"A Descriptive Study to Assess the Knowledge Regarding Ebola Virus Disease among Nursing Students in Selected College of Nursing, Haridwar, Uttarakhand in a View to Develop Information Booklet"

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Abstract

One of the true tests of headship is the skill to identify a problem before it becomes an emergency. Ebola virus also called Ebola hemorrhagic fever is rare but fatal illness. Ebola is named after the Ebola River in Zaire. It earliest emerged in Sudan and Zaire. These viruses are to be found in sun- Saharan Africa. This spreads through human to human transmission. It is transmitted to human population from wild animals such as fruit bats, chimpanzees, and monkeys. Often blood or body fluids of infected animals contains this virus and contact with it makes human vulnerable to Ebola virus disease (EVD). No vaccine as such available to combat this deadly disease. On the other hand, early detection of case and symptomatic treatment aid in fast recovery. The aim of the study was (1) to assess the knowledge regarding Ebola virus among nursing students, (2) to find association between knowledge score and demographic characteristics, and (3) to develop an information booklet on EVD based on knowledge of nursing students. Quantitative approach and descriptive design were used in the study. The study was conducted in Arihant College of Nursing, Haridwar. Convenient sampling technique was used to collect data from 60 subjects. Based on findings of the study, it was concluded that the mean knowledge score was 07.42 ± 2.28. A majority of subjects, 54 (90%) were having poor knowledge and 6 (10%) were having average knowledge regarding EVD. No subjects were having good knowledge regarding EVD. This study concluded that there is a need of upgrading knowledge and awareness regarding EVD among nursing students. Although it is not a disease of Asian region, chances of international spread are always there.

Keywords: Assess, Knowledge, Ebola virus, Students

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Introduction

All human organisms want to be vigorous and healthy. Creature attention has greatly twisted toward his health in recent times. Nowadays, people feel responsible for their physical and mental health. But still environmental and ecological imbalance, pollution, increasing population, malnutrition, food contamination, unhealthy food, and unhealthy lifestyle are affecting the peoples.

The WHO in its foundation states that, it is the fundamental right of all human being to enjoy the highest achievable standard of health, but some countries are so underdeveloped that they have very poor Community Health infrastructure and any outbreak of communicable disease in such countries take the outline of huge epidemic.[1]

India faces the challenge of a wide range of infectious diseases. Every fifth new tuberculosis case in the world lives in the Indian subcontinent. Japanese Encephalitis is present in many areas of India and has caused serious epidemics in recent years. India has been less severely affected by the HIV epidemic than many other countries, despite early predictions of disaster, but still has almost three million people living with the virus.[2]

The source of Ebola epidemic outbreak is always in the underdeveloped countries of West Africa such as Congo, Sudan, Nigeria, and Mali. Ebola Virus was first discovered in 1976 as the causative agent of major outbreak of hemorrhagic fever in Democratic Republic of Congo and Sudan. Ebola viral disease (EVD), also known as Ebola hemorrhagic fever, is a infectious viral hemorrhagic fever condition in humans, monkeys, gorillas, and chimpanzees. Ebola virus belongs to the Filoviridae family, genus Ebola virus and is the cause of one of the world's most fatal

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diseases, with very high mortality rate. Almost 90% of the patients suffering from Ebola die.[3]

The signs and symptoms of EBOLA typically start between 2 days and 3 weeks after contracting the virus with a fever, sore throat, muscular pain, and headaches. Then, vomiting, diarrhea and rash usually follow, along with decreased function of the liver and kidneys. At this time, some people begin to bleed both internally and externally. The disease has a high risk of death; this is often due to low blood pressure from fluid loss, and typically follows 6–16 days after symptoms appear.[4]

So we can say that India has remained Ebola free till now. But a study in 2013 suggested that bats might be a reservoir for Ebola virus in Bangladesh. India which remained untouched from the EBOLA virus, on 19th November 2014 diagnosed a case

of it after an Indian resident's semen sample showed traces of Ebola virus. Bangladesh is the neighbor country of India and India shares border with it, so risk remains for India too.[2] Knowledge and awareness are an important milestone in prevention and promotion of health.

MATERIALS AND METHODS

Study Design

This study was conducted at Arihant College of Nursing, Haridwar, India, in 2018. Quantitative approach and descriptive design were used for this study. Convenient sampling technique was used to collect data from 60 subjects. Formal permission to conduct the study was obtained from authorized concerned authority of Selected College of Nursing. Written consent was obtained from the subjects on July 30, 2018. Data were collected by administering Demographic characteristics tool and Knowledge questionnaire on July 30, 2018. Information booklet was provided after collection of data.

Inclusion Criteria

Nursing students who were willing to participate in this study and present at the time of data collection were included in the study.

Exclusion Criteria

Nursing students who were not physically well at the time of data collection and those who were on clinical postings at the time of data collection were excluded from the study.

Instrument/Tool

Data were collected using Demographic characteristics and Self-Structured Knowledge Questionnaire.

Demographic characteristics: It consists of six items that includes: Age, program and placement, father's education, and mother's education, have they heard of Ebola virus and source of information.

Knowledge questionnaire: It consists of 20 multiple choice questionnaires to assess the knowledge regarding Ebola virus disease.

Statistical Analysis

The data were presented as mean ± standard deviation (SD). Criterion measure was used to find out the knowledge score. Subjects having score between 16 and 20 were considered having good knowledge, 11 and 15 were considered having average knowledge, and students getting a score of 01 and 10 were considered having a poor knowledge. Chi-square was used to find the association between knowledge score and demographic characteristics.

RESULTS

The study included a total of 60 nursing students, with age ranging between 17 and 22 years. Table 1 shows that majority of subjects were between 17 and 22 years of age (96%), majority were female (73%), subjects from B.Sc. program (54%), and GNM program

Table 1: Frequency and percentage distribution of demographic characteristics of nursing students n=**60**

S. No.	Demographic characteristics	Frequency	Percentage
1	Age in years		
	• 17–19	29	48
	• 20–22	29	48
	• 23–25	1	02
	• ≥ 26	1	02
2	Gender		
	• Male	16	27
	• Female	44	73
3	Program and Placement		
	• B.Sc. Nursing I Year	16	27
	• B.Sc. Nursing II Year	16	27
	• GNM I Year	10	16
	• GNM III Year	18	30
4	Father's education		
	• Illiterate	03	05
	• Primary	04	07
	• Secondary	08	13
	• Higher Secondary	18	30
	• Graduate	21	35
	• Post Graduate and above	06	10
5	Mother's education		
	• Illiterate	05	08
	• Primary	04	07
	• Secondary	17	28
	• Higher Secondary	20	33
	• Graduate	13	22
	• Post Graduate and above	01	02
6	Have you heard about Ebola virus		
	• Yes	37	62
	• No	18	30
	• Not sure	05	08
7	Source of information		
	• Newspaper	03	08
	• Radio/Television	07	19
	• Internet	14	38
	• Research Journals	03	08
	• Other	10	27

(46%), most of the subject's father education is graduation (35%), majority of the subject's mother education is higher secondary (33%), majority of the subjects have heard about Ebola virus (62%), and the main source of information is internet (38%).

Based on findings of the study, it was concluded that the mean knowledge score was 07.42 ± 2.28. Table 2 (a) depicts that majority of subjects (90%) had poor knowledge and only (10%) having average knowledge regarding Ebola virus disease (EVD). No subjects were having good knowledge regarding EVD. No significant association was found between knowledge score and demographic data.

DISCUSSION

Nurses play a key role in avoiding or preventing the epidemic by spreading general awareness about the disease in the community. For this purpose, there is a need of proper knowledge and understanding of the virus and the disease among the nurses as well as the future nurses, that is, nursing students.

The findings of this study revealed that the majority of subjects (90%) had poor knowledge and only (10%) having average knowledge regarding EVD. The results of the present study were found close to the study conducted by Ismail et al. (September 2016) to assess the predictors of knowledge regarding EVD among 423 medical and nursing students in Nigeria revealed that only

Table 2: (a) Criterion measure of knowledge score *n*=60

Levels of Knowledge	Knowledge Score	Range of Score	Frequency	Percentage
Good	Above 75%	16–20	00	00
Average	50–75%	11–15	06	10
Poor	Below 50%	01–10	54	90

(b). Criterion measure of Knowledge Score n=60

Knowledge Score	Mean	Median	Mode	SD	Maximum Score	Minimum Score	Range
	07.42	07.50	08	2.28	13	03	10

40.9% had good knowledge.[5] In the study done by Abhinitha *et al*. to assess the knowledge regarding EVD among 282 MBBS students of Malaysian origin studying in India revealed moderate knowledge with a majority of students (59%).[6]

Bansal *et al*. (2015) conducted a study to assess the knowledge regarding EVD among 50 staff nurses in a selected hospital of Delhi. The findings of the study revealed that a good number of respondents were having adequate knowledge that is 56%, while the rest 44% of staff nurse were having inadequate knowledge regarding Ebola virus.[7]

Therefore, it was extracted from the above discussion that there is average or poor knowledge among healthcare workers regarding EVD. Nurses play a key role in avoiding or preventing the epidemic by spreading general awareness about the disease in the community. For this purpose, there is a need of proper knowledge and understanding of the virus and the disease among the nurses as well as the future nurses, that is, nursing students.

Limitation of this study is not having intervention.

CONCLUSION

Based on the findings of this study, it can be concluded that majority of nursing students (90%) were having poor knowledge regarding Ebola virus. Therefore, there is a need of upgrading knowledge and awareness regarding EVD among nursing students. Although it is not a disease of Asian region, chances of international spread are always there.

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