

Knowledge, Attitude and Prevention of Lassa fever among Primary School Teachers in Ondo State

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ABSTRACT

The study explained the knowledge, attitude and prevention of Lassa fever among primary school teachers in Ondo state. Lassa fever is viral haemorrhagic fever, an animal borne viral illness of 2-21 days incubation period. The signs and symptoms of Lassa fever include high fever, sore throat, general muscle pains, cough, vomiting, bloody diarrhoea, stomach pain, swollen face, eyes and neck, bleeding from orifices like nose, mouth, ears, eyes and other body openings. Lassa fever infection is associated with personal and environmental hygiene.

The research design for this study is descriptive cross sectional

Survey method. The population for the study comprises of all primary school teachers in Ondo state. The samples for the study were 300 primary school teachers in all the primary school in Ondo state using simple random sampling technique. The instrument for the study was self developed questionnaire with validity index of 0.87. The data collected were analyzed using descriptive statistics for all the research, questions and inferential statistics for all hypotheses and same tested at 0.05 level of significant. It was revealed that they have good knowledge of Lassa fever in terms of its courses, causes, signs and symptoms. The respondent had good knowledge towards the prevention of the disease. The respondent had good positive attitude towards precautionary measures and poor attitude towards fumigation of premises for prevention of Lassa fever. Lassa is associated with personal and environmental sanitation with the r-cal of 0.71 is greater than r-tab at 0.40 level of significance. It was equally recommended that there should be periodic fumigation of premises to combat the spread of Lassa fever.

Keywords: knowledge, attitude, prevention, fumigation, awareness, safety precautions.

BACKGROUND TO THE STUDY

Lassa fever is a viral haemorrhagic fever caused by Lassa fever virus with 2-21 days incubation period with symptoms similar to those of Ebola virus disease. Lassa fever can also manifested as an acute viral haemorrhagic fever, extremely virulent and often infectious (who, 2000) Lassa fever is an animal, borne or 200notic acute viral illness which is endemic in west Africa Nesion and More predominant in Nigeria since 1950s.Lassa fever is a viral disease spread by the multimate rat in a dirty and unkept environment (WHO, 2005).

Lassa fever is seasonal in nature and associated with poor personal environment hygiene(Lee et. al,2011)the signs and synptoms to identify a patient with Lassa fever include high fever, sore throat, general muscle pains, cough, vomiting, bloody diarrhoea, stomach pain, swollen face, eyes and neck, bleeding from orifices like nose, mouth, ears, eyes and other body openings.

Many of those infected by the is a major public health challenge in West Africa (Tobin et. al 2013).

Statement of Problem

The knowledge about Lassa fever ought to have been increased among Ondo state residents because the disease is endemic in some states of the federation where Ondo state is chief. Despite series of outbreak in the state,the knowledge and attitude of primary school teachers towards prevention of Lassa fever could not be ascertained because they are the nation builders and closest to the people at the grassroot. The prevalence of Lassa fever disease throughout the various social classes in the state is on the increase.

In some cases of severe Lassa fever where patients will be vomiting profusely, accompanied with bloody diarrhoea, the attitude of some health care workers towards patients at

this critical period was alarming as if they are deficient in knowledge about Lassa fever likewise the family members and other stakeholders in the community.

Lassa fever is seasonal in nature and associated with poor personal and environmental hygiene. The disease suppose to have been things of the past if necessary precautionary measures were put in place like avoidance of rats in our premises, proper hygiene and adequate cooking and covering of our food and regular fumigation of our premises. Despite various strategies and techniques put in place by various tiers of government to get rid of this disease it is on increase. Based on the background of this study, there is need for this study to ascertain the knowledge, attitude and awareness of primary school teachers in Ondo State towards the prevention of Lassa fever disease.

Purpose of the Study

The purpose of the study is to investigate the knowledge, attitude and awareness of primary school teachers towards the prevention of Lassa fever in Ondo State. The study is also designed to know if there is any association between environmental hygiene and personal hygiene and Lassa fever infection.

Research Questions

The following research questions were generated to guide the study:

1. What is the level of knowledge of respondents about Lassa fever disease?
2. What is the level of knowledge of respondents about the causative agent of Lassa fever disease?
3. What is the Level of awareness of the respondents about the safety precautionary measures towards prevention of Lassa fever disease?
4. What are the attitudes of the respondents towards prevention of Lassa fever disease?

5. What are the attitudes of health care workers towards Lassa fever patients?

Research Hypotheses

The following hypotheses were formulated to guide the study and same tested at 0.05 level of significance:

1. There is no significant relationship between lassa fever and environmental/ personal hygiene
2. There is no significant difference in the knowledge of Lassa fever among the respondents regarding their level of education

METHODOLOGY

The research design for this study is cross sectional descriptive survey. The population for the study were all primary school teachers in Ondo state public primary schools. The sample for the study comprises of three hundred primary school teachers in Ondo state. The sampling techniques for this study was multi-stage sampling techniques. Stage one of the multi-stage sampling technique involved the grouping the entire state into three senatorial district. Stage two involved the simple random sampling technique to select five primary school in each of the senatorial district. Stage three involved the selection of twenty (20) primary school teachers using simple random sampling technique by balloting without replacement. The instrument for the study is a self developed questionnaire tagged knowledge, attitude and awareness of primary school teachers towards prevention of Lassa fever in Ondo state questionnaire. The instrument was subjected to face, content and construct validities. The reliability of the instrument was established and found to be 0.87. The data collected were analyzed using descriptive statistics for all the research questions and inferential statistics for the research hypotheses. All the hypotheses were tested at 0.05 level of significance.

RESULTS AND FINDINGS

Table1: Items on knowledge about lassa fever

knowledge about lassa fever	TRUE	FALSE
persistent high fever	270 (90)	30 (10)
sore throat	250 (83.3)	50 (17.7)
general muscle pain	280 (96.7)	20 (3.3)
cough	220 (73.3)	80 (26.7)
vomiting	240 (80)	60 (20)
bloody diarrhoea	265 (88.5)	35 (11.7)
stomach pain and headache	280 (93.3)	20 (6.7)
bleeding from nose,eyes,mouth and other opening in the body	290 (96.6)	10 (3.4)
swollen face ,neck and eyes	160 (53.3)	140 (46.7)

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The result from table one showed that the respondents had good knowledge about the signs and symptoms of Lassa fever. The respondents knowledge on the signs and symptoms of Lassa fever include persistent high

fever 90%, sore throat 83.3%, general muscle pains 96.7% cough 73.3%, vomiting 80%, bloody diarrhoea 88.3%, stomach pain and headache 93.3%, bleeding from body orifice with 96.6%.

Table2: Items on knowledge about the causative agent of lassa fever

knowledge about causative agent	TRUE	FALSE
All forms of rat causes lassa fever	280 (93.3)	20 (6.7)
rat that have many breast	180 (60)	120 (40)
urine of rats contaminating food	210 (70)	90 (30)
lassa fever is a viral disease	290 (96.6)	10 (3.4)
incubation period of lassa fever is 2 - 21 days	200 (66.6)	100 (33.4)

The result from table two revealed that the knowledge of the respondents on the causative agent of Lassa fever ranges from 66.6% on

incubation period of the Lassa fever as a viral infection of 96.6%.

Table3: Items on awareness of safety precautionary measures towards prevention of lassa fever

Awareness of safety precaution	TRUE	FALSE
All food should be covered	290 (96.6)	10 (3.4)
Dirty environment should be avoided	265 (98.3)	05 (17)
All fruits should be washed before eating them	250 (83.3)	50 (16.7)
Regular hand washing should be encouraged	295 (98.3)	05 (1.7)
Regular use of hand sanitizer after visiting the toilet or holding person	280 (93.3)	20 (16.7)

Table 3 revealed that the respondents were aware of the safety precautionary measures towards the prevention of Lassa fever with items on the variables like all food should be covered (96.6%), Dirty environments should be avoided

(98.3%), Should be washed before eating them (83.3%), Regular hand washing should be encouraged (98.3%), and regular use of hand sanitizer after visiting toilet or holding person with 93.3%.

Table4: Attitude towards prevention

Attitude towards prevention	SA	A	SD	D	X	CX
Regular use of protective hand glove by the health care provider	200 (66.7)	60 (20)	25 (8.3)	15 (5)	3.6	2.5
Use of safety injection box	250 (83.3)	15 (5)	15 (5)	20 (6.7)	3.7	
Proper disposal of waste should be encouraged	220 (73.3)	60 (20)	10 (3.3)	10 (3.3)	3.6	
Rats and other rodents should be eliminated	250(83.3)	15(5)	15(5)	20(6.7)	3.7	
Periodic fumigation of our environment should be encouraged	50(16.7)	20(6.7)	150(50)	80(26.7)	2.1	
Proper use of face mask to prevent respiratory diseases	45(15)	25(8.3)	180(60)	50(16.7)	2.2	
GRAND MEAN SCORE /CRITERION MEAN SCORE					3.1	2.5
Overall decision; Positive attitude						

Table 4 revealed that the attitude of the respondent towards prevention of Lassa fever was positive in almost all the items as follows: regular use of protective hand glove by the health care provider with mean score of 3.5, use of safety injection box with mean score of 3.9, proper disposal of waste should be encouraged with mean score of 3.6, and the mean score of 3.7 for rats and other rodents should be eliminated. Above all, the mean score of items like periodic fumigation of our environments

should be encouraged and mean score of 2.1, which is below the criterion mean score of 2.5, likewise items on proper use of face masks to prevent respiratory disease had had a mean score of 2.2, which is below the criterion mean score. This implies that respondents had positive attitude towards those items and negative attitude towards two items. The overall result showed that the grand mean score is 3.2, which is above the criterion meanscore of 2.5.

Table5: Attitude of health workers towards Lassa fever patient

Attitude of health workers towards Lassa fever patient	SA	A	SD	D	X	CX
Health care workers are not friendly to Lassa	55(18.3)	85(28.3)	140(46.6)	20(6.7)	2.6	2.5

fever patient						
Health workers are temperamental to Lassa fever patient	125(41.7)	45(15)	100(33.3)	30(10)	2.9	
Health workers usually dressed like ghost when attending to Lassa fever patient	200(66.7)	30(10)	40(13.3)	30(10)	3.3	
There is gross evidence of discrimination and stigmatization of Lassa fever patient	220(73.3)	40(13.3)	20(6.7)	20(6.7)	3.5	
Impaired integrity and personal conduct of health workers to Lassa fever patient	110(36.7)	90(30)	60(20)	40(13.3)	2.9	
Impaired equity in access of lassa fever patient among health workers	180(60)	70(23.3)	30(10)	20(6.7)	3.4	
GRAND MEAN SCORE /CRITERION MEAN SCORE					3.1	2.5
Overall decision; Positive attitude						

Table 5 revealed that the attitude of health care workers towards Lassa fever patients was positive with the grand mean score of 3.1 which is above criterion mean score of 2.5.

Table6: Relationship between Lassa fever and personal/environmental hygiene

Relationship btw Lassa fever and hygiene	N	SS	DF	MS	X	SD	Std Error	r-cal	r-tab
Lassa fever disease	300	82.44	298	10.24	20.82	4.92	0.51	0.71	0.40
Personal/environmental hygiene	300	157.35	298	6.25	21.78	5.43	1.05		
Total					21.03	5.18	0.46		

Table7: Summary of ANOVA showing knowledge of Lassa fever and their level of education

Variable	SS	Df	MS	f-cal	f-tab	P	Remarks
Btw group	82.44	4	10.24	4.55	1.59	0.05	Significant
Within group		296	2.25				
	239.79	300					

Table 7 shows that $[F(4,296)=4.55; P<0.05$ greater than F-tab of 1.59. Therefore, hypothesis two is rejected by implication there is significant difference in the level of education of the respondents towards prevention of Lassa fever. The primary school teachers with higher education had better knowledge towards prevention of Lassa fever and puts into consideration significant measures in the safety precautions towards prevention of Lassa fever than the primary school teachers with lower education like grade II and NCE.

DISCUSSION OF FINDINGS

The study examined the knowledge, attitude and prevention of Lassa fever among primary school teachers in Ondo state. The study revealed that majority of the respondents had good knowledge about the course, causes, causative agent, signs and symptoms of Lassa fever. About 90% of the respondents had good knowledge about the signs and symptoms of Lassa fever like persistent high fever. This implies that about 10% of the respondents had no knowledge about Lassa fever. This study is in conformity with earlier studies conducted by Tobin et.all (2013) and Agantem (2017) where the respondents had good knowledge about Lassa fever and its prevention. The consistency

in this study may perhaps be as a result of their level of education and Information communication technology (ICT) compliance in quest for knowledge.

The study revealed further that the respondents were aware of the safety precautionary measures towards prevention of Lassa fever. This is also in agreement with the study conducted by Hidiroglu metal (2012) on knowledge and attitude of health care workers in Umraniye, Turkey where the respondents had good awareness of safety precautionary measures towards prevention of Lassa fever. It is worthy of note that the present study negate the study conducted by Kakade (2012) on knowledge and practices regarding prevention of dengue fever among the junior health care workers working in the primary health centres of Belgium Taluka where the respondents were not aware of safety precautionary measures towards prevention of Lassa fever and they had poor knowledge of Lassa fever. The variability in the may perhaps due to variation in their level of education, geographical location and their level of exposure. Though the junior health care workers had intermediate level of education for low-middle cadre health care givers but teachers were well equipped with knowledge based

training which accounts for the variation in the study population.

The study revealed further that Lassa fever is associated with poor personal and environmental hygiene. This present study is in conformity with the documentation of WHO (2000) and WHO (2005) where Lassa fever was traced to those live in rural resource setting, dirty environment and unkept surroundings. The study revealed that the respondents had good attitude towards prevention of Lassa fever like the use of regular protective hand gloves, use of safety injection box and proper disposal of waste. The respondents had poor attitude towards fumigation of premises which is capable of preventing the spread of Lassa fever. The respondents had poor attitude towards the regular use of face masks to prevent respiratory diseases. The study support the study conducted by Agantem (2017) where the junior health care workers had poor knowledge of the disease and infection control techniques factors to hospital acquired Lassa fever infection. Their poor knowledge in the use of protective hand gloves and face mask account for the further spread of the disease.

In conclusion, the study revealed that Lassa fever is associated with level of education and other socio demographic variables of the respondents. Respondents with high level of education, high social class and stable income may not contact Lassa fever due to high level of maturity, Integrity and efficiency in the prevention of Lassa fever as affirmed by (Bausch metal 2001). This is also in conformity with this present study.

CONCLUSION

The evaluation of the present study found clear evidence that the primary school teachers had a Good knowledge, attitude and prevention of Lassa fever in ondo state. It was also concluded that their is positive correlation between personal/environmental hygiene and Lassa fever. Based on the findings of this study,it was therefore concluded that Lassa fever could be prevented through adequate personal/environmental sanitation, regular fumigation of premises, zero tolerance of rodents and strict compliance on safety precautionary measures.

RECOMMENDATIONS

In view of the findings of this study, the following recommendations are made.

- There should be more advocacy programme to sensitive the public on the need to prevention of Lassa fever in our premises.
- Regular and periodic fumigation should be stressed
- Regular use of face masks should be emphasized
- Reorientation and positive attitude towards the prevention of Lassa fever should be emphasized.
- There should be good adherence to standard precautions and infection prevention and control.

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