

## Original Article

### ATTITUDE OF HEALTH WORKERS TOWARDS PATIENTS: AN AFTERMATH OF EBOLA OUTBREAK IN NIGERIA

Oluymi, Joseph A<sup>1</sup>; Yinusa, Mohammed A.<sup>1</sup>; Abdulateef, Raji<sup>1</sup>; Atolagbe, Emmanuel<sup>1</sup>; Adejoke, Joseph<sup>2</sup>; Kehinde, Kadiri<sup>3</sup>; Gbenga, Popoola<sup>4</sup>; Motolani, Williams Taiwo<sup>5</sup>

<sup>1</sup>Department of Sociology, University of Ilorin, Nigeria; <sup>2</sup>Department of Medical Microbiology and Parasitology, University of Medical Sciences, Ondo, Nigeria; <sup>3</sup>Department of Mass Communication, University of Ilorin, Nigeria; <sup>4</sup>Department of Community Health and Epidemiology, University of Ilorin, Nigeria; <sup>5</sup>Department of Education, Babcock University, Nigeria

#### ABSTRACT

Attitude is a mental and emotional construct that characterizes people. It is formed from a people's past and present experiences and is instrumental to how people think and behave. This study investigates the attitude of health workers towards patients in some tertiary hospitals in Southwest Nigeria as a result of the aftermath of the last outbreak of Ebola virus disease in Nigeria. 600 consenting participants selected through a two-stage sampling method were involved in the study. Data was retrieved through administration of structured questionnaire designed in five-point Likert-scale format. About two third of the participants (32.3%) involved in the study were nurses while (22.0%) were doctors. (34.7%) of the participants disagreed that health workers suspect patients have Ebola virus disease at first contact with them while (48.0%) agreed that health workers are afraid when they have contact with patients. In addition, (36.7%) of the participants in the study disagreed that health workers do not move close to patients when examining patients who are febrile while (39.3%) disagreed that health workers are irrational and harsh to patients. In all, the study showed that, (52.7%) of the participants in the study have positive attitude towards patients. This is without prejudice to previous experience of health workers being infected with the deadly disease from patients during the last outbreak in 2014. The study recommended dissemination of adequate information on Ebola virus disease among health workers to forestall future infection of Ebola virus disease from patients. Massive attitudinal change towards patients among health workers in the study population is also strongly recommended.

**Keywords:** Ebola Virus Disease, Irrational, Suspect, Harsh, Afraid, Fear, Febrile, Empathize.

---

\*Corresponding Author Email: [Josepholuyemi1@gmail.com](mailto:Josepholuyemi1@gmail.com)

Tel: +23480342013

## INTRODUCTION

Nigeria may have been said to be free from Ebola virus disease by World Health Organization WHO (2014), its footprints in the heart of health workers in the country that had a share of the deadly disease from infected patients, will linger for some time to come. Ebola virus disease which is also known as Ebola haemorrhagic fever is a viral haemorrhagic fever of human and other primates caused by Ebola virus. It was first discovered in 1976 in two simultaneous outbreaks in West Africa (WHO, 2014). The disease has a high risk of death, killing between 25 and 90 percent of those infected with an average death of 50 per cent (World Health Organization, 2014). This is as a result of low blood pressure from fluid loss in the body which typically occur six to sixteen days after symptoms of the disease have appeared (Daniel, 2014).

Between 1976 and 2003, the outbreaks of EVD have occurred intermittently in the sub-Saharan involving 1,716 people (WHO, 2014 and Centres for Disease Control and Prevention, 2014). The largest outbreak was the one recorded in West African region in 2014 affecting Guinea and Sierra Leone and Nigeria (WHO 2014 and Centers for Disease Control and Prevention, 2014). As of October 2015, 28,512 reported cases of EVD have been recorded resulting in, 11,313 deaths (WHO, 2015). Unfortunately, since the first reported outbreak of EVD of the disease in 1976, infections acquired in health care facilities has been recognised as an important cause of morbidity and mortality particularly in health workers (WHO, 2015). Doctors and other health workers who are in the front lines of Ebola crisis have been among the most vulnerable to the infection as they are in direct physical contact with patients (WHO, 2000; Olowookere et al. 2015; Shears and Dempsey, 2015).

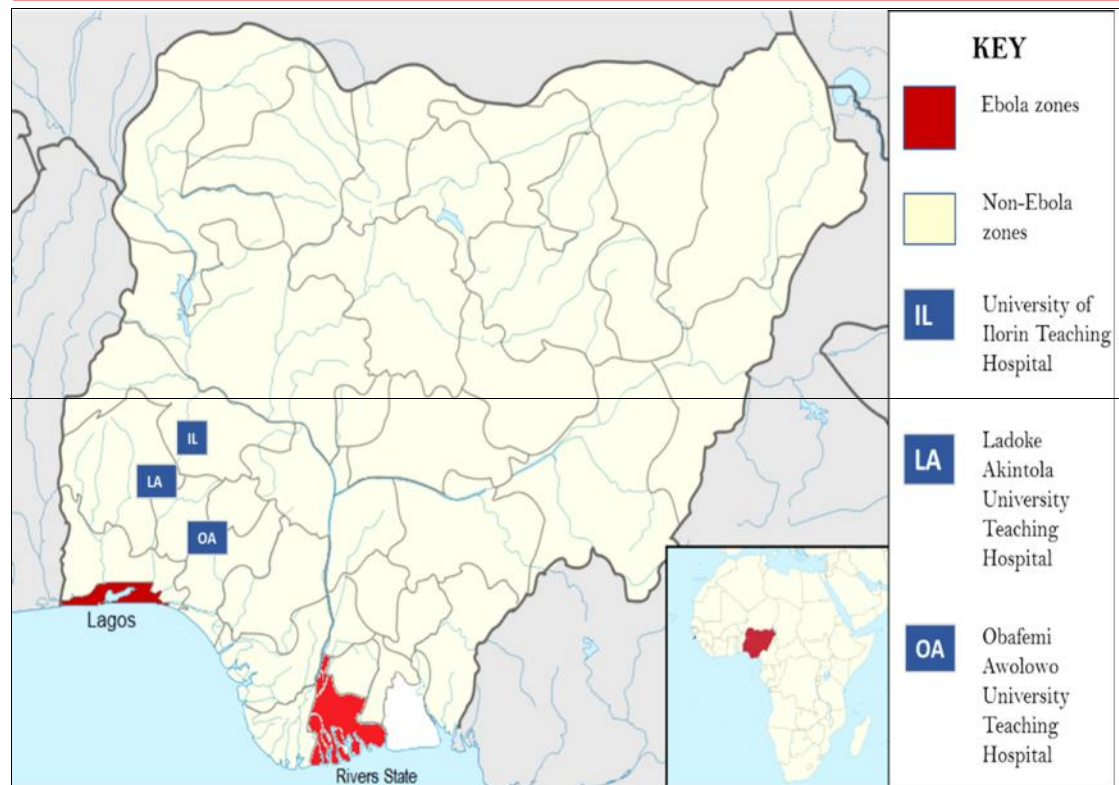
Incidentally, the initial signs of the disease come with fever just like some other illnesses and is usually above 38.3-degree centigrade Hoenen, Groseth, Falzarano and Feldmann (2006) thereby masking the disease to appear mild at the onset. As a result, a number of doctors, nurses, and other

health workers were infected with the deadly virus during the last outbreak in Nigeria (WHO, 2015). As of 22 September 2014, it was confirmed that 20 cases and 8 deaths had occurred, as a result of the outbreak of the disease, four of which were health workers (WHO, 2014). A Consultant Endocrinologist who attended to the index case of the disease in the commercial city of Lagos eventually died, Ibeh (2014) while another doctor who treated another patient who had contact with the index case, also died in Nigeria's oil hub of Port-Harcourt (Cocks and Payne, 2014).

In addition to this, one of the nurses who attended to the index case was also infected with the deadly disease, bringing the total number of health workers infected with the disease during the 2014 outbreak in Nigeria to 11 out of the 20 reported cases (Fashina, et al. 2014). There is however indications that these incidences of infection of EVD from infected patients by health workers may affect the attitude of health workers towards patients especially when memories of these incidences come into their minds. This may inform negative attitudes in the minds of health workers towards patients which may lead to negative actions towards patients.

The theory of Reasoned Action developed by Fishbein and Ajzen in 1967 has attempted to explain the relationship between attitudes and behaviour within human action by predicting how people will behave based on their pre-existing attitudes and behavioural intentions (Gregory, 2011). Rogers et al.(2002) also argued that people's decision to engage in a particular behaviour will depend largely on the outcomes of engaging in such behaviour. Despite this, very few studies that have been conducted on Ebola virus disease among health workers in Nigeria (Centre for Public Policy Alternatives, 2014).

It is against this backdrop, that, this study therefore investigates the attitude of health workers towards patients as an aftermath of the outbreak of the deadly Ebola virus disease in the country.



**Figure 1:** Map of Nigeria Showing States with Ebola Cases (Lagos and Rivers State) and the Study area.

Source: [http://commons.wikimedia.org/wiki/File:Blank\\_Map-Africa.svg](http://commons.wikimedia.org/wiki/File:Blank_Map-Africa.svg)

**METHODS**

The study was conducted in three tertiary hospitals in Southwest Nigeria, they include: Obafemi Awolowo University Teaching Hospital, Ile-Ife, Ladoké Akintola University Teaching Hospital Ogbomosho and University of Ilorin Teaching hospital Ilorin. These hospitals were selected for the study because of large staff strength to suit the purpose of the research and also because the index case of the deadly disease came into the country through the Southwest region of the country in which the research is being conducted. 600 consenting participants were involved in the study cutting across a wide range of health workers including doctors, nurses, pharmacists, social workers, records staff, laboratory scientists, community health workers, porters, cleaners and drivers. The study employed a two-stage sampling method involving first, purposive sampling of the three

tertiary hospitals from Southwest region of Nigeria and thereafter, a random selection of 200 participants each from each hospital was done.

Primary data was retrieved through self-administered structured questionnaire that included both closed and open-ended questions. Each questionnaire contained questions relating to the socio-demographic characteristics of the participants, while questions relating to attitude of health workers towards patients was measured with questions designed in five-point Likert-scale format i.e. SA =5, A =4, UD =3 D=2, SD =1 where the least score a participant can have is 8 points while the highest is 40 points. Data retrieved from the field was analysed with the Statistical Package for the Social Science (SPSS 19.0) and were presented with table including frequencies and simple percentages.

**RESULTS**

**Table 1: Socio-Demographic Characteristics of Participants**

Socio-demographic Characteristics	Frequency	Percentage (%)
<b>Sex</b>		
Male	256	-42.7
Female	344	-52.3
<b>Total</b>	<b>600</b>	<b>-100</b>
<b>Age group (years)</b>		
18-45yrs	534	-89
46-60yrs	66	-11
<b>Total</b>	<b>600</b>	<b>-100</b>
<b>Religion</b>		
Christianity	498	-83
Islam	102	-17
<b>Total</b>	<b>600</b>	<b>-100</b>
<b>Ethnicity</b>		
Yoruba	548	-91
Others	52	-8.7
<b>Total</b>	<b>600</b>	<b>-100</b>
<b>Position/Designation</b>		
Doctors	132	-22
Nurses	194	-32.3
Pharmacists	16	-2.7
Social Workers	20	-3.3
Laboratory Scientists	40	-6.6
Community Health Workers	58	-9.6
Records	62	-10.3
Portals	32	-5.3
Others (Drivers, Cleaners etc.)	46	-7.6
<b>Total</b>	<b>600</b>	<b>-100</b>

Researchers' Survey, 2016

Social demographic factors in table 1 revealed that, the sample size was almost evenly distributed with male representing (52.3%) while female represented (42.7%). Majority (89.0%) of the participants are in the age

bracket of 18-45 years while (83.0%) are Christians and (17.0%) are Muslims. Majority (91.0%) are from the Yoruba tribe while only (8.7%) belong to another tribe. (66%) of the participants were Doctors, (32.3%) were Nurses, (2.7%) were Pharmacists, (3.3%) were social workers, and (6.6%) were Laboratory Scientists. Others include, (9.6%) who were Community Health Workers (10.3%) were from the Records department (5.3%) were Portals while (5.3%) represented other health workers like drivers, cleaners etc.

Table 2 shows the attitude of health workers in the studied population. As regards if health workers in the study suspect patients have EVD at first contact, (34.7%) disagreed while (26.0%) strongly agreed that health workers actually suspect that patients have EVD at first contact. On if health workers are sometimes afraid of patients, (48.0%) of the participants strongly agreed while only (25.7%) agreed with this opinion. Also on participants opinion whether health workers do not move close to patient when examining patients who are febrile for fear of contacting EVD, (36.7%) of the participants disagreed with this while (22.0%) agreed with this and (18.7%) strongly agreed to it.

Consequently, on whether health workers are harsh and irrational to patients, (39.3%) disagreed while (37.3%) strongly disagreed to it. On if health workers wear protective gloves while examining or attending to patients because of fear of contacting EVD, (55.7%) strongly agreed to this while (33.0%) and (10.0%) were undecided. On whether health workers do not empathize with patients as a result past experiences of health workers being infected of EVD by patients, (45.7%) strongly disagreed, (30.7%) disagreed while only (15.3%) were undecided.

Furthermore, on if health workers sometimes stereotype patients as having EVD, (29.7%) disagreed, (24.0%) agreed while (19.0%) of the participants in the study were undecided. Finally, on if Health workers are unwilling to be the first to attend to patient when they come to the hospital, (38.7%) disagreed while (36.7%) strongly disagreed although, (9.7%) of the participants also strongly agreed to this while (6.7%) were undecided.

Table 2: Attitude of Health Workers toward Patients as a Result of EVD Outbreak

Attitude (N=600)	SA	(A)	(UD)	(D)	(SD)
Health workers suspect patients have EVD at first contact	156(26.0)	130(21.0)	80(13.3)	208(34.7)	26(4.3)
Health workers are sometimes afraid of patients	144(25.7)	288(48.0)	20(3.3)	88(14.7)	50(8.3)
Health workers do not move close to patient when examining patients who are febrile for fear of contacting EVD	112(18.7)	134(22.0)	40(6.7)	220(36.7)	94(15.7)
Health workers are irrational and harsh to patients because of previous memories of health workers being infected by patients with EVD.	54(9.0)	14(2.3)	72(12.0)	236(39.3)	224(37.3)
Health workers wear protective gloves while examining or attending to patients for the fear of being infected with EVD.	334(55.7)	200(33.0)	60(10.0)	6(1.0)	0(0.0)
Health workers do not empathize with patient because of previous memories of health workers being infected by patients with EVD.	26(4.3)	24(4.0)	92(15.3)	274(45.7)	184(30.7)
Health workers sometimes stereotype patients as having EVD	30(5.0)	144[24.0]	114(19.0)	178(29.7)	134(22.3)
Health workers are unwilling to be the first to attend to patient when they come to the hospital in order not to contact EVD.	58(9.7)	50(8.3)	40(6.7)	232(38.7)	220(36.7)

Researchers’ Survey, 2016 Multiple responses N=600

Table 3 showed grading of attitude of health workers towards patients. The table revealed that, (47.3%) have negative attitude towards patients while (52.7%) of the participants have positive attitude towards patients.

Table 3: Grading of Attitude of Health Workers towards Patients

Scoring and grading of attitude	Frequency	Percentage (%)
Negative attitude =8-24	284	(47.3)
Positive Attitude =25-40	316	(52.7)
Total	600	(100.0)

Researchers’ Survey, 2016 Multiple responses

DISCUSSION

This study investigated the attitude of health workers in three tertiary hospitals in the south-western part of Nigeria towards patients as a result of the last outbreak of EVD in the country. The health workers that participated in the study included doctors, nurses, pharmacists, social worker, laboratory scientists, community health workers, records staff, portals, and others such as, drivers, cleaners, etc. All these health workers come into contact with patients hence this baseline study determines their preparedness towards EVD. Nurses followed by medical doctors were mostly represented in the study which is similar to previous study conducted by Olowokere, Abioye-Kuteyi, Adepoju and Aderogba (2015) in the same region.

Result showed that, more than half of the participants in the study have positive attitude towards patients. This is contrary to previous researches conducted on attitude of health workers towards patients by Abiodun (2011) Ibrahim et al (2014) and Inyang and Doubrapad

(2016) which suggests negative attitude of health workers towards patients. Result also showed that, although about one third of the participants in the study disagreed that health workers suspect that patients have EVD when they have a first contact with them, almost half of the participants agreed that health workers are actually afraid of patients when they come in contact with them because of fear of contacting EVD.

Furthermore, about two third of the participants in the study disagreed with the fact that, health workers do not move close to patient who are febrile when examining them, while over half of the participants strongly agreed with the fact that health workers wear protective gloves while examining or attending to patients which conforms with international best practices of health workers practicing universal precaution when attending to patients (WHO, 2017). In addition, while, about one third of the participants in the study disagreed with the fact that, health workers are unwilling to be the first to attend to patient when they come to the hospital, almost half of the participants disagreed with the opinion that health workers do not empathize with patients.

#### CONCLUSION AND RECOMMENDATION

The study investigated the attitude of health workers towards patients as an aftermath of the Ebola virus disease outbreak in Nigeria. The study was conducted in three Teaching hospitals in South-West Nigeria namely, Obafemi Awolowo University Teaching Hospital Ile-Ife, Ladoké Akintola University of Science and technology Teaching Hospital Ogbomoso and University of Ilorin Teaching Hospital, Ilorin. 600 participants were involved in the study, drawn through a two-staged sampling in which 200 participants were randomly selected in each hospital. Result showed that, more than half of the participants in the study have positive attitude towards patients. This is without prejudice to the fact that some health workers in the country were infected with EVD while caring for patients during the last outbreak of the disease in 2014. The study therefore recommends wider dissemination of adequate information on EVD among health workers in the country to ensure adequate knowledge of the disease by health

workers for safety and effective disease control and prevention. The study also recommends massive attitudinal change among health workers towards patients in the region.

#### REFERENCES

Abiodun, O.A (2011). Knowledge and Attitude Concerning Mental Health of Primary Health Care Workers in Nigeria. *International Journal of Social Psychiatry*. Vol 37, Issue 2. Available from: <http://journals.sagepub.com/doi/abs/10.1177/002076409103700206>. Accessed 21 June 2017.

Centers for Disease Control and Prevention (August 4, 2014). *2014 Ebola Virus Outbreak in West Africa*. Available from: <https://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/>. Accessed October 4 2016.

Center for Public Policy Alternatives (2014). *Study on the Ebola Virus Disease (EVD) Knowledge, Attitudes and Practices of Nigerians in Lagos State*, Center for Public Policy Alternatives.

Cocks, T., Payne, J (28 August 2014). *Doctor Dies of Ebola in Nigeria's Oil Hub Port- Harcourt*. Reuters, Canada. Pp 2. Accessed on 15 March 2016.

Daniel (2014). *Viral hemorrhagic fevers. Boca Raton*: CRC Press, Taylor & Francis Group. p. 444

Fashina, F.O., Shittu, A., Lazarus, D., Tomori, O., Simonsen, L., Viboud, C., Chowell, G (2014). Transmission Dynamics and Control of Ebola Virus Disease Outbreak in Nigeria. *Euro Surveillance*, 19(3): 1-7.

Gregory, S (2011). The Theories of Reasoned Action and Planned Behaviour Applied to Business Decisions: A Selective Annotated Bibliography. *Journal of New Business Ideas & Trends*. Vol 9 No 1. Available from: [http://jnbit.org/upload/JNBIT\\_Southey\\_2011\\_1.pdf](http://jnbit.org/upload/JNBIT_Southey_2011_1.pdf). Accessed 18/01/2018.

Hoenen, T., Groseth, A., Falzarano, D., Feldmann, H (2006). Ebola virus: unravelling pathogenesis to combat a deadly disease. *Trends in Molecular*

*Medicine* 12 (5): 206– 215.

[doi:10.1016/j.molmed.2006.03.006](https://doi.org/10.1016/j.molmed.2006.03.006).

PMID [16616875](https://pubmed.ncbi.nlm.nih.gov/16616875/).

Ibeh, N. (14 August 2014). *Ebola Outbreak in Nigeria*. Premium Times. Available at: [www.premiumtimesng.com/author/nnena-ibeh/page/17](http://www.premiumtimesng.com/author/nnena-ibeh/page/17). Accessed on 19 May 2016.

Ibrahim, L., Hadijia, I.S., Nguku, P., and Nsubuga, P. (2014). Health care workers' knowledge and attitude towards TB patients under Direct Observation of Treatment in Plateau state Nigeria, 2011. *Pan African Medical Journal* Vol 18 No 8. Available from: [https://www.researchgate.net/publication/267101461\\_Health\\_care\\_workers%27\\_knowledge\\_and\\_attitude\\_towards\\_TB\\_patients\\_under\\_Direct\\_Observation\\_of\\_Treatment\\_in\\_Plateau\\_state\\_Nigeria\\_2011](https://www.researchgate.net/publication/267101461_Health_care_workers%27_knowledge_and_attitude_towards_TB_patients_under_Direct_Observation_of_Treatment_in_Plateau_state_Nigeria_2011) Accessed 21 June 2017.

Inyang, M. P., and Doubrapade, W. (2016). The Inextricable Effect of Health Worker's Attitude on Primary Health Care Implementation in South-South Nigeria. *Public Health Research* 2016, 6(2): Pp 38-44. Available from: [www.sapub.org/global/showpaperpdf.aspx?doi=10.5923/j.phr.20160602.02](http://www.sapub.org/global/showpaperpdf.aspx?doi=10.5923/j.phr.20160602.02). Accessed 21 June 2017.

Nigeria Map Ebola (2014). *Map of Nigeria Showing Ebola Crisis States* (Lagos and Port-Harcourt). Available at: [http://commons.wikimedia.org/wiki/File:Blank\\_Map-Africa.svg](http://commons.wikimedia.org/wiki/File:Blank_Map-Africa.svg). Accessed on 8 June 2016.

Olowookere, S.A., Abioye-Kuteyi, E.A., Adepoju, O.K., Esan, O.T., Adeolu, T.M., Adeoye, T.K., Adepoju, A.A., Aderogba, A.T (2015). Knowledge, Attitude and Practice of Health Workers in a Tertiary Hospital in Ile-Ife, Nigeria, Towards Ebola Virus Disease. *Journal of Tropical Medicine*. Available from: <https://www.hindawi.com/journals/jtm/2015/431317/tab8/>. Accessed 20 June 2017.

Rogers G. M., Archibald, M., Morrison, D., Wilsdon, A., Wells, E., Hoppe, M., Nahom, D., Murowchick, E., (2002). "Teen Sexual Behaviour: Applicability of the Theory of Reasoned Action. *Journal of Marriage and Family* Vol 64 No 1.

Shears, P and O'Dempsey, Tim (2015) Ebola virus disease in Africa: epidemiology and nosocomial transmission. *Journal of Hospital Infection*, Vol 90, Issue 1, pp. 1-9. Available from: <http://www.sciencedirect.com/science/article/pii/S...> Accessed 18/1/2018.

World Health Organization (April 21, 2014). *Ebola Virus Disease outbreak in West Africa*. Available from: <http://www.who.int/ith/updates/20140421/en/>. Accessed October 3 2016.

World Health Organization (September, 2014). *Ebola Virus Disease Fact Sheet*. No 103. Available from: <http://www.who.int/mediacentre/factsheets/fs103/en/>. Accessed October 2 2016.

World Health Organization (October 20, 2014). *Nigeria is now free of Ebola virus transmission*. <http://www.who.int/mediacentre/news/ebola/20-october-2014/en/>. Accessed 21 June 2017.

World Health Organization (May 21, 2015). *Health worker Ebola infections in Guinea, Liberia and Sierra Leone*. Available from: [http://www.who.int/hrh/documents/21may2015\\_web\\_final.pdf](http://www.who.int/hrh/documents/21may2015_web_final.pdf). Accessed October 4 2016.

World Health Organization (May, 2017). *Frequently asked questions on Ebola virus disease*. Available from: <http://www.who.int/csr/disease/ebola/faq-ebola/en/>. Accessed 21 June 2017.