

# Assess the Knowledge on Ebola Virus among Engineering, Physiotherapy and Management Students at Saveetha University Chennai and to Distribute Self Instructional Module on Ebola Viral Infection and its Prevention

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**Abstract:** A descriptive study was done to assess the knowledge on Ebola virus among Engineering, Physiotherapy, and Management students at Saveetha University Chennai and to distribute self instructional module on Ebola viral infection and its prevention. Purposive sampling technique was used and 30 students both male and female studying in Saveetha University were selected. Demographic variables and knowledge regarding Ebola virus were collected by using self structured questionnaire. Descriptive and inferential statistics was used for the analysis of data. The findings of the study revealed that there is inadequate knowledge on Ebola Virus in students. Assessing the level of knowledge on Ebola virus among student, Table 2 revealed that there are 66.6% of students had inadequate knowledge, 26.6% having moderate knowledge and 6.6% students are having adequate knowledge. The  $\chi^2$  test shows that there was no significant association between the level of knowledge with the demographic variables such as age of the participant, religion and source of health information. The demographic variables such as monthly income, number of graduate in the family, type of family, education of students and occupation have a significant  $< 0.05$ .

**Keywords:** Knowledge, practice, Ebola virus disease, students studying at Saveetha University

## 1. Introduction

The Ebola Haemorrhagic Fever (Ebola HF) also known as Ebola virus disease (EVD), is an acute viral haemorrhagic illness caused by Filoviridae family. Ebola viral fever, a highly contagious haemorrhagic disease has today become a major public health concern in the developing countries worldwide. Ebola is the new threat the world is currently fighting with no defence mechanisms. With the disease taking lives and the danger of it in India has been giving many sleepless nights. However, the country and Health ministry has taken some precaution to prevent the deadly disease from spreading in India. Ebola is a hemorrhagic fever of the family with a 50 – 90% case fatality rate. There is no effective treatment for Ebola except for the euphemistically labeled “supportive therapy” (CDC, 2009). The virus is spread through contact with infected fluids, typically blood, and once it has infected a new patient it rapidly attacks the internal organs and connective tissue causes severe bleeding, vomiting, aches, mental impairment and dementia, and in severe cases, grand mal seizures. The typical cause of death is multiple organ system failure (Lashley and Durham, 2007). Being a highly contagious disease Ebola HF can spread to other parts of the world because of continuous movement of people in different parts of the world so it becomes necessary for the students who come in contact with patients to be, aware of this highly fatal disease. India being a developing country with high population density and various lifestyles among the folks make India prone towards any type of epidemics so also to Ebola HF. The practice of students exposes people to a variety of microorganisms that are transmittable via blood,

oral or respiratory secretions. Hence, students should have sound knowledge on the prevalent infectious diseases, their symptoms, modes of spread and methods of prevention. The purpose of this study was to assess the knowledge of students practice towards Ebola hemorrhagic fever in Saveetha University.

## 2. Statement of the Problem

A study to assess the knowledge on Ebola virus among Engineering, Physiotherapy, and Management students at saveetha university Chennai and to distribute self instructional module on Ebola viral infection and its prevention.

### Objectives

- 1) To assess the level of knowledge on Ebola virus among engineering, physiotherapy & management students at Saveetha University.
- 2) To associate the level of knowledge on Ebola virus with selected demographic variables among engineering, physiotherapy & management students at saveetha university.

## 3. Materials and Method

The design adopted for this study was descriptive design by using Purposive sampling technique. A structured questionnaire was used to assess the knowledge regarding Ebola viral disease among Engineering, Physiotherapy & Management students studying at Saveetha University. The

tool was prepared by the investigator after reviewing the literature and in consultation with experts. A total of 30 students were selected for the study.

#### 4. Results

The knowledge of students out of 30 samples, there are 20 (66.6%) of participation who have inadequate knowledge, 08 (26.6%) having moderate knowledge and 02 (6.6%) participation are having adequate knowledge.

#### 5. Conclusion

The results of the study show that the majority of the significant Students had inadequate knowledge regarding Ebola virus during the pretest. So the study had several implications for nursing practice, nursing education, nursing administration and nursing research.

**Table 1:** Distribution of demographic variables among Engineering, Physiotherapy, and Management students at Saveetha University

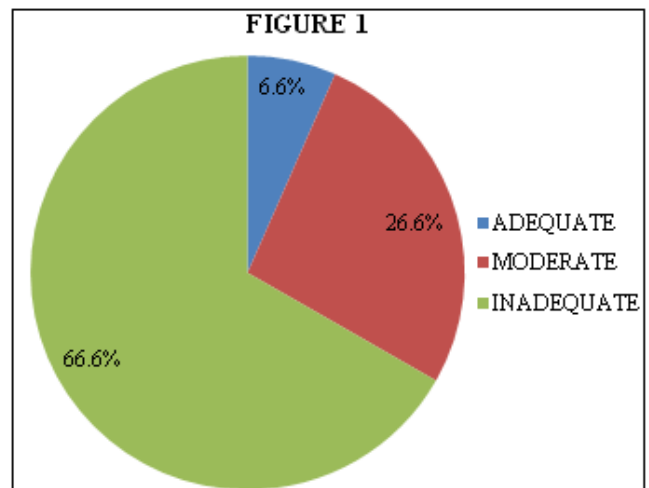
S. No.	Demographic Variables	Frequency	Percentage
1	Age in years		
	(a) 18-21 years	17	56.6%
	(b) 22-25 years	11	36.6%
	(c) 26-29years	2	6.6%
2	Gender		
	(a) male	19	63.6 %
	(b) female	11	36.6%
	Education		
3	(a) Diploma students	1	33.3%
	(b) Graduate students	19	63.3%
	(c) Post graduate students	10	33.3%
	(d) Doctorate students	-	-
4	Religion		
	(a) Hindu	23	76.6%
	(b) Christian	4	63.3%
	(c) Muslim	3	13.33%
5	(d) Others	-	33.3%
	Family income		
	(a) <10000	3	10%
	(b) 10000 -15000	2	6.6%
6	(c) 15000 -20000	3	10%
	(d) Above – 20000	22	73.3%
	Types of family		
	(a) Nuclear	23	76.6%
7	(b) Joint	6	20%
	(c) Extended	1	3.33%
	Number of graduate in the family		
8	(a) Nil	2	6.6%
	(b) One	6	20%
	(c) Two	11	36.6%
	(d) Three and above	11	36.6%
8	Source of information		
	Newspaper	8	26.6%
	Television / Radio	13	43.3%
	Friends/Relatives	4	13.3%
	Health personnel	5	16.6%

Demographic variables reveals that, out of thirty samples 17(56.6%) of them were in the age group of 18-21 years and above only 29(6.6%) of them were in the age group of 26-29 year. Regarding sex, out of thirty samples 19(63.3%) of

them were male and 11(36.6%) were female. Regarding education out of thirty samples, 1(33.3%) of them were diploma students and 19(63.3%) of them were studied up to post graduate. Regarding religion, out of thirty samples 23(76.6%) of them were Hindu and 4(13.3%) of them were Christian. Regarding income, out of thirty samples 3(10%) of them were earning income above 10,000 and 22(73.3%) of them earning above 20,000 as monthly income Regarding type of family out of thirty samples 23(76.6%) of them were from nuclear family and 6(20%) of them were from joint family. Out of thirty samples 11(36.6%) of them were found two number of graduate in the family and 11(36.6%) are three and above number of graduate in the family. Regarding source of health information out of thirty samples 8(26.6%) were skills through newspaper and 13(43.3%) of them were heard through television or radio.

**Table 2:** Frequency and Percentage distribution of level of knowledge on Ebola virus among Engineering, Physiotherapy, and Management students at Saveetha University

S No.	Level of Knowledge	Frequency	Percentage
1.	Inadequate Knowledge	20	66.6%
2.	Moderate Knowledge	08	26.6%
3.	Adequate Knowledge	02	6.6%
4.	Total	30	100%



In pretest out of 30 students, there are 20 (66.6%) of participation who have inadequate knowledge, 08(26.6%) having moderate knowledge and 02 ( 6.6%) participation are having adequate knowledge.

**Table 3:** The mean and standard deviation for level of knowledge on Ebola virus among Engineering, Physiotherapy, and Management students at saveetha university

Level of Knowledge	Mean	Standard Deviation
Knowledge on Ebola virus among Engineering, Physiotherapy & Management students in saveetha university Chennai.	9.8	4.04

Mean and Standard deviation of knowledge on Ebola virus among Engineering, Physiotherapy, and Management students at Saveetha University was 9.8 and 4.04 respectively.

**Table 4:** The association between the demographic variable and the knowledge on Ebola virus among Engineering, Physiotherapy, and Management students at saveetha university

S No.	Demographic Variables	No. of Sample	Level of Knowledge			CHI Square
			Adequate	Moderate	Inadequate	
1	Age in years					
	(a) 18-21years	17	-	01	16	X <sup>2</sup> =4.687 P<0.005 Df – 3
	(b) 22-25years	11	-	02	09	
	(c) 26-29years	2	-	-	02	
(d) 30years and above	-	-	-	-		
2	Gender					X <sup>2</sup> =3.561 P<0.005 Df – 1
	(a) male	19	-	01	8	
	(b) female	11	-	02	09	
3	Education					X <sup>2</sup> = 264.55 P<0.005 Df – 3
	(a) Diploma students	1	-	-	01	
	(b) Graduate students	19	-	02	17	
	(c) Post graduate students	10	-	01	09	
	(d) doctorate students	-	-	-	-	
4	Religion					X <sup>2</sup> =9.527 P<0.005 Df – 2
	(a) Hindu	23	-	-	23	
	(b) Christian	4	02	02	-	
	(c) Muslim	3	01	-	02	
	(d) Others	-	-	-	-	
5	Family income					X <sup>2</sup> =236.23 P<0.005 Df – 3
	(a) 10000 above	3	-	-	03	
	(b) 10000 -15000	2	-	-	02	
	(c) 15000 - 20000	3	-	-	03	
	(d) Above - 20000	22	02	-	20	
6	Type of family					X <sup>2</sup> = 12.194 P<0.005 Df – 2
	(a) Nuclear	23	-	01	22	
	(b) Joint	6	-	01	05	
	(c) Extended	1	-	-	01	
7	Number of graduate in the family					X <sup>2</sup> = 5.908 P<0.005 Df – 3
	(a) Nil	2	-	01	01	
	(b) One	6	-	01	05	
	(c) Two	11	-	-	11	
	(d) Three and above	11	-	-	11	
8	Source of information					X <sup>2</sup> =712.767 P<0.005 Df – 3
	(a) Newspaper	8	-	-	08	
	(b) Television / Radio	13	-	-	13	
	(c) Friends/Relatives	4	-	-	04	
	(d) Health personnel	5	-	02	03	

Table 4 shows that there was no significant association between the level of knowledge with the demographic variables such as age of the participant, religion and source of health information. The demographic variables such as monthly income, number of graduate in the family, type of family, education of students and occupation have a significant.

**S – Significant, NS – Non significant, df – Degree of freedom.**

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