment	236	2.49	337	3.51	314	3.27	3.09
Birth registration	309	3.22	288	3.00	292	3.05	3.09

HIV counseling and testing (HCT)	379	3.95	297	3.10	327	3.41	3.49
Antenatal care (ANC)	291	3.03	295	3.07	299	3.11	3.30
Focused antenatal care (FANC).	311	3.24	313	3.26	395	3.07	3.19
Post-natal care (PNC)	228	2.38	324	3.38	314	3.27	3.01
Treatment of diarrhea with ORS and zinc	308	3.21	312	3.25	300	3.13	3.20
Personal hygiene (hand washing activities, bathing daily at least twice and washing of clothes once used)	346	3.66	335	3.49	310	3.23	3.46
Environmental sanitation (weeding the environment, proper disposal of faeces, etc)	299	3.11	297	3.09	300	3.13	3.11
Delivery by skilled birth attendants	289	3.01	350	3.65	317	3.30	3.32
Family Planning	295	3.07	305	3.18	200	3.12	3.12
Anti-malaria drugs	308	3.21	312	3.25	300	3.13	3.19
Grand mean		3.04		3.19		3.24	3.16

Source:FieldSurvey, 2019

However, the women poorly participated in Exclusive breastfeeding in children 0-6 months (\bar{x} = 2.42). The poor participation of the women in exclusive breastfeeding implies a low participation level in the programme activity (Exclusive breastfeeding). The general active participation level (\bar{x} = 3.16) of the women implies a high level of participation in the programme activities. The implication of this is that these women maximized the opportunities presented by the programme activities to impact themselves positively and better their health status.

Behavioral Changes in the Women Participants that resulted from their Participation in UNICEF-nutrition and health programme

The result shows a general positive behavioral change in the women that participated in the programme activities (\bar{x} = 3.17). Intake of Iron and folic acid supplementation in pregnancy (\bar{x} = 3.28), Vitamin A supplementation in children 6-24 months (\bar{x} = 3.03) and Breastfeeding (\bar{x} = 3.34)

behaviors of the women were positively changed. The result also shows change in behavior in the women regarding exclusive breastfeeding ($\bar{x}=2.93$) and breastfeeding of children between 6-23 months along with appropriate food groups ($\bar{x}=3.13$) indicating that the women participants behaviors on these programme activities were positively changed. The behavior of the women regarding usage of iodized salt in cooking for their families ($\bar{x}=2.97$) changed along having small garden at the backyard, which also positively changed ($\bar{x}=2.98$). Behavior of the women towards boiling or treatment of family drinking water ($\bar{x}=3.00$), feeding their families with protein giving food, vegetables ($\bar{x}=3.10$) also positively changed. Women's behavior towards making dietary plans for the family ($\bar{x}=3.19$), Immunization against killer diseases in children 0-9 months ($\bar{x}=2.71$), De-worming of children six monthly ($\bar{x}=2.72$), Screening for malnutrition and treatment in children 0-59 months ($\bar{x}=3.12$), Screening of mother to child transfer of HIV at birth ($\bar{x}=3.09$) has also positively changed.

Table 2: Behavioral Changes in the Women Participants that resulted from their Participation in UNICEF-nutrition and health programme

Behavioral changes in the women participants	Abia	(n	Ebonyi	(n	Enugu	(n	S/E
	=96)	=96)	=96)	=96)	=96)	=96)	
	$\Sigma f(x)$	\bar{x}	$\Sigma f(x)$	\bar{x}	$\Sigma f(x)$	\bar{x}	Pooled \bar{x}
NUTRITIONAL ACTIVITIES							
Iron and folic acid intake in pregnancy.	354	3.69	286	2.98	305	3.18	3.28
Vitamin A supplementation in children (6-24 months).	282	2.94	256	2.67	333	3.47	3.03
Breastfeeding	375	3.91	298	3.11	383	3.99	3.34
Exclusive breastfeeding in children (0-6 months).	291	3.03	285	2.97	268	2.79	2.93
Breastfeeding in children more than 6 months.	347	3.62	343	3.57	254	2.65	3.28
Feeding my children (6-23 months) with appropriate food groups.	306	3.19	227	2.36	368	3.83	3.13
Usage of iodized salt in cooking for my household.	320	3.33	219	2.28	316	3.29	2.97
Having a small garden in my backyard.	308	3.21	276	2.88	281	2.93	2.98
Treatment or boiling of my family's drinking water.	232	2.42	336	3.51	296	3.08	3.00
Feeding my family with protein foods and Vegetables.	244	2.54	343	3.57	305	3.18	3.10
Making dietary plans for my family daily.	320	3.33	342	3.56	256	2.67	3.19
De-worming of children six monthly.	288	3.00	294	3.06	202	2.11	2.72
HEALTH ACTIVITIES							
Immunization against killer diseases of children (0-9 Months).	356	3.71	254	2.65	198	2.06	2.71
Screening for malnutrition and treatment in Children 0-59 months.	358	3.73	334	3.48	206	2.15	3.12
Birth registration of newborn babies.	173	1.80	185	1.93	297	3.09	2.27
HIV counseling and testing.	281	2.93	149	1.55	188	1.96	2.15

Screening of mother-to-child transfer of HIV at birth.	348	3.62	351	3.66	192	2.00	3.09
Antenatal care (ANC).	363	3.78	353	3.68	380	3.96	3.81
Personal hygiene and environmental cleanliness.	361	3.76	340	3.54	267	2.78	3.36
Diarrhea treatment in children with zinc and ORS.	182	1.90	235	2.45	308	3.21	2.52
Post-natal care in health facilities.	314	3.27	163	1.70	322	3.36	2.78
Having my girl children sent to school no matter what.	288	3.00	342	3.56	315	3.28	3.28
Washing of hands before meal preparation, especially for the children.	324	3.38	353	3.68	280	2.92	3.28
Sleeping under insecticide-treated bed nets every day with my children.	333	3.47	372	3.87	329	3.43	3.59
Visiting healthcare givers each time there was a change in your body as a pregnant woman.	373	3.89	279	2.91	240	2.50	3.10
Usage of anti-malaria drugs each time you have malaria?	374	3.90	268	2.79	218	2.72	3.14
Grand mean		3.54		3.01		2.95	3.17

Other behavior change attributes in the women are; Antenatal care (ANC) (\bar{x} =3.81), Personal hygiene and environmental cleanliness (\bar{x} =3.36), Treatment of diarrhoea in children in the family with zinc and oral rehydration solution (ORS) (\bar{x} =2.52) were all positively changed. The study further investigated more attributes of behavior changes occasioned by the women's participation in the programme and the result showed that many of the women participants' behaviors positively changed as regards Postnatal care (PNC) (\bar{x} =2.78), education of the girl child and washing of hands before preparation of meals especially for the children (\bar{x} =3.28), Sleeping under insecticide-treated bed nets behavior every day (\bar{x} =3.59) positively changed as visiting healthcare givers when there's a change in the body as a pregnant woman (\bar{x} =3.10) also changed positively. The women's behavior towards the usage of anti-malaria drugs, when they have malaria (=3.14), has also changed. The following had negative changes in the women - birth registrations of newborn babies (\bar{x} =2.27) and HIV counseling and testing (\bar{x} =2.15). The general positive behavioral changes (\bar{x} =3.17) in the women participants indicate a positive effect of the programme on them. The general positive change in behavior of the rural women participants explained partly the effect of the programme activities on the participants.

HYPOTHESIS

Table 3: There is no change in behavior among the women participants of the UNICEF-nutrition and health programme in the study area.

States	Mean level of change in behavior
Abia	3.5442 ^a
Ebonyi	3.0149 ^b
Enugu	2.9458 ^b
LSD	0.4109
F- Test	7.831**
Df	285

Table 3 shows that there was a significant difference in the level of change in behavior among the women participants. This was shown by the F-test value of 7.831 and therefore statistically significant at a 5% alpha level. The null hypothesis which stated that there is no significant difference in the level of change in behavior among the women participants of the UNICEF nutrition and health programme in South-East (Abia, Ebonyi, and Enugu) states was therefore rejected. Therefore, there is a significant change in behavior among women participants of the UNICEF nutrition and health programme in South-East, Nigeria.

CONCLUSION

Nutrition and Health are inextricable. UNICEF-nutrition and health programme aims at improving the health and nutritional status of women. There is no other way to it other than participation in the activities and programmes of such designs. Based on the findings of the study it was revealed the women had a high level of participation in the programme activities generally. However, they (the women) had a poor participation level in Exclusive breastfeeding activity compared to other programme activities.

The women had positive behavioral changes having participated in the programme in South-East Nigeria. For sustainable development to be achieved women's compulsory participation in this programme is advised especially those of reproductive age.

RECOMMENDATIONS

1. The interest of rural women to participate in important programmes that have a bearing on their health and wellbeing should be aroused and sustained.
2. UNICEF and government should work more to improve the components of the programme activities to bring more expositional knowledge and the need for exclusive breastfeeding to the rural women in the region.
3. Awareness creation on birth registrations of newborn babies and HIV counseling and testing need to be increased among women of childbearing age to bring about the desired changes in the behaviors of the women in those regards.
4. Participation of more rural women in the programme activities should be advocated for.

REFERENCES

- Croppensted, A. & Muller, C. (2000) "The Impact of Farmers' Health and Nutritional Status on their Productivity and Efficiency: Evidence from Ethiopia Development and Cultural Change". *Volume: 48. Number: 3. pp: 475-502.*
- Egeonu, N.E (2013) Effectiveness of Traditional Communication Pattern in the Transfer of UNICEF Promoted Health Messages in South-Eastern Nigeria. Unpublished Ph.D Dissertation, Department of Rural Sociology and Extension, Michael Okpara University of Agriculture, Umudike
- FCPN (Food Security information note. Niger Republic) 2008, June 2008 in: UN/SCN Report No. xvvi.
- Federal Republic of Nigeria, Official Gazette, (2009) No.2, 2nd February, vol. 96. Printed and published by Federal Government Printer, Abuja, Nigeria.
- Food security analysis unit for Somalia (FASU, 2008). In United Nations System/Standing Committee on Nutrition (UN/SCN), Nutrition information in crises situations, June 2008, Report No. xviii.
- Global Nutrition Report (GNR, 2018). Available at <https://globalnutritionreport.org>
- Haralambos, M and Heald, R.M (2006). *Sociology: Themes and perspectives*. Oxford University Press. New York.
- HKI (Helen Keller International), 2008. Report on assessment of malnutrition and micronutrient status of children, pregnant and lactating women living in the Rohingya refugee camps, Bangladesh, 2008. In UN/SCN Report No. xvii.
- International Conference on Nutrition (ICN, 1992). Improving Household Food Security-Theme paper No. 1 in: ICN: Major issues for nutrition strategies. FAO/WHO. Rome.
- National Population Commission (NPC, 2018). National Population Census Figures. NPC Abuja. Nigeria.
- OCHA (Humanitarian action in Chad), 2008 Facts and Figures snapshot report, 2008, In: UN/SCN, Report No. xvii.
- Ruel, M. T & Garrett, J. (2004) Features of urban food and nutrition Security and considerations for successful urban programming e-JADE.
- Save the Children (2022). June 2022. Tackling food insecurity in Nigeria. Online @savethechildren.org.uk
- Singh, P and Raghuvanshi R. S (2012). Finger Millet for Food and Nutritional Security. *Afr. J. Food Sci* 6 (4):77-84.

Smith. M.J. (1982) Persuasion and human action; A review and critique of Social influence theories. Belmont, C.A; Wadsworth.

UNICEF (2008). Universal Periodic Review- Human Rights Council UNICEF Input-Peru.

UNICEF (2023). 25 million Nigerians at high risk of food insecurity in 2023. [Online@https://www.unicef.org/25 million Nigerians at high risk of food insecurity in 2023](https://www.unicef.org/25-million-Nigerians-at-high-risk-of-food-insecurity-in-2023)

Valid/Joint (2008). Nutrition survey in Kharaz refugee camp and surrounding villages in Yemen, 2008. In: UN/SCN Report No. xvii.

World Health Organisation (WHO, 2013). Essential Nutrition Actions: Improving Maternal, Newborn, Infant and Young Child health and nutrition. Washington, DC: WHO.