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Research Article

Knowledge, Attitude and Practice to Lassa Fever Virus among Shop Owners in 4 Community Markets in a Military Barrack in Kaduna State, Nigeria

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Abstract

The 'Lassa fever season' has lasted longer and generated more cases and deaths, than expected in Nigeria since 2017. A cross sectional study was designed to assess knowledge, attitude and practice of shop owners of 4 community markets in a Military Barrack in Kaduna State, Nigeria towards Lassa Fever Virus (LFV). Structured questionnaires were prepared and administered to 200 respondents by face to face interview. The questionnaire sought information on demographic characteristics of the respondents towards LFV awareness, knowledge, attitude and practice. Associations between demographic variables and categorized knowledge, attitude or practice scores were assessed using $\chi 2$ analysis. The mean knowledge score of respondents was 11.5 out of 16 items scored, 5.6 out of 9 for attitude and 5.2 out of 7 in the practice of the respondents towards LFV. Among the 200 respondents, 128 (64%) knew that LFV is a highly infectious viral disease and 153 (76.5%) knew it is found in rats. Also, 190 (95%) said they will go to the hospital if they have symptoms while, all of them agreed it is good to wash hands often. Respondents who had tertiary education were 0.2 times more likely to have good knowledge (OR = 0.23, 95% CI on OR = 0.13 - 0.54) than those with less education. Positive attitude towards Lassa Fever Virus improved with increase in the level of education, as respondents with no formal education were 2 times more likely to have negative attitude (OR = 2.04, 95% CI on OR = 0.66 - 6.33). Respondents in Community Market 4 (CM4) were 2.45 times more likely to have good practice than respondents in other Community Markets. The findings in this study show that the respondents have a good knowledge, positive attitude and practice towards Lassa Fever Virus nonetheless, awareness programs should continue, proper medical care should be provided for the sick and protective gears should be available to health care workers. Prevention of Lassa fever largely relies on community engagement and promoting hygienic conditions to discourage rodents in the surroundings.

Keywords: *Lassa Fever; Shop Owners; Community Market*

Introduction

Lassa fever, also known as Lassa haemorrhagic fever (LHF) with symptoms similar to those of Ebola virus disease, is endemic in most of West Africa (particularly Nigeria, Sierra Leone, Guinea and Liberia) and usually sparks a seasonal outbreak from December to March [1]. The ongoing 'Lassa fever season' has lasted longer and generated more cases and deaths, than expected. Lassa fever usually kills around 15 percent of those who develop severe cases whereas the case fatality rate being reported 2018 is above 50 percent. Since November 2015, Nigeria, Benin, Sierra Leone, Liberia and Togo have reported more than 300 cases of Lassa fever and 167 deaths. Nigeria has reported most cases: (272 cases and 149 deaths) followed by Benin (54 cases and 28 deaths), Liberia (7 cases, 3 deaths) while, Togo and Sierra Leone had 2 cases each. Two cases were reported in Europe through exportation- one each in Sweden and Germany [2,3].

Descriptions of the disease date from the 1950s. The virus was first described in 1969 from a case in the town of Lassa, in Borno State, Nigeria [4]. There are about 300,000 to 500,000 cases which result in 5,000 deaths a year [1].

The Lassa virus is a member of the *Arenaviridae* virus family. Many of those infected by the virus do not develop symptoms. When symptoms occur they typically include fever, weakness, headaches, vomiting, and muscle pains. Less commonly there may be bleeding

from the mouth or gastrointestinal tract. The risk of death once infected is about one percent and frequently occurs within 2 weeks of the onset of symptoms. About a quarter among those who survive may develop deafness [2,5].

Lassa virus is transmitted when the feces or urine of *Mastomys natalensis* (multimammate rat) access grain stores, or through inhalation of infectious material, or when broken skin and mucous membranes are directly exposed to infectious material. The virus may also be spread between humans through direct contact with the blood, feces, urine or other bodily secretions of a person infected with Lassa fever. Infection is in a persistent asymptomatic state in the rodents. The virus is excreted for up to 3 - 9 weeks in urine and up to 3 months in the semen of an infected person [3,6].

Diagnosis based on symptoms is difficult because diseases like Ebola, malaria, typhoid and yellow fever all present with similar symptoms [5]. Confirmation is by laboratory testing to detect the RNA virus, antibodies to the virus or the virus itself in cell culture. Molecular dating suggests that Lassa virus has been circulating in Nigeria for over a thousand years and in some other West African countries for hundreds of years [6]. Last year, genetic sequencing of the virus causing infections in Togo showed that this virus and one circulating in neighboring Benin represent a new lineage of the Lassa virus. An ELISA test for antigen and IgM antibodies will give 88% sensitivity and 90% specificity for the presence of the infection. Other laboratory findings in Lassa fever include lymphopenia, thrombocytopenia and elevated aspartate aminotransferase levels in the blood. Lassa fever virus can also be found in cerebrospinal fluid [7]. In West Africa, where Lassa is most prevalent, it is difficult for doctors to diagnose due to the absence of proper equipment to perform tests [8]. In cases presented with abdominal pain, the disease is often misdiagnosed as appendicitis and intussusception which may delay treatment with the antiviral ribavirin [9].

There is no approved vaccine available presently [4]. For now, prevention requires control of the *Mastomys* rodent population, so measures are limited to keeping rodents out of homes and food supplies, having a cat to hunt vermin, storing food in sealed containers as well as, maintaining effective personal hygiene. Protective gears should be used while in contact with an infected person. All persons suspected of Lassa fever infection should be admitted to isolation facilities and their body fluids and excreta properly disposed [9,10].

Treatment is directed at addressing dehydration and improving symptoms like fighting hypotension. The antiviral medication, ribavirin may be useful when given early but the drug is relatively expensive. Intravenous interferon therapy has also been used [4,11].

Presently, Nigeria, which is the traditional source of most Lassa cases, has an ongoing outbreak that has affected 23 states already. The high number of cases reported in Nigeria may be partly due to better preparedness, leading to better detection. Nigeria has learned from Ebola and has built better capacity to detect emerging outbreaks, including raising awareness of disease threats through stronger community engagement [12]. The wider outbreaks seen in West Africa may be due to increasing urbanization and climatic conditions favoring the rat. West Africa has enjoyed good rainfall since 2015 which has led to good crop yields and plentiful food for rodents [8].

Prognosis is usually bad as about 15 - 20% of hospitalized Lassa fever patients will die from the illness. The overall mortality rate is estimated to be 1%, but during epidemics, mortality can climb as high as 50%. The mortality rate is greater than 80% when it occurs in pregnant women especially during their third trimester as, fetal death occurs in all cases while abortion decreases the risk of death to the mother [5].

Materials and Methods

A cross sectional study was carried out in four community markets (CM) in a Military Barrack in Kaduna State, Nigeria. A structured questionnaire was designed and administered by face to face interview, to 200 shop owners within the study area between 1st and 20th November, 2017. Only shops selling foodstuffs were selected to examine their knowledge, attitude and practice relating to Lassa fever virus (LFV) and check food storage practices within the shops. Shops were selected by picking every other shop along major lines within the market under study. All shop owners were interviewed in Pigeon English language.

Shop owners that were unwilling to participate in the study were excluded. The options for the choice questions were “Yes”, “No” and “don’t know”. A marking scheme containing expected correct answers was prepared and used to mark and score the responses. “Don’t know” responses were considered as wrong answers. For each correct and incorrect answer, one and zero points were assigned respectively. There were five (5) sections in the questionnaire. Section A contained the demographic information of the respondent. Information

on respondents general awareness about Lassa fever was contained in section B, this had questions on how he/she heard about LFV, whether he/she knows where to go to if infected. Section C contained information about knowledge of LFV, which included questions on mode of transmission, symptoms and preventive measures. Questions on attitude of respondent towards LFV were provided in section D such as; knowingly consuming food stuffs contaminated with rodent feces, having direct contact with rodents and willingness to participate in LFV vaccine trials. Section E contained questions on practice of the respondents towards LFV. The study was explained to the respondents and questionnaires were completed anonymously.

The questionnaire reliability was assessed by the Cronbach's alpha method. Data were processed using SPSS Version 20 and analysed using χ^2 test of association and odds ratio; confidence intervals (95%) were calculated for odds ratios. Values of $p < 0.05$ were considered significant in the χ^2 analysis. Relationships between non-categorized scores were assessed using logistic regression analysis.

Results

Socio-demographic characteristics of respondents

The sampled respondents from the general population were 40 (20%) male and 160 (80%) female with age distribution of 30 - 40 years (22.5%), 41 - 50 years (54.5%), and above 50 years (23%). Of the 200 respondents that participated in the study, 68 (34%) were in CM1, 51 (25.5%) were in CM2, 42 (21%) were in CM3 while 39 (19.5%) were in CM4. Thirty-seven (18.5%) respondents were single while 163 (81.5%) were married. Grouping according to the number of people in the household, 1 - 2 people were 15 (7.5%), 3 - 4 people were 53 (26.5%) while households which had more than 5 people were 132 (66%). Based on the level of education of respondents, 20 (10%) had no formal education, 46 (23%) had primary school education, 119 (59.5%) had secondary school education and 15 (7.5%) had tertiary education (Table 1).

Characteristics	Frequency (N = 300)	Percentage (%)
Address		
CM1	68	34.0
CM2	51	25.5
CM3	42	21.0
CM4	39	19.5
Age		
30 - 40	45	22.5
41 -50	109	54.5
> 5 0	46	23.0
Sex		
Male	40	20.0
Female	160	80.0
Marital status		
Single	37	18.5
Married	163	81.5
Qualification		
No formal education	20	10.0
Primary	46	23.0
Secondary	119	59.5
Tertiary	15	7.5
Household No.		
1 - 2	15	7.5
3 - 4	53	26.5
> 5	132	66.0

Table 1: *Socio-demographic characteristics of respondents in 4 community markets (CM) in Kaduna State, Nigeria.*

Awareness of lassa fever virus (LFV)

One hundred and twenty (60%) respondents said that they had been visited by health officials while those not visited were 80 (40%). Majority of the respondents 193 (96.5%) were aware that LFV is transmitted through consumption of food stuffs contaminated with faeces and urine of infected rats. Television served as the main source of information on LFV as 126 (63%) usually followed news about the outbreak of LFV through the television/radio, 25 (12.5%) heard through the social media, 15 (7.5%) from newspapers/pamphlets while 34 (17%) from health officials (Table 2).

Awareness Item	Frequency (N = 200)	Percentage (%)
Health officers have talked to me about LFV		
Yes	120	60.0
No	80	40.0
LFV is transmitted through contact with infected body fluids		
Yes	193	96.5
No	7	3.5
How did you hear about LFV		
Television/Radio	126	63.0
Social media	25	12.5
Newspapers/pamphlets	15	7.5
Health officials	34	17.0

Table 2: *Respondents awareness of LFV in Kaduna.*

Knowledge of Lassa fever virus (LFV)

The mean knowledge score of respondents was 11.5 out of 16 items scored. Almost all 194 (97%) the respondent knew that LFV was ongoing in Nigeria, 135 (67.5%) knew that LFV does not kill all its victims, 184 (92%) had heard of persons who survived the disease and 178 (89%) knew the first case in Nigeria was not diagnosed in Lagos State. One hundred and twenty-eighty (64%) knew that LFV was a highly infectious viral disease while 153 (76.5%) knew the virus is found in rats. Also, 145 (72.5%) respondents knew that LFV could be spread by contact with food stuffs contaminated with feces and urine of infected rats. Ninety-six (48%) respondents knew that LFV is not transmitted to humans through insect bites while, 58 (29%) knew that human to human transmission was possible. Eighty-six of the respondents (43%) knew that family members of infected patients were at risk of LFV while, 92 (46%) knew the clinical signs of LFV. One hundred and twenty respondents (60%) believed that those involved in preparing corpse for burial are more at risk of becoming infected with LFV. Also, 105 (52.5%) knew there is no approved vaccination but 126 (63%) knew there is treatment for Lassa fever (Chart 1). The associations of demographic characteristic of respondents with categorized knowledge scores were assessed. Respondents who had formal education were less likely to have poor knowledge (OR = 0.21, 95% CI on OR 0.07 - 0.59) (Table 3). Level of knowledge on LFV improved with increased level of education.

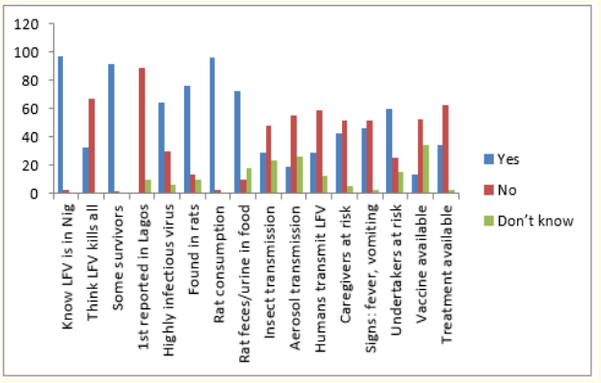

Chart 1: *Responses of respondents to knowledge of Lassa Fever Virus (LFV) in Kaduna.*

Variable	Poor knowledge	Good knowledge	P-value	Crude OR (95%CI)	Adjusted OR (95%CI) Poor	Adjusted OR (95%CI) Good
Age						
30 - 40	32 (71.1)	13 (28.9)	0.05	1.000		
41 - 50	25 (22.9)	84 (77.1)		3.97 (1.62 - 9.71)	0.37 (0.17 - 0.83)	2.64 (1.20 - 5.78)
>50	18 (39.1)	28 (60.9)		2.11 (0.87 - 5.10)	0.44 (0.19 - 0.99)	2.25 (1.00 - 5.09)
Qualification						
No formal edu	16 (80.0)	4 (20.0)	0.00	1.000		
Primary	23 (50.0)	23 (50.0)		0.07 (0.02 - 0.24)	9.94 (3.67 - 26.88)	0.10 (0.03 - 0.27)
Secondary	35 (29.4)	84 (70.6)		0.12 (0.03 - 0.43)	6.99 (2.53 - 19.29)	0.14 (0.05 - 0.39)
Tertiary	0 (0)	15 (100)		0.21 (0.07 - 0.59)	2.56 (1.23 - 4.16)	0.23 (0.13 - 0.54)
Household No.						
1 - 2	4 (26.7)	11 (73.3)	0.02	1.000		
3 - 4	18 (34.0)	35 (66.0)		0.29 (0.11 - 0.77)	2.97 (1.28 - 6.86)	0.33 (0.14 - 0.77)
> 5	64 (48.9)	68 (51.5)		0.70 (0.24 - 2.00)	1.41 (0.53 - 3.70)	0.70 (0.27 - 1.86)

Table 3: *Associations of demographic variables with knowledge of Lassa fever virus (LFV) by respondents in Kaduna, Kaduna state, Nigeria using logistic regression analysis.*

Attitude towards Lassa fever virus (LFV)

More than half of the respondents 116 (58%) said that, they did not allow members of their household to consume food stuffs that have been contaminated with rats' feces or urine, 118 (59%) said they avoided contact with people suspected of Lassa fever, 190 (95%) said that if they had symptoms like fever, bloody vomiting, bloody diarrhea, muscle fatigue and deafness they would report to the hospital while 121 (60.5%) respondents said they will avoid eating snacks that have been partially bitten by rats or not properly stored. Three-quarter (75%) of the respondents said they avoid unsanitary conditions and litter buildup in their surroundings while, 114 (57%) said they will not welcome a person who has recovered from Lassa fever in their homes. About three-quarter (72.5%) agreed that people who have had direct contact with Lassa fever patients should be separated from people who have not. Most of the respondents 160 (80%) agreed to avoid funeral rites that require direct contact with the corpse while, 129 (64.5%) affirmed that they would participate in a LFV vaccine trial (Chart 2). Categorized attitude scores showed an association with educational qualification of respondents and number of household (χ^2 = 14.196, df = 3, p = 0.000 and χ^2 = 18.273, df = 2, p = 0.000 respectively). Positive attitude towards LFV improved with increase in the level of education, as respondents with no formal education were more likely to have negative attitude (Table 4).

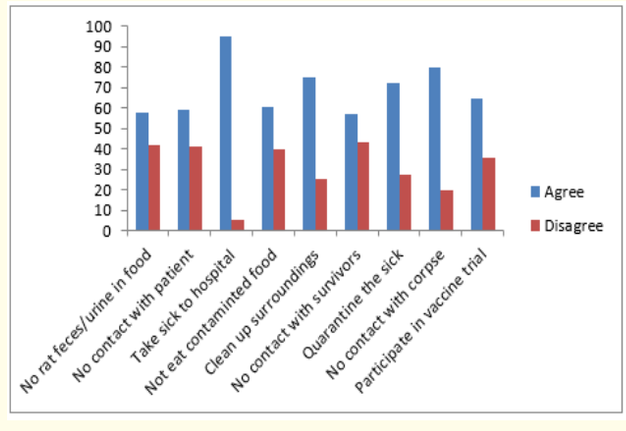

Chart 2: *Responses of respondents to knowledge of Lassa Fever Virus (LFV) in Kaduna.*

Variable	Negative attitude	Positive attitude	P-value	Crude OR (95%CI)	Adjusted OR (95%CI) Negative	Adjusted OR (95%CI) Positive
Address						
CM1	23 (33.8)	45 (66.2)	0.04	1.000		
CM2	19 (37.3)	32 (62.7)		5.66 (2.26 - 14.14)	0.19 (0.07 - 0.47)	5.14 (2.09 - 12.60)
CM3	18 (42.9)	24 (57.1)		8.12 (2.45 - 26.93)	0.12 (0.03 - 0.41)	7.81 (2.39 - 25.51)
CM4	22 (56.4)	17 (43.6)		4.16 (1.38 - 12.52)	0.24 (0.08 - 0.74)	4.04 (1.34 - 12.16)
Age						
30 - 40	24 (53.3)	21 (46.7)	0.01	1.000		
41 - 50	38 (34.9)	71 (65.1)		0.37 (0.12 - 1.11)	2.54 (0.86 - 7.52)	0.39 (0.13 - 1.16)
> 50	17 (37.0)	29 (63.0)		0.71 (0.22 - 2.29)	1.57 (0.50 - 4.92)	0.63 (0.20 - 1.99)
Qualification						
No formal edu	15 (75.0)	5 (25.0)	0.00	1.000		
Primary	16 (34.8)	30 (65.2)		0.46 (0.15 - 1.45)	2.04 (0.66 - 6.33)	0.48 (0.15 - 1.50)
Secondary	48 (40.3)	71 (59.7)		1.08 (0.28 - 4.11)	0.88 (0.24 - 3.25)	1.13 (0.30 - 4.17)
Tertiary	4 (26.7)	11 (73.3)		2.07 (0.83 - 5.13)	0.48 (0.19 - 1.18)	2.06 (0.84 - 5.04)
Household no.						
1 - 2	2 (13.3)	13 (86.7)	0.00	1.000		
3 - 4	17 (32.1)	36 (67.9)		0.22 (0.07 - 0.62)	4.34 (1.54 - 12.20)	0.23 (0.08 - 0.64)
> 5	79 (59.9)	53 (40.1)		0.61 (0.20 - 1.89)	1.59 (0.52 - 4.82)	0.62 (0.20 - 1.90)

Table 4: *Associations of demographic variables with attitude of Lassa fever by respondents in Kaduna, Kaduna State, Nigeria using logistic regression analysis.*

Practices towards Lassa fever

All 200 (100%) respondents affirmed that it was good to wash hands with soap and water as often as possible, avoid direct contact with dead rats and undertakers should always wear protective clothing. While, 165 (82.5%) said that they store food stuffs in sealed containers, 135 (67.5%) said they would remove rat feces from food stuffs and consume the food. Also, 131 (65.5%) said that they would not drink traditional herbs to treat Lassa fever. Most of the respondents 188 (94%) agreed that protective gear should be worn when nursing an infected person (Chart 3). The age group 41 - 50 years and households with fewer people (1 - 2) had higher acceptable practice scores than married respondents. Good practice increased with increase in the level of education as there was significant difference in the educational qualification characteristic of respondent, those with tertiary and secondary educational qualification had higher practice scores (χ^2 = 21.611, df = 3, p = 0.000). Also, the respondents from CM2 had the highest practice score, followed by those from CM3 and CM1 (χ^2 = 10.264, df = 3, p = 0.00). There was statistical significant association between the age groups (OR = 2.90, 95% CI on OR = 1.09 - 7.69) and marital status of respondents (OR = 0.89, 95% CI on OR = 0.38 - 2.07), with good practice observed with increase in the level of educational qualification (Table 5).

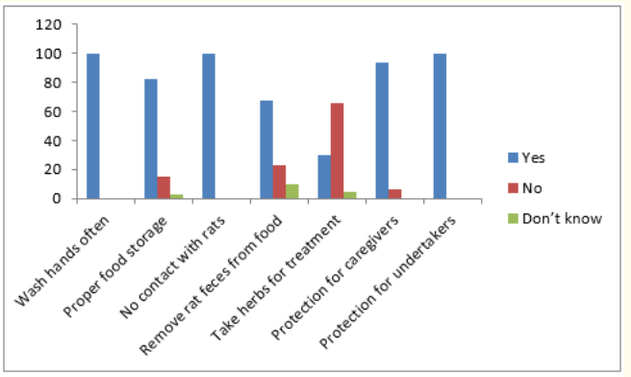

Chart 3: *Responses of respondents on practice towards LFV in Kaduna.*

Variable	Poor practice	Good practice	P-value	Crude OR (95%CI)	Adjusted OR (95%CI) Poor	Adjusted OR (95%CI) Good
Address						
CM1	23 (33.8)	45 (66.2)	0.00	1.000		
CM2	16 (31.4)	35 (68.4)		5.66 (0.17 - 1.82)	1.94 (0.66 - 5.68)	0.51 (0.17 - 1.50)
CM3	14 (33.3)	28 (66.7)		0.84 (0.20 - 3.48)	1.34 (0.35 - 5.07)	0.74 (0.19 - 2.82)
CM4	15 (38.5)	24 (61.5)		2.58 (0.42 - 15.71)	0.40 (0.07 - 2.34)	2.45 (0.42 - 14.09)
Age						
30 - 40	24 (53.3)	21 (46.7)	0.01	1.000		
41 - 50	31 (28.4)	78 (71.6)		2.90 (1.09 - 7.69)	0.37 (0.14 - 0.93)	2.68 (1.06 - 6.74)
> 50	23 (50.0)	23 (50.0)		3.20 (1.10 - 9.27)	0.27 (0.10 - 0.74)	3.63 (1.34 - 9.84)
Qualification						
No formal edu	12 (60.0)	8 (40.0)	0.00	1.000		
Primary	21 (45.7)	25 (54.7)		0.11 (0.03 - 0.39)	7.31 (2.43 - 21.92)	0.13 (0.04 - 0.41)
Secondary	45 (37.8)	74 (62.8)		0.17 (0.04 - 0.65)	4.66 (1.57 - 13.80)	0.21 (0.07 - 0.63)
Tertiary	2 (13.3)	13 (86.7)		0.58 (0.19 - 1.78)	1.27 (0.52 - 3.08)	0.78 (0.32 - 1.88)

Table 5: *Associations of demographic variables with practice of Lassa fever by respondents in Kaduna, Kaduna State, Nigeria using logistic regression analysis.*

Discussions

Overall, Lassa fever virus (LFV) awareness was high, based on the median correct responses for the 32 statements in the scored section of the KAP survey. At the same time, this survey revealed several important areas of concern as Nigeria sought to control the present ongoing LFV epidemic.

The findings in this report are subject to at least two main limitations. First, the selection of study area in Kaduna State was non-random. Second, a standardized form was used for the survey, but none of the responses was open-ended. Therefore, limited information was available beyond the binary agree or disagree responses. This Lassa fever virus KAP is believed to be the first survey conducted in the study area to assess the effectiveness of LFV messaging at the community level in Kaduna State.

In this study, education played a vital role in the level of knowledge, attitude and practice of the respondents towards LFV as, the respondents who had tertiary education scored higher than those in the other categories. This may be because the respondents in this group had access to various mass media on LFV as previous studies have shown that LFV thrived more in remote areas occupied by less educated populations lacking basic needs [2,5].

About three-quarters of the respondents knew that LFV is found in rats and transmitted through consumption of foodstuffs contaminated with rat feces and urine but less than a quarter of the respondents knew that inhalation was also a route of transmission. This is not an impressive result and shows that more awareness and sensitization programs on LFV need to be embarked on by the government and development partners.

The mean knowledge score in this study was 11.5 out of 16 and 74% of the respondents scored above average. This may be because this study was conducted in a more enlightened population (Military Barrack). Here, every shop owner visited said, they had access to television, radio or owned mobile telephone sets. These are the fastest routes of communication presently as shown by the number of respondents that had heard about LFV through these media.

Sixty percent of the respondents said that they have had visits from health officials recently. This shows that the health and sanitation department of the military hospital is performing its duties of regular inspection of the barracks. Weekend fatigues (environmental sanitation exercises) are enforced so, residents must clean up their homes and surroundings, store house-hold refuse in sanitary bags

or dust bins with tight-fitting covers to avoid infestation by rodents or dispose refuse properly at designated dump sites and not into the drainage system thereby controlling the population of rodents and stopping the transmission of Lassa fever virus [13]. Also, the military authority are responsible for the burial of their dead personnel therefore, trained military undertakers perform this act while observing universal safety precautions and comply with infection prevention and control measures when dealing with corpse as recommended by the WHO [5] thus, traditional burial customs observed by civilian populations are not practiced. This way, fewer people come in contact with the corpse and appropriate personal protective equipment like hand gloves, facemasks, goggles and overalls are worn when attending to corpses.

The average score for respondents attitude towards LFV was 5.6 out of 9 with 95% agreeing to seek prompt medical attention when sick or take their sick dependents to the hospital. This might be because there is a well-equipped military reference hospital with highly trained staff near the barracks as shown by Fisher-Hoch., *et al.* [14] that priority must be given to education of medical staff in developing countries and to guidelines for safe operation of hospitals to control LFV spread [15]. Also, medical treatments for military personnel and their dependents are free in military hospitals so, there is no fear of incurring huge medical bills [12].

All 4 community markets had electricity, pipe borne water, refuse disposal points and there were no bushes in their surroundings and so, 100% of the respondents had good practice towards hand washing and tidiness unlike in the study conducted in Edo state where a high percentage of people who lived in poor housing conditions were infected with LFV [13]. Since the military setting and training does not encourage personnel to have strong ties to religion and traditions, 65% of the respondents said they would not drink herbs to treat Lassa fever. There was an average score of 5.2 out of 7 in the practice of the respondents towards LFV.

Conclusion

Majority of the sampled population have good knowledge of the LFV, the mode of transmission and preventive measures. Most people said their first point of call for medical service would be the hospital if suspected to have LFV signs and some are willing to take part in LFV vaccine trial.

Recommendations

Sensitization of the general public on LFV and its mode of operations should continue through community awareness campaigns, print and electronic media. More emphasis should be placed on television, radio and social media since these are the main information media used by people to get news generally.

LFV test should be done on patients that present with febrile symptoms therefore, there is need for the government to ensure that all healthcare institutions have basic resources for the management of LFV as, only two hospitals in the country are presently equipped to handle LFV cases.

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