

## Original Article

### **AWARENESS ABOUT EBOLA VIRUS IN BHAUDDIN ZAKARIYA UNIVERSITY, MULTAN, PAKISTAN**

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#### **ABSTRACT**

Ebola virus disease has been a severe threat to human beings lately. It is caused by Filoviridae family discovered in 1976 its symptoms include fever and also it affects the liver and kidney etc. To check out the knowledge about this lethal disease among students from Bahauddin Zakariya University Multan a survey was being conducted in different departments of the University those departments were from the institute of Social Sciences, life sciences and Computing institute and institute of Banking and finance. The results of the survey show that overall knowledge about EVD was low among students but from these institutes life sciences has shown better percentage of knowledge from the other two institutes.

#### **1. INTRODUCTION**

Ebola virus has risen to the world as biggest threat recently. The virus has been identified from 1976 and it had main outburst in West African countries [1]. Ebola virus has relation with the Filoviridae family. Ebola virus has caused severe type of viral hemorrhagic fever while having a high death rate [4]. The virus has its effect on the humans and also on the non-human, leading to the high level of hemorrhagic fever syndrome.

This is being well attributed with symptoms like focal necrosis of liver, kidney and spleen diathesis, fulminant shock resulting in expiring of a patient with death rate up to 90% [1]. The fever could be due to any of these five strains of the *Filoviridae* family: *Zaire ebolavirus*, *Sudan ebolavirus*, *Côte d'Ivoire ebolavirus*, *Bundibugyo ebolavirus* and *Reston ebolavirus* [3]. The virus is believed to be transferred through bats, or animals trade from one country to another. Ebola is a highest pathogenic virus and it had become the cause of an increasing number of outbreaks in the central Africa recently in the past decade and is now present in the West Africa [5]. As we know the Ebola virus is mainly present in African countries. There was outbreak in Africa of EBV in 2014-2015 the largest in history of

Africa with over all 28646 cases being reported and 11000 were reported death at that time [2]. In the mid of August 2014, the present survey being held, Sierra Leone had recorded almost 730 confirmed cases of Ebola virus [2]. As there is trade of animals between different countries the infected animals can affect the unaffected in other countries.

#### **2. MATERIALS AND METHODS**

This survey was conducted in the Bahauddin Zakariya University Multan. It was conducted in different departments of the university during the month of January in 2019. There were total eight departments from where survey was conducted. There were three departments from the science faculty, which include Department of Biotechnology, Zoology and pharmacy. Two departments were from social sciences which include sociology and psychology and two departments were from computing institute including computer science and IT. One was institute of banking and finance. There were total 200 questionnaires, 25 interviews were being conducted from one department regardless of their semester. Of these 25 survey from each department 13 surveys were conducted from male students and 12 surveys from female students.

The questions to be conducted for survey were designed with the help of supervisor DR. Muhammad Imran Qadir the questionnaire is given below in the (Table 1)

**Table 1:** Questionnaire about Awareness about Ebola

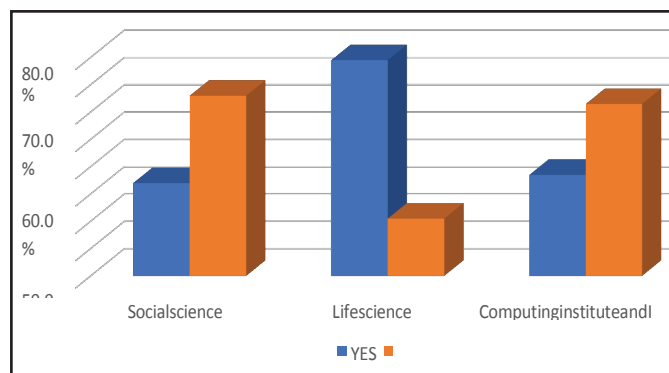
S. No	Questions
1	Do you know about EBOLA ?
2	Do you know the cause of EBOLA?
3	Do you have knowledge about the mode of transmission of EBOLA?
4	Do you know sweat of an infected person can infect you?
5	Do you know saliva of an infected person can infect you?
6	Have you knowledge about sign and symptoms of EBOLA
7	Do you know rash, fever and severe headache etc. are symptoms of EBOLA?
8	Do you have knowledge about EBOLA prevention ?
9	Do early treatment prevent further spread of EBOLA within household?
10	Do you think health facility can cure the EBOLA infected person

### 3. RESULTS

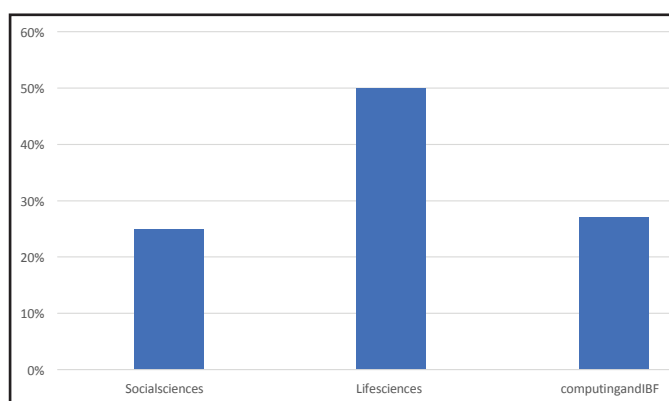
The results are calculated from the answers being given by the students from different departments. I decided to elaborate the results of four questions from the questionnaire.

#### 3.1 Knowledge about the Ebola

When asked about the name of virus EBOLA from students from institute of social sciences in which there were two departments sociology and psychology there were 50 survey interviews was conducted from which 33 students had never heard about the EBOLA while 17 students said YES. The results from life science which included department of Biotechnology, Pharmacy, and Zoology from these 75 total surveys interviews were being conducted (Figure 1) From here 59 students answered yes mean they had heard about the name of EBOLA while 16 students said they did not hear about the Ebola. While total 75 surveys interview held in the Institute of banking and finance and institute of computing in these 28 students said YES while 47 said NO. (Figure 2)



**Fig. 1:** Awareness on Knowledge of Ebola



**Fig. 2:** Overall knowledge about Ebola among institutes

#### 3.2 Mode of Transmission

The mode of transmission is an important aspect for someone if want to save himself or herself from the viral transmission. When questions about transmission of virus were surveyed from Social sciences where total 50 were conducted, 15 students said Yes and 35 said NO that they do not know. When same interviews were conducted from the departments of life sciences the results were little bit different from the social sciences from total 75 interviews 42 students said YES about questions asked about mode of transmission and 33 students replied in negative. From computing institute and institute of banking and finance total 75 interviews were conducted 17 students said YES and 58 students said No. The results are shown in the (Figure 3) The mode of transmission is an important aspect for someone if want to save himself or herself from the viral transmission. When questions about transmission of virus were surveyed from Social sciences where total 50 were conducted, 15 students said Yes and 35 said NO that they do not know. When same interviews were conducted from the departments of life sciences the results were little bit different from the social sciences from total 75 interviews 42 students said YES about questions asked about mode of transmission and 33 students replied in negative. From computing from the

institute and institute of banking and finance total 75 interviews were conducted 17 students said YES and 58 students said No. (Figure 3).

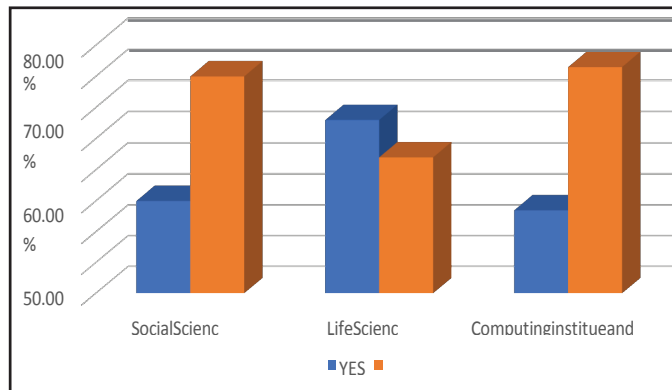


Fig. 3: Awareness about Mode of Transmission

### 3.3 Prevention from Ebola

From social sciences total 50 were conducted 12 respondents replied in positive while 38 replied in negative about the sign and symptoms of Ebola virus disease. From life sciences total 75 surveys were conducted, 36 students said YES while 39 said NO. From computing institute and IBF there were total 75 respondents, from those 17 said YES while 58 replied negative. (Figure 3). From the social sciences 50 interviews were taken only 6 said YES about question of prevention while 44 said NO. From life sciences there were 75 surveys conducted from these 27 replied in positive while 48 replied in negative. From computing institute and IBF there were 75 interviews were taken from these 19 said YES while 56 said NO (Figure 4).

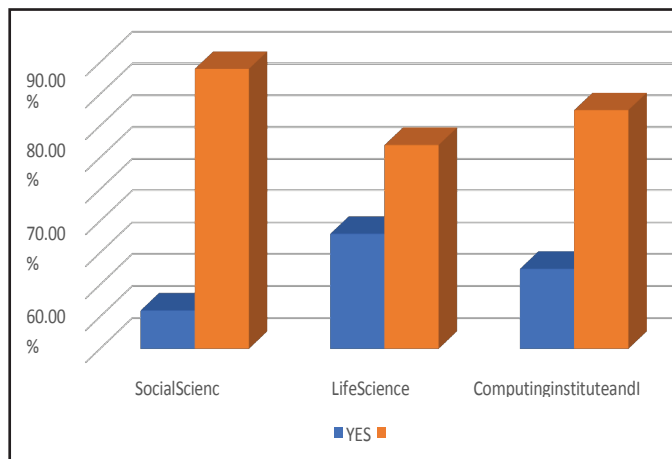


Fig. 4: Awareness about Prevention from Ebola

### 3.4 Sign and Symptoms

From social sciences total 50 were conducted 12 respondents replied in positive while 38 replied in negative about the sign and symptoms of Ebola virus disease. From life sciences total 75 surveys were conducted, 36 students said YES while 39

said NO. From computing institute and IBF there were total 75 respondents, from those 17 said YES while 58 replied negative (Figure 5).

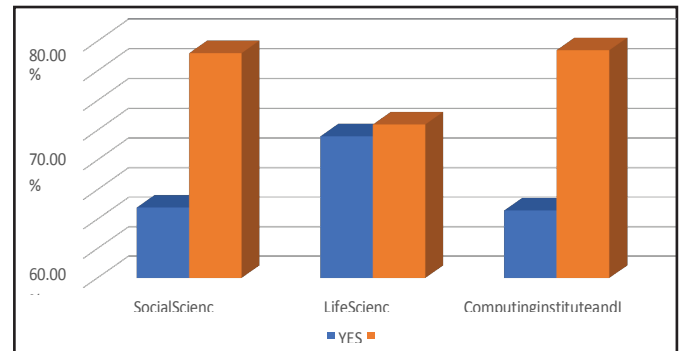


Fig. 5: Awareness about Sign and symptoms

## 4. DISCUSSION

From the findings of this survey which was conducted in different departments of the Bahauddin Zakariya University the knowledge about the EBD was overall low from the but among the institutes selected students from the life sciences institute had more knowledge from the other institutes from where survey was conducted. The social sciences had 25% of overall knowledge, life sciences had 50% overall knowledge and computing and IBF had 27% of overall knowledge. While from the other six questions from the survey students had average knowledge. From this survey one thing is very clear students need awareness about this deadly disease this could be done by conducting awareness seminar throughout the university or they could be given lectures about EBD during their course studies.

Table 2: Awareness about the remaining questions

S. No	Questions	YES	NO
1.	Do you Know the cause of Ebola?	27.5%	72.5%
2.	Do you know sweat of an infected person can infect you?	56.5%	53.5%
3.	Do you know saliva of an infected person can infect you?	68%	32%
4.	Do you have knowledge about sign and symptoms of Ebola?	36%	64%
5.	Does early treatment prevent further spread of Ebola within household?	47%	53%
6.	Do you think health facility can cure the Ebola infected person?	48.5%	51.5%

## 5. CONCLUSION

From this survey I concluded that knowledge about viral disease is very low so the authorities from the health department need to take this serious and spread awareness not only in University but in every sector where people can get affected from the disease.

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## REFERENCES

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- [1] Gebre Y, Gebre T, Peters A. The Ebola virus: a review of progress and development in research. *Asian Pacific Journal of Tropical Biomedicine*. 2014 Dec 1;4(12):928-36.
- [2] Jalloh MF, Sengeh P, Monasch R, Jalloh MB, DeLuca N, Dyson M, Gofa S, Sakurai Y, Conteh L, Sesay S, Brown V. National survey of Ebola-related knowledge, attitudes and practices before the outbreak peak in Sierra Leone: August 2014. *BMJ global health*. 2017 Dec 1;2(4).
- [3] Rajak H, Jain DK, Singh A, Sharma AK, Dixit A. Ebola virus disease: past, present and future. *Asian Pacific Journal of Tropical Biomedicine*. 2015 May 1;5(5):337-43.
- [4] Leroy EM, Epelboin A, Mondonge V, Pourrut X, Gonzalez JP, Muyembe-Tamfum JJ, Formenty P. Human Ebola outbreak resulting from direct exposure to fruit bats in Luebo, Democratic Republic of Congo, 2007. *Vector-borne and zoonotic diseases*. 2009 Dec 1;9(6):723-8.
- [5] Sousa ZL. Key features of Ebola hemorrhagic fever: a review. *Asian Pacific Journal of Tropical Biomedicine*. 2014 Nov 1;4(11):841-4.