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Health Insecurity among Internally Displaced Persons in the Niger Delta Region of Nigeria

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Abstract

Health insecurity is a major problem affecting the well-being of internally displaced persons in Nigeria. In the Niger Delta region, the situation remains virulent with attendant consequences on the displaced population. This study investigated health insecurity among the internally displaced persons. Data were sourced across three States of the Niger Delta Region, identified among areas with a high rate of internal displacement. Human Security Approach was employed as a theoretical framework. A total of 582 respondents (Bayelsa = 206, Delta = 211, and Rivers = 165) who had been displaced between the year 2012 to 2018 were randomly selected, and a questionnaire was administered. Findings indicated that 51.9% of respondents in Delta state, 50.0% in Rivers state, and 35.7% in Bayelsa state were diagnosed with diseases resulting from flood displacement. The diseases diagnosed were high blood pressure, cholera, hernia, malaria, measles, tuberculosis, and typhoid. While the diagnosis of blood pressure was high in Bayelsa (3.9%) and Delta (3.5%), the diagnosis of cholera was not recorded in Bayelsa and Delta States but Rivers state (3.4%). Those displaced by flood were 0.4 times less likely to experience abnormal health status than those displaced by other causes. The study concluded that displacement has serious implications on the health of internally displaced persons. It, therefore, recommended that medical centres should be cited in displaced camps to cater for the medical needs of the displaced population.

Keywords: Displacement, health insecurities, flooding, Niger Delta, health status

Introduction

The health of internally displaced persons has attracted the attention of demographers, sociologists, and epidemiologists in recent times (Heudtlass, Speybroeck & Guha-Sapir, 2016; Owoaje, Uchendu, Ajayi & Cadmus, 2016; Burns, Wickramage, Musah, Siriwardhana & Checchi, 2018). During internal displacement, several factors usually influence the health of victims (Thomas & Thomas, 2004). The most interesting debate on internal displacement has been the assumption that the displaced migrant population has a lower crude

mortality rate than the host population. However, this debate remains inconclusive as some scholars have tagged it: the healthy migrant bias, because it is believed that it is the healthiest individuals that are usually involved in migration or selected by others for migration purpose (Sander, 2007; Niu, 2013; Lu & Qin, 2014).

It has been stated that flooding is the second highest cause of internal displacement after conflict in Nigeria (Achendu, 2020). In fact, it has been reported that in the 2012 flood disaster which has been dubbed to be the worst natural disaster in recent times (Toure 2014), an estimated 2.3 million persons were internally displaced, while another 363 lost their lives (Oladokun & Ptoverbs, 2016). Still, about 16 million persons also faced related human security and health challenges (Achendu, 2020), as a result of the 2010 flooding disaster.

It has been noted by a study conducted by Uzobo and Akhuetie (2018) that IDPs do experience a range of health-related risks and problems. This is because given their conditions, they are exposed to physical, psychological and mental health-related challenges (Mooney, 2005). In fact, some findings have indicated that IDPs, especially women and girls are more likely to be victims of physical and sexual abused while in internally displaced persons (IDPs) shelter (Stark *et al.*, 2010; Vu *et al.*, 2014).

It has also been previously indicated by a study that epidemics such as yellow fever, cholera, and hepatitis E are very prevalent in IDPs camp in most African countries experiencing internal displacement (Nicole, 2015). The internally displaced population particularly, those affected by insecurity and conflict-related factors usually report psychological problems like post-traumatic stress disorders (PTSD) as a reaction to the loss of loved ones and properties (Getanda, Papadopoulos & Evans, 2015). The study of Saxon *et al.*, (2016) also identified anxiety and panic attacks as mental health problems among IDPs.

According to the United Nations Office for the Coordination of Humanitarian Affairs -UNOCHA (2016), health is one of the most important needs IDPs. Similarly, Adimula (2014) in his study indicated that pregnant women in IDP camps are likely to face a lot of reproductive health challenges especially during delivery from unskilled birth attendants. Other challenges also identified among IDPS include; poor environmental sanitation, a high probability of communicable diseases, poor nutrition etc. It is on this note that we can categorically state that internally displacement affects the health of women and children the most. In some cultures, women are not allowed to seek health care from male practitioners. This has several implications for reproductive women since they may not have access to trained health professionals (Adimula, 2014). Children who are displaced have also been found by studies to suffer from poor nutrition and inadequate healthcare services (Uzobo & Akhuetie, 2018; Adimula, 2014).

For instance, two newspapers in Nigeria (Premium Times and Guardian) reported in 2015 that about 459 deaths among children aged between 1-5 resulted from malnutrition in IDP camps in Borno State. Another report from

NEMA also indicated that about 209,577 children in IDP camps have experienced malaria, malnutrition and other child-health related problems. (Adimula, 2016). By implication, displaced children are more likely to experience stunted growth due to poor nutrition.

Despite the annual flood witnesses in Nigeria, very few empirical studies had been conducted among the internally displaced persons in the Niger Delta region of Nigeria. This study, therefore, investigated health insecurity challenges emanating from flood related displacement in the Niger Delta region of Nigeria.

Theoretical Framework

The Human Security Approach formed the basic theoretical approach of this paper. This approach which emanated as a result of the developmental needs of IDPs was designed to mainly address the security challenges faced by vulnerable groups in IDP camps. Hence, this approach was a direct challenge to the traditional dominance state-centric paradigm of human security and development. According to this approach, the primary role of the state is to ensure that basic human security needs are met (Tadjbakhsh, 2007).

The Human Security approach has two school of thoughts namely; Freedom from Fear Approach and Freedom from Want Approach. While the freedom from fear approach which mainly addresses the concerns of this paper deals with what emanating threat IDPs should be protected from. It also addresses the appropriate mechanisms for dealing with the threats vulnerable IDPs face. Hence, this approach advocated for a human security practice that shield vulnerable populations from human insecurity problems like poverty, poor health, inequality, and malnutrition (UNDP, 1994). Still, this approach added that emergency assistance, peace building, conflict resolution and prevention etc. are the preconditions to sustaining human security among vulnerable groups. The freedom from want approach on the other hand, advocated for an all-inclusiveness approach in achieving human security especially in a conflict situation. This second approach thus elaborated that human security approach should be expanded to include natural disasters, hunger, disease, etc as these are vital elements in addressing the source of human insecurities among vulnerable groups (UNDP, 1994), and that these factors may cause more problems to vulnerable groups than conflict (Tadjbakhsh, 2007).

Methods

This study adopted a cross-sectional survey in its mode and methods of investigation. The study covered the three most affected states of population displacement in the Niger Delta Region, namely; Bayelsa, Delta, and Rivers. These states have recorded the highest rates of factors that trigger population displacement in the region when compared to other states. The target population of the study was men and women aged 18 years and above who are residents in the communities that had experience population displacement in

the last ten years preceding the study. The sample size for the study was determined using Cochran's (1977) sample size determination formula.

$$n = \frac{Z^2 P(1-P)}{e^2} + [5\% \text{ Attrition}]$$

Although with the use of the above-stated equation, the sample size arrived at was 600; only 582 responses were found valid for analysis. The study made use of the multi-stage sampling technique. Stage one of the sampling purposively selected Bayelsa, Delta, and the Rivers States being the states with the highest proportion of people who were displaced internally in the last ten years in the Niger Delta region. Stage two involved the selection of three LGAs in each of the selected states through a quota sampling technique. This was adopted because of the need for the selection of an equal number of LGAs in each of the states. Stage three involved the purposive selection of communities affected by displacements. In Bayelsa state Amassoma, Angiama, Ejedebir, Igbedi, Kaiama, Koluma, Odi, Ogobiri, Opokuma, and Sagbama formed the communities where sample the population were drawn from. In Delta state, Akugbe, Akugbene, Bomadi, Esanma, Ikogbene, Patani and Tumo were the selected communities, and in Rivers state, Abua, Anakpo, Asarama, Ebukuwa, Ekpeye, Emogani, Emzi I, Emzi II, Ikuru, Iwoma, Obodin, Ubeta, Ukpeliel, Ulaokobo, Uyakama, and Welewele were sampled. Stage four involved the actual selection of participants drawn through random selection. Respondents were randomly selected using street and house numbering as sampling frames. In rural communities where there was no house numbering system, the researchers numbered the houses and selected respondents until the whole selection was completed.

The quantitative data for the study was collected with the use of the questionnaire. The questionnaire was designed in sections to elicit information in each of the objectives the study aimed at achieving, namely; the socio-demographic characteristics of the respondents; information about the patterns and causes of population displacement; and information about the impact of population displacement on human health. Data collected were analysed with the aid of the SPSS while employing univariate, bivariate, and multivariate analysis.

The instruments of data collection were validated through a pilot study conducted in six (6) communities. This was necessitated so that adjustments could be made to the instruments where necessary before the actual fieldwork was conducted. The validity of the instruments was also validated using face and construct validity with the aid of an expert in the field of social research. The reliability of the research instrument was determined through a pilot study where 10 copies of the research instrument were pre-tested in two communities different from that of the selected communities in the study, after which a Cronbach's alpha α reliability test was conducted. This yielded a reliability value of 0.762 which indicates that there was a high level of internal consistency. Research ethics approval was sought from the Bayelsa State

Ministry of Health (Bayelsa State Health Research Ethics Committee-BSHREC) with approval number: BSHREC/vol.1/16/97/. In addition to this, the following specific areas of ethical considerations were also strictly adhered to: Informed consent, voluntary participation, anonymity, the confidentiality of data, beneficence to participants, non-maleficence to participants, and Justice.

Results and Findings

Socio-demographic characteristics of respondents

Table 1 shows the socio-demographic profiles of the respondents. The results reveal that majority of the respondents except Bayelsa state were from the rural areas when compared to those of their urban counterparts.

Table 1: Socio-demographic Characteristics of Respondents

Socio-demographic variables	States			p-value
	Bayelsa (n=206)	Delta (n=211)	Rivers (n=165)	
Location				
Rural	75 (36.4)	96 (53.6)	175 (88.8)	0.000
Urban	131 (63.6)	83 (46.4)	22 (11.2)	
Sex				
Male	85 (41.3)	109 (60.9)	111 (56.3)	0.000
Female	121 (58.7)	70 (39.1)	86 (43.7)	
Age				
Below 20	14 (6.8)	2 (1.1)	12 (6.1)	0.001
21-30	105 (51.0)	78 (43.6)	86 (43.7)	
31-40	42 (20.4)	71 (39.7)	59 (29.9)	
40 +	45 (21.8)	28 (15.6)	40 (20.3)	
Marital Status				
Single	89 (43.2)	71 (39.7)	58 (29.4)	0.000
Married	99 (48.1)	82 (45.8)	125 (63.5)	
Widow/widower	18 (8.7)	-	13 (6.6)	
Divorced/separated	-	26 (14.5)	1 (0.5)	
Number of children in the household				
No children	105 (51.0)	67 (37.4)	44 (22.3)	0.000
1-2 children	37 (18.0)	44 (24.6)	45 (22.8)	
3-4 children	43 (20.9)	26 (14.5)	59 (29.9)	
5-6 children	14 (6.8)	8 (4.5)	49 (24.9)	
7 or more children	7 (3.4)	34 (19.0)	-	
Education				
No formal education	6 (2.9)	11 (6.1)	15 (7.6)	0.000
Primary	26 (12.6)	19 (10.6)	-	
Secondary	81 (39.3)	82 (45.8)	71 (36.0)	
Tertiary	93 (45.1)	67 (37.4)	111 (56.3)	
Employment status				
Unemployed	12 (5.8)	21 (11.7)	24 (12.2)	0.000
Employed	194 (94.2)	152 (84.9)	173 (87.8)	
Retirees	-	6 (3.4)	-	
Average income (in Naira)				
Less than N10000	43 (20.9)	52 (29.1)	34 (17.3)	0.000
N10000-N20000	18 (8.7)	57 (31.8)	32 (16.2)	
N20000-N30000	46 (22.3)	4 (2.2)	12 (6.1)	
N30000-N40000	9 (4.4)	6 (3.4)	41 (20.8)	
N40000 +	90 (43.7)	60 (33.5)	78 (39.6)	
Family type				
Monogamy	134 (72.8)	66 (39.5)	99 (60.7)	0.000
Polygamy	50 (27.2)	101 (60.5)	64 (39.3)	
Religion				
ATR	-	11 (6.1)	39 (20.4)	0.000
Christianity	200 (100.0)	168 (93.9)	146 (76.4)	
Islam	-	-	6 (3.1)	

ATR= African traditional religion; *Significant at $p < 0.05$

The gender distribution by states, also revealed that more than half of the respondents in each state are male. The age distribution of respondents again, indicated that most of the respondents were in their middle-ages. The marital status of the also shows that there are more married respondents across the three states selected for the study. Concerning the numbers of children, the study revealed that respondents with more than two children were more than those in other categories.

Table 1 additionally indicated that a large number of respondents had tertiary education qualifications. Although more respondents have a tertiary educational qualification, this however varies by state. Thus, while Rivers state had the highest number of respondents with tertiary qualifications (56.3%), Delta state had the least (45.8%). In the three states, the majority of the respondents indicated that they were employed. Additionally, the average income of the respondents showed that the majority of them earned an average income of more than N40,000 per month. The family types of the respondents showed that more than half of the respondents in Bayelsa and Rivers state have monogamous families (72.8% and 60.7% respectively), while monogamy was less prevalent in Delta state. The religious affiliation of the respondents across the three states showed that the majority were Christians when compared to other religious affiliations.

Effect of Population Displacement on Human Health

Table 2 presents the self-reported health-related challenges experienced by the respondents after the incidence of displacement across the three states. Although a larger percentage of the respondents across the three states signified that the states of their health were normal after displacement (Rivers - 64.5%, Delta - 52.6%, Bayelsa - 51.9%), a significant number of respondents still stated that their health status had changed as a result of the displacement (e.g. 48.1% in Bayelsa, 47.4% in Delta state, 35.5% in Rivers).

Again, the study revealed that the highest number of the respondents in Delta state (51.9%), 50.0% in Rivers, and 35.7% in Bayelsa state, reported of been diagnosed with one form of a health problem or the other after displacement. In ascertain the major health problems respondents were diagnosed with, the study revealed that; blood pressure, cholera, hernia, malaria, measles, tuberculosis, and typhoid were the most prevalent among the respondents. Nevertheless, this varies by state. For instance, blood pressure was found to be highest among the displaced in Bayelsa State followed by Delta state. While cholera mainly prevalent in Rivers state. Additionally, hernia was also found to be a health challenge in Bayelsa and Delta states.

Among the self-reported illness, malaria diagnosis was the highest among other diseases across the three states. It was found to be more prevalent in Delta state (17.0%) when compared to Bayelsa (13.1%) and Rivers with 9.1% respectively.

Table 2: Distribution of Respondents by the experience of self-reported health challenges after the incidence of displacement

	State			
Health challenges after displacement	Bayelsa (n=206)	Delta (n=211)	Rivers (n=165)	p-value
<i>State of health</i>				
Normal	95 (51.9)	91 (52.6)	98 (64.5)	0.000
Not normal	88 (48.1)	82 (47.4)	54 (35.5)	
<i>Diagnosed with diseases</i>				
Yes	56 (35.7)	84 (51.9)	79 (50.0)	0.000
No	101 (64.3)	78 (48.1)	79 (50.0)	
<i>Health condition diagnosed</i>				
BP	8 (3.9)	7 (3.5)	5 (2.5)	0.000
Cholera	-	-	6 (3.4)	
Hernia	5 (2.4)	1 (0.5)	-	
Malaria	27 (13.1)	34 (17.0)	16 (9.1)	
Measles	-	-	12 (6.8)	
TB	-	-	6 (3.4)	
Typhoid	9 (4.4)	16 (8.0)	12 (6.8)	
<i>The intensity of the disease diagnosed</i>				
Low	81 (39.3)	59 (29.5)	41 (23.3)	0.001
Moderate	47 (22.8)	72 (36.0)	70 (39.8)	
High	72 (35.0)	54 (27.0)	51 (29.0)	
Horrible	6 (2.9)	15 (7.5)	14 (8.0)	
<i>Death recorded after displacement</i>				
Yes	64 (31.1)	146 (73.0)	93 (52.8)	0.000
No	142 (68.9)	54 (27.0)	83 (47.2)	

BP=Blood pressure, TB= Tuberculosis, Significant at 0.05*

More so, while measles was not found to be a health challenge after displacement in Bayelsa and Delta states, some respondents in Rivers state (6.8%) stated that they experienced it. Similar to this, while tuberculosis was also not found in Bayelsa and Delta state after displacement, it was reported in Rivers State. The outbreak of typhoid fever was reported in the three states with Delta state having the highest number of respondents who stated that they had typhoid fever after displacement (8.0%), followed by Rivers state (6.8%) and Bayelsa state (4.4%).

Further analysis of the state of health conditions after the incidences of displacements was ascertained by the intensity of the disease respondents were diagnosed of. The differentials in the percentages of the intensity of the disease as revealed by states with low, moderate, high, and horrible intensity show that

respondents from Bayelsa state have the highest percentage of respondents (39.3%) with low intensity, followed by 29.5% in Delta state and 23.3% of respondents in Rivers state respectively. For the respondents that signified moderate intensity, Rivers state has the highest percentage with 39.8%, followed by 36.0% of their counterparts in Delta state and 22.8% in Bayelsa state. In terms of those who indicated high intensity, Bayelsa has the highest percentage of respondents with 35.0%, followed by 29.0% of their counterparts in Rivers state and 27.0% in Bayelsa state. Among those who reported horrible, Rivers state has the highest respondent with 8.0%, followed by Delta state with 7.5% and Bayelsa with 2.9%. Regardless of the intensity of the diseases, whatever forms of disease diagnoses, there is a need for medical attention.

Conversely, reports on mortality across the three states during or immediately after the incidences of displacement showed that Delta state had the highest number of respondents who noted that mortality had occurred as a result of displacement (73.0%), while Rivers and Bayelsa had 52.8% and 31.4% of respondents who also made similar claims.

Further exploration of the net effects of displacements on health status was predicted using logistic regression models. With three models (1, 2 & 3), the net effects of the causes of displacements, health conditions after displacement as well as selected demographic variables were included in the models. Table 3 presents the result of the logistic regression.

Model 1 shows that there is a significant relationship between the causes of displacement and the health status of the respondents. Those who were displaced by gang/cultism are one time more likely to experience abnormal health than those who were displaced by other causes of displacement. Still, in model 1, those displaced by flood are 0.4 times less likely to experience abnormal health status than those displaced by other causes such as pipeline vandalism, inferno from pipeline among others.

Model 2 shows a significant relationship between the causes of displacement and the experience of abnormal health status when conditions around health variables were added to the equation. Thus, while those who were displaced by flood are 0.6 times less likely to experience abnormal health, those who were displaced by inter-communal conflicts are 2 times as well as those who were displaced by gang/cultism 2.3 times more likely to experience abnormal health than those who were displaced by other causes.

Expectedly, whether respondents were diagnosed with any disease or not, has a significant relationship with health status being normal or abnormal. The result further revealed that those who were diagnosed with diseases are 0.1 times less likely to experience abnormal health than those who were not. When intensity disease was diagnosed was added in model 2, the result showed that there is a significant relationship between the intensity of diseases diagnosed and the experience of abnormal health status. Those who fall within the moderate category are 3 times more likely to experience abnormal health status than those in the low category. Similarly, those who are in the group of high intensity are 1 time more likely to experience abnormal or negative health status.

Additionally, model 3 examines a similar likelihood of the experience of abnormal health status after the incidence of displacement when selected demographic variables were added to the equation. Still, a significant relationship was found between the causes of displacement and abnormal health status. However, the study indicated that those who were displaced by flooding are 0.3 times more likely to experience abnormal health than those who were displaced by other causes of displacement such as pipeline vandalism among others. Again, those who were displaced by inter-communal conflicts are 0.5 times less likely to experience abnormal health status than those in the reference category. A similar trend is also observed with those who were displaced by gang/cultism, as they are found to be 3 times more likely to experience abnormal health status than those in the reference categories.

In the same model, while the diagnosis of the disease seems not to be significantly related to abnormal health status, the reverse is the case as the intensity of disease diagnosed is found to be significantly related to abnormal health status. For example, those who indicated the moderate intensity of diseases are 4 times more likely to experience abnormal health status than those in low intensity. The differentials are further revealed by states which show a significant relationship between the state and abnormal health status. Those in Delta state, for example, are 0.9 times less likely to experience abnormal health than those in Bayelsa state. Also, those in Rivers state are 0.3 times less likely to experience abnormal health than those in Bayelsa state.

Table 3: Logistic regression showing the net effects of displacement on health status

Variables	Model 1 OR	Model 2 OR	Model 3 OR
<i>Causes of displacement</i>			
Other causes of displacement (ref)	1.000	1.000	1.000
Flood	0.398**	0.594**	0.271*
Inter-communal conflict	0.589	2.010**	0.429**
Gang/cultism	1.015*	2.334*	2.892**
<i>Health condition after displacement</i>			
<i>Disease diagnosed</i>			
No (ref)		1.000	1.000
Yes		0.106**	0.124
<i>The intensity of the disease diagnosed</i>			
Low (ref)		1.000	1.000
Moderate		3.277**	4.495**
High		1.122*	1.326
Horrible		-	-
<i>State</i>			
Bayelsa (ref)			1.000
Delta			0.883*
Rivers			0.320**
<i>Location</i>			
Rural (ref)			1.000
Urban			1.609
<i>Sex</i>			
Male (ref)			1.000
Female			0.497*
<i>Age</i>			
Below 20 (ref)			1.000
21-30			0.190
31-40			0.962
40 +			0.217*
-2 Log likelihood	601.689	460.554	394.034
Cox & Snell R Square	0.038	0.299	0.396
Nagelkerke R Square	0.051	0.398	0.528
Number of observations=582			
Significant at $p < 0.05$ * $p < 0.01$ **			
OR=Odd ratio			

In respect to the locations of the respondents, there is no significant relationship between locations (rural and urban) of respondents and abnormal health status. On the other hand, gender is significantly related to abnormal health status after displacement. Thus, females are 0.5 times less likely to experience abnormal health status than their male counterparts. With regards to age, only those in the age category of 40 years and above are found significantly related to abnormal health after displacement. Indeed, they are 0.2 times less likely to experience abnormal health status than those below the ages of 20.

Discussion of Findings

Earlier reports have shown that displacement is often associated with the outbreak of diseases and infirmities. IDMC (2014), thus stated that in sites of displacement, several cholera cases and mortality are likely to be reported among IDPs. This is similar to the findings in this study which indicated that the displacement experienced by the respondent in the study area might have likely triggered the outbreaks of malaria, typhoid fever, high blood pressure among others in the affected communities. The net effects of health conditions of the respondents were assessed using logistic regression, it was found that there was a significant relationship between the causes of displacement and the experience of abnormal health status. Those who were displaced by flood at model 2 for example, were 0.6 times more likely to experience abnormal health than those who were displaced by other causes of displacement.

Although there was no significant relationship between the locations (rural and urban) of the respondents and abnormal health status, there is a significant relationship between gender and abnormal health status after displacement. Thus, females are 0.5 times less likely to experience abnormal health status than their male counterparts among other demographic variables. This is found to be different from other studies that have previously indicated that women and children are more likely to experience poor health and nutritional challenges during displacements (Uzobo & Akhuetie, 2018; Mooney, 2005; Adimula, 2014).

Conclusion and Recommendations

The findings from the study concluded that displacement irrespective of the causative factor was found to be implicative in the health of the victims. The impact on the displaced such as malaria, typhoid, blood pressure, measles, etc. was severe and the epidemic was high after the displacement. The spread of diseases, the intensity of health conditions, and diseases diagnosed were significantly related to displacement.

In the view of the findings of this research, the following recommendations are presented as a policy framework for the government and the concerned agencies in population displacements; Firstly, communities prone to natural causes of displacement (e.g. flooding) in the Niger Delta region should be relocated through planning and research till the environment is safe from natural causes of displacements which oftentimes result to health challenges.

Again, the medical needs of the affected communities with displacements during and after displacements should be catered for by the governments and concerned agencies to mitigate the negative impact of displacements on the health status of the affected population. Finally, attitudinal change in the affected communities through counselling during the period of and after displacement should be advocated so that domestic violence, abuse of human fundamental rights, and other forms of crimes at camps and affected communities are prevented.

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