



Internally Displaced Flood Persons and Health Insecurity in Ahoada West Local Government Area of Rivers State Nigeria 2012 – 2020

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Abstract: The work looked at health insecurity of internally displaced victims of flood in Ahoada West Local Government Area in Rivers State, Nigeria. Four research questions and objectives guided the study. The Social Inclusion Theory propounded in 1970 by René Lenoir was used. The study is a survey research. Both primary and secondary sources of data collection were utilized. A sample size of 100 was chosen. Respondents chosen for the study are family heads, women and youths. The collected data were analyzed through mean and standard deviation. The study discovered that internally displaced flood person's victim's experienced high blood pressure, infectious diseases, asthma and cold amongst others as a result of the flood. It is recommended that government and other humanitarian NGOs should assist in preventing and reducing the occurrence of yearly flood as this can be achieved through effective engineering control measure, flood forecasting, dredging of the Orashi River and establishment of deep drainage system.

Keywords: Flood Persons, Health Insecurity, high blood pressure.

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INTRODUCTION

Every year, millions of people are displaced from their homes and community globally by natural and human-induced disasters. Robert (2004) pointed that this has gradually become common challenge confronting international community. These vulnerable persons of concern nevertheless live within the borders of their own countries. Human displacement remains one of the most significant humanitarian challenges facing the world. Of the 33.3 million internally displaced persons in the world (exclusive of the development-induced displacement), 15 million internally displaced persons can be found in Africa, with an increase of 7.5% between 2013 and 2014 and Nigeria hosting over 3,300,000 IDPs (Osagioduwa & Oluwakorede, 2016).

According to Obeta (2014) in Igwe (2016), floods in Nigeria consist of 38% of declared national disaster by the Federal Government .between 1995 and 2005. Also, according to Etunobe (2011) in Ogbanga (2015), floods have posed tremendous danger to people's lives and property. Floods in various parts of Nigeria have forced millions of people out of their homes, destroyed businesses, polluted water resources and increased the risk of diseases and also affected and displaced more people than any other disaster. Ogbanga (2015) in Obuzor (2021) described the 2012 flooding in Nigeria to be the worst incidence so far in the history of the country. In this work, Obanga (2015) said over 28 out of the 36 states in the country were affected by the flood, which left thousands dead, properties worth billions of naira destroyed, 18,000 injured and over 2.1 million people were completely homeless thus were registered as internally

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displaced within their communities. In these communities there were massive disruptions of millions of people's source of livelihood with massive food insecurity causing millions who were displaced confront massive dislocations on their return home after the flood period. Likewise, cultural, educational, social and related activities were all grounded to a halt in most areas affected by the floods.

In a recent development, Ofiebor (2020) focused on the functions of the Rivers State Waste Management Agency (RIWAMA) which included the prevention of flood in urban areas and not allowing any structures on build water channels; avoid dumping of refuse in the drains and clearing of drainages to accommodate volumes of water after each rainfall. This contributes to flood occurrence amongst others in Rivers State.

However, considering Anadulu (2020) in describing the 2020 Nigerian flood which led to devastating impact that killed 68 people and affected 25 states including the FCT (Federal Capital Territory), 320 LGA's (Local Government Areas) and over 120,000 people leading to the loss of lives, destroyed houses and washed away farmlands across the country, thereby having a negative impact on food security. Though report by Nigeria Red Cross proved that over 150 deaths, 250,000 displaced, 192,594 people impacted across 22 states in Nigeria and 24,134 people were reported to have been displaced (floodlist.com, 2020). In all these cases as reported, the health of the people is equally threatened and can have negative impact on the over-all development of the people. Thus, this backdrop prompted the study on internally displaced victims of flood vis-à-vis their health and security challenges in Ahoada West LGA of Rivers State, Nigeria.

Statement of the Problem

Of late, the issues of internally displaced persons occasioned by flood have become phenomenal. This is more as experts have established a negative link between it and the health of people including displaced persons that are displaced as a result of flood. Of interest, according to Chawdhury, Hasan, Hasan and Younos (2020), is the increasing observed change in climate which has induced unusual heavy rainfall hence flood and displacement of person in some flooded area. According to Ohi (2000) apart from short term morbidity, in most cases, the impact on people's health can result to death and respiratory problems among other health issues.

United Nation Office for the Coordination of Humanitarian Affairs (2021) in a study of flood

situation in West and Central Africa revealed that the 2021 heavy rainfall killed 248 persons, injured 2,787, and displaced 37600 houses and farm crops among others. By this, people's livelihood was affected. This picture is the same for all the West and Central African countries, the study observed.

The Guardian in a similar study in (2021) in South Sudan confirmed that flood have ravaged families, thus people spent hours searching for water lilies to eat after intense rainfall which worsened an already dire situation. The crisis, according to the Guardian over time, became a humanitarian case as most people have been chased out of their homes by flood water. Some people, according to the report, constructed small grass island in the flood water to sleep on. About 1.7 million displaced people were forced to higher ground for safety while some crossed border to Sudan. The paper observed further that some persons had cough because they slept in the open. It was also recorded that cases of snake bites rose dramatically leading to the death of children. Cable Network News (CNN) 2020 in their 2020 coverage of flood in Lagos State, Nigeria, observed that perennial flooding in Nigeria's coastal areas left many dead and scores displaced. Quoting Nigeria Emergency Management Agencies (NEMA), CNN reveals that not less than 69 deaths were recorded due to flood in 2019. They also established that the health of flood-impacted persons was affected.

It is on this basis that Osuji, Enyioma and Ruby (2016) in their study on flood and health in the United State of America advised that the provision of social amenities should form part of the state palliative as such will help to reduce illness occasioned by natural disasters like flood. Re-emphasizing this, Christopher and Sue (2000) in Obuzor (2021), claim that apart from flood, problems, victims equally suffer diarrhea, cholera, dysentery, hepatitis A and E, typhoid fever, emotional Truman among others.

Communities in Ahoada West Local Government Area, except in 2021, have experienced yearly incidences of flood since 2012. In each of the flood cases, people were displaced, thus make shift camps were provided. In some cases, these people used public schools, classrooms as their camp. This, of course, can predispose them to a number of health challenges. For example Tonye-Scent and Uzobo (2020) in their study of these phenomena in Niger Delta established that the internally displaced persons suffered health insecurity.

Ogbanga (2015) in Obuzo (2021) looked at this link between flood and socio-economic livelihood in Orashi region of Rivers state and

discovered that health insecurity was notable for those who experienced the flood. These works so highlighted above though provided insights into this study, but differ from the current work. Some discussed loss of lives and properties due to natural disaster and in the distribution of relief materials to cushion human sufferings associated with flood. Some limited their study in a particular flood and how such flood has affected socio-economic livelihood, but none covered flood induced internally displaced persons in Ahoada West Local Government Area of Rivers State, Nigeria.

OBJECTIVES OF THE STUDY

1. To investigate if the yearly flood incidence has the potentials to cause health insecurity to the internally displaced persons in the areas covered by this study.
2. To identify health-related security problems of internally displaced persons caused by flood in the area of the study.
3. To proffer solutions that will reduce health insecurity of internally displaced persons through elimination of the factors that can cause flood.

RESEARCH QUESTIONS

- i. How can one investigate if the yearly flood incidence has the potentials to cause health insecurity to the internally displaced persons in the area of the study?
- ii. How can one identify health-related security problems of internally displaced persons caused by flood in the area of this study?
- iii. What solution can be proffered to reduce health insecurity of internally displaced persons through elimination of the factors that can cause flood in the area of the study?

THEORETICAL FRAMEWORK

The study is anchored on Social Inclusion Theory. This theory was propounded in 1970 by René Lenoir (Robo, 2014). In a nutshell, Social Inclusion Theory serves as antithesis of Social Exclusion Theory. It is seen as a result of the action taken completely, positively, absolutely and surely, as against exclusion paradigm geared towards changing the circumstances of people that are in need. Accordingly, the theory is concerned with groups of people who need assistance due to their prevailing situation. One of the assumptions of the theory is that in a socially inclusive society, everyone is valued and their basic needs are supplied to them. This in turn leads to a sense of belonging amongst the people. Based on this premise, Social inclusion thrives on the values that everyone needs support; therefore collective contribution is invaluable for a better society.

From the assumption of this theory, it is evidence that the theory is apt for this study. The choice of this theory is predicated on its core emphasis on inclusive governance and its interest in helping those who are in need which internally displaced flood persons in Ahoada local government area is one. This is true as the theory sees internally displaced victims of flood as those in need. Such need is what Maslow referred to as physiological need of which health is imperative. The theory gives concern to the health need of the internally displaced persons in Ahoada West LGA of Rivers State, Nigeria. It supports better management of the health crisis resulting from flood situation and other insecurity situation that affects lives in the area. When effort are put towards ensuring inclusive governance that cares or provides relief for the people, it will in turn enhance human health security.

LITERATURE REVIEW

Of Late, flood has become one of the obvious evidence of climate change. Its incidence rate has increased phenomenally overtime. In each case, people are forced to migrate to a safe place. As one of its effects, displaced person has constituted major challenge overtime to many government and nations. In this instance, an internally displaced flood person is one who has been forced to flee or as United National Human Rights (2020) say, is one who forcefully, leave their home or place of habitual residence in particular as a result of or in order to avoid the effects of armed conflict situation of generalized violence, violations of human rights or natural or human-made disaster and who have not crossed an internationally recognized border. By implication such displacement is induced by flood which has overtaken the home. Secondly, such displacement is within a given territory. Ferris (2008) call it disaster induced displacement. Specifying further, United Nations Human Right Commission (2020) claim that such population have not crossed a border to find safety.

What could be deduced from the above definitions of flood displaced person among other things is that such movement is involuntary in nature; such movement takes place within the national border and that environmental crisis is the core reason for movement. What could cause flood-induced human displacement according to Kakinuma, Puma, Hirabayashi, Tanoue, Baptista and Kanae (2020) is multi-faceted. However these scholars identified extreme weather, population increase and socio-economic conditions among other converging factors. Of these factors, most scholars believe that global climate change contribute immensely to the phenomenon of flood and flood displacement of person. Reaffirming this,

Environmental Research Letter (2008) claimed that since 2008, disasters caused by natural hazards have caused 288 million people to be displaced. In this figure the paper observed that flood account for about half of all disasters displacement, flood alone have caused 63% more displacement than conflict and violence. Even Research Brief (2020) in their work on this claim that flood as a major drive for displacement is as a result of climate change, demographic and socio-economic factors.

Unlike Research Brief (2020), Echendu (2021) in exploring the flood challenges in Nigeria discovered that apart from climate change, perennial flooding in Nigeria is caused by poor planning and provision of necessary infrastructure. That is, Nigeria's case is anthropogenic in nature; human-induced. Using 2012 flood, this researcher claimed that 16.9 billion US dollars was lost to flood and that the number of displace persons cannot be ascertained. In this, the scholar identifies poor drainage systems, poor waste management and unregulated urban expansion without commensurate provision of urban infrastructure and amenities as well as corruption as part of the anthropogenic factors.

Similarly, Agbola, Ajayi, Taiwo and Wahab (2013) insist that apart from climate change, rainfall intensity, frequency, topography, nature of the soil in their study of August 2011 in Ibadan, Nigeria, also contribute immensely to flooding that caused human displacement. In these studies and many others, flood, each time it occurs, not only cause's forced movement of people alone, but threaten displaced people's life. Tonye-Scent and Ezoba's (2020) work on this phenomenon in Niger Delta region of Nigeria confirm that most of the internally displaced flood persons suffered High Blood Pressure, cholera, hernia, malaria, measles, tuberculosis and typhoid. These health conditions are occasioned by the flood. In this work, High Blood Pressure is caused by stress, the loss of property and the loss of their socio-economic livelihood. According to Kakinuma, Puma, Hirabayashi, Tanoue, Baptista and Kanae (2020), flood-displaced persons endure family separation, loss of their possession, trauma and depression. These of course can cause high blood pressure.

World Health Organization (WHO) (2003) in Obuzor (2021) equally likened flood victims to health complication occasioned by flood. Among these death, injuries and mental illness are some of the ill-health conditions they observed. Obioma, Han, Arthur, William, Peterson (2011) as observed above, indicated that flood-induced displaced persons suffer drowning, acute asthma, skin rashes,

gastroenteritis and respiratory infections. What is clear from the above is that flood displaced persons are not free from health insecurity. In fact internally flood displaced persons irrespective of the causal factors are exposed to greater number of health insecurity problems. These, if not properly handled can lead to more complication in health.

AREA OF THE STUDY

Ahoada West is a Local Government Area in Rivers State, Nigeria, located northwest of Port Harcourt. It was extracted in 1996 from the old Ahoada local government that makes up the present Orashi region of Rivers State. The Local Government Area is made up of the Ekpeyes and the Engenni's. The Orashi River crosses the entire local government area and its vegetation is forest thus the people occupation is mainly farming, fishing and Hunting. The population of the people in the area is about 288,502 (2006 census). There are about 84 villages in the Local Government Area. and the inhabitants practice several religions with the majority being Christians and traditional religion. Ahoada West Local Government Area has an estimated humidity of 88 percent with an average annual temperature of 27 degrees centigrade. The area also features a number of rivers and tributaries with the most prominent being the Orashi Rivers. As fishermen and farmers, their popular crops include oil palm, yam, cassava and a variety of vegetables. Also, mineral deposits such as crude oil and natural gas contribute enormously to the economy of the Ahoada West people.

METHODOLOGY

This work is a survey and quantitative research. Primary and Secondary sources of data were employed to illicit data from the respondents. The sample size for this study is 100 respondents selected through convenience sampling technique. Through simple random sampling technique, Ubie and Ibuduya were selected for Epkeye ethnic nationality while Engenni and Ogbogolo were selected for Communities in Engenni. Quota sampling technique was used to assign 25 persons to each of the four communities. The respondents for the study are youths, women and family heads. The collected data were analyzed through mean and standard deviation. 100 questionnaires were given and the same number retrieved for the study.

Data Presentations and Analysis

Research Question 1: How can one investigate if the yearly flood incidence has the potentials to cause health insecurity to the internally displaced persons in the area of the study?

Table 2: Showing Mean and Standard Deviation scores of the yearly flood incidence and if it has the potentials to cause health insecurity to the internally displaced persons in the areas of this study

S/N	Questionnaire Items	No	Mean	Std.dev	Decision
1	During flood period, people are exposed to hazardous environment.	100	3.20	0.64	Accept
2	Loss of homes and properties during flood period have the tendency of placing flood victims on serious thinking	100	3.13	0.86	Accept
3	Those who are displaced due to flood may find it difficult to adapt to their new environment; hence may likely not feel happy and as well may resort to serious thinking.	100	3.33	0.67	Accept
4	As a result of the yearly flood, did you personally experience intense fear, helplessness or shock	100	3.71	0.56	Accept
5	Because of past experiences of flood, did you feel anxiety when it wants to rain	100	2.98	0.82	Accept
6	Flood may be accompanied by deadly flies and insects that are not good to human health.	100	3.01	0.70	Accept
Grand Mean			3.13	0.71	Accept

Source: Field Study 2021

The table above shows Mean and SD scores that the yearly flood incidence has the potentials to cause health insecurity to the internally displaced persons in the areas of this study. Accordingly, item 1 state that during flood period, people are exposed to hazardous environment, had the following scores (M=3.20 & SD=0.64). Item 2 that loss of homes and properties during flood period have the tendency of placing flood victims on serious thinking, had the following scores (M=3.13 & SD=0.86). Also, item 3 that those who are displaced due to flood may find it difficult to adapt to their new environment, hence may likely not feel happy and as well may resort to serious thinking, had the following scores (M=3.33 & SD=0.67). Item 4 that due to yearly flood, did you personally experience intense fear, helplessness or shock had the following scores (M=3.71 & SD=0.56). Item 5 on Because of past experiences of flood, you feel anxiety when it wants to rain, had the following scores (M=2.98 & SD=0.82). Again, item 6 on Flood may be accompanied by deadly flies and insects that

are not good to human health, had the following scores (M=3.01 & SD=0.70). However, with grand mean of 3.13 and with all the mean scores above the criterion mean of 2.5, it implies that the items supports the view that the yearly flood incidence has the potentials to cause health insecurity to the internally displaced persons in the areas of this study. Given the above, it reflect with the study of Achnedu (2020) who posited that flooding has been the highest cause of internal displacement after conflict in Nigeria whose effects can cause health challenges to displaced persons.

Further, Igwe (2016) lamented that flood situations gives room to increased bacterial and can cause diseases among humans.

Research Question 2: How can one identify health-related security problems of internally displaced persons caused by flood in the area of this study?

Table 3: Showing the Mean and Standard Deviation scores for health-related security problems of internally displaced persons caused by flood in the area of the study

S/N	Questionnaire Item	No	Mean	Std.dev	Decision
7	In a situation where there is lack of support during recovery process, most displaced flood persons experience post- traumatic stress disorder.	100	3.61	0.59	Accept
8	Flood displaced Victims may experience high blood pressure.	100	3.45	0.63	Accept
9	Some flood victims may likely be exposed to infectious diseases.	100	3.16	0.86	Accept
10	Most persons of flood victims may likely experience sleeping problem	100	2.67	0.96	Accept
11	Most victims may experience respiratory/chest illness (e.g. asthma and pleurisy)	100	3.15	0.70	Accept
12	Some flood displaced persons often experience Gastro-intestinal illness/upset stomach	100	2.84	0.94	Accept
13	Flood displaced persons may be vulnerable to cold, coughs, flu, sore throats or throats infection	100	3.48	0.62	Accept
Grand Mean			3.19	0.76	Accept

Source: Field Study 2021

The Tables 3 above shows Mean and SD scores for health related insecurity problems of

internally displaced persons caused by flooding in the area of the study. Therefore, item 7 that in a

situation where there is lack of support during recovery process, most displaced flood persons experience post-traumatic stress disorder, had the following scores (M=3.61 & SD=0.59) Accordingly, Item 8 that Flood displaced Victims may experience high blood pressure, had the following scores (M=3.45 & SD=0.63). Item 9 that some flood victims may likely be exposed to infectious diseases, had the following scores (M=3.16 & SD=0.86). Also, item 10 that Most persons of flood victims may likely experience sleeping problem, had the following scores (M=2.67 & SD=0.96). Item 11 that Most victims may experience respiratory/chest illness (e.g. asthma and pleurisy), had the following scores (M=3.15 & SD=0.70). Item 12 that some flood displaced persons often experience gastrointestinal illness/upset stomach, had the following scores (M=2.84 & SD=0.94). Again, item 13 that flood displaced persons may be vulnerable to cold, coughs, flu, sore throats or throats infection, had the following scores (M=3.48 & SD=0.62). Therefore, the

acceptability of all the items and with grand mean of 3.19 which is above 2.5, shows that all the items are health related insecurity problems that are caused by flooding in the study area. Corroborating this finding, Nikola (2013) posited that flood water is contaminated with chemical and other heavy metals and harmful substances. This heavy metals chemical and other harmful substances pollute or contaminate the flood water and this bring about infectious diseases after flood such as typhoid fever, malaria, high blood pressure and many more. Adding to this, Schwartz *et al.*, (2006) revealed that water borne and vector-borne disease emanating from floods which contains contaminants have led to high death rate.

Research Question 3: What solutions can be proffered to reduce health insecurity of internally displaced persons through elimination of the factors that can cause flood in the area of the study?

Table 4: Showing the Mean and Standard Deviation scores for the solutions that will reduce health insecurity of internally displaced persons through elimination of the factors that can cause flood

S/N	Questionnaire Items	No	Mean	Std	Decision
14	Need for social support by government, NGOs and other private sectors.	100	3.65	0.67	Accept
15	Flood victims should be taken to the hospital for proper diagnosis and treatment.	100	3.71	0.59	Accept
16	Government should ensure to open a wide drainage system that can enable free flow of water	100	3.46	0.68	Accept
17	There is need for serious dredging of Orashi River	100	3.40	0.91	Accept
18	Flood forecasting and Early warning mitigation	100	3.60	0.92	Accept
19	Application of flood-protection Scheme	100	3.25	0.64	Accept
20	Ensuring, that there is engineering control of the major river system	100	3.75	0.77	Accept
21	Need for the establishment of coastal management zone authority	100	3.54	0.68	Accept
	Grand Mean		3.54	0.73	Accept

Source: Field Study 2021

The table 4 above shows Mean and Standard Deviation scores for the solutions that will reduce health insecurity of internally displaced persons through elimination of the factors that can cause flooding. Therefore, item 14 that Need for social support by government, NGOs and other private sectors had the following scores (M=3.65 & SD=0.67). Item 15 that state that Flood victims should be taken to the hospital for proper diagnosis and treatment, had the following scores (M=3.71 & SD=0.59). Item 16 that Government should ensure to open a wide drainage system that can enable free flow of water, had the following scores (M=3.46 & SD=0.68). Also, item 17 that there is need for serious dredging of Orashi River, had the following scores (M=3.40 & SD=0.91). Item 18 thatbecause those occupying political office are handpicked, sustainable development becomes a challenge had the following scores (M=3.60 & SD=0.92). Item 19 on application of flood-protection Scheme had the

following scores (M=3.25 & SD=0.64). Again, item 20 on ensuring that there is engineering control of the major river system had the following scores (M=3.75 & SD=0.77). Item 21 on the need for the establishment of coastal management zone authority, had the following scores (M=3.54 & SD=0.68). By implication, given the grand mean score of 3.54 which is above the criterion mean of 2.5, it implies that the respondents support the items that they are solutions that can reduce health insecurity of internally displaced persons through elimination of the factors that can cause flooding. Supporting this findings, study by Igwe (2016) revealed the need for coping mechanisms of the flood victims.

CONCLUSION AND RECOMMENDATIONS

Health insecurity is a serious problem to human survival. It has been revealed through the

study that flood constitutes the second highest level of forced migration or displacement after conflict. Thus, the study has been able to investigate on the impact of the yearly flood incidence to the internally displaced persons and also proffer some key solutions. Given the above, the study recommended the following as the way forward:

- i. Given the fact that the yearly incidence of flood and its potential to cause health insecurity, it is imperative for residents in Ahoada West Local Government Area and other flood prone areas to have good provision that will minimally reduce the impact flood each time it occurs. If this is achieved, it will reduce the problem of intense fear, serious thinking, avoid being exposed to hazardous environment amongst other.
- ii. Flood victims should always ensure to take medical treatment and counseling to help reduce the crisis of infectious diseases and high blood pressure.
- iii. Finally, the government and other humanitarian NGOs should ensure to assist in preventing and reducing the menace or occurrence of yearly flood. This can be achieved through effective engineering control measure, flood forecasting, dredging of the Orasi River and establishment of deep drainage system.

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