



A STUDY TO ASSESS THE LEVEL OF KNOWLEDGE REGARDING EBOLA VIRUS INFECTION AND ITS PREVENTION AMONG MEDICAL AND NURSING STUDENTS OF TEERTHANKER MAHAVEER UNIVERSITY MORADABAD

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Abstract: This study was conducted to assess the level of knowledge regarding Ebola virus infection and its prevention among medical and nursing students of Teerthanker Mahaveer University Moradabad. The main aim of the study was to assess the level of knowledge about Ebola infection and compare the knowledge level between Medical and Nursing students. A quantitative research approach was adopted and sample was drawn from third year students from the respective colleges. Structured questionnaire was used to collect data from the study population and it entailed information about Ebola disease. Collected data were analyzed using descriptive and inferential statistics. Knowledge level score was tabulated by mean and comparisons in knowledge level were known using standard deviation and unpaired T. test. Association was measure using chi-square test. The study revealed that, 39.2% have inadequate knowledge, 60.8% have moderate knowledge and none have adequate knowledge regarding Ebola virus infection. The different in knowledge revealed that, Medical students have a mean score of 12.74 with standard deviation of 3.345, while Nursing students have mean score of 11.19 and standard deviation of 2.363. The mean different in knowledge level is 1.56.

Keywords: Ebola, knowledge, infection, prevention

Introduction: Evidences from across the world indicates that communicable diseases are common in developing countries due to poverty, lack of skilled health personnel, government policies, ignorance, political

instability, poor infrastructures, lack of technology and malnutrition. . In 1997, of global total of 52.2 million deaths, 17.3 million were due to infectious diseases. Unfortunately, most of these death happened in developing nations of the world. Ebola virus disease is a severe, often fatal illness in humans and has an average fatality of 50%. Africa is typically where the disease occurs in outbreaks, with the largest outbreak in history between March, 2014 to December, 2015. In 1976, the first recorded outbreak occurred in Sudan. It has since spread

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out from there, although the continent of Africa remains the area with the most concentrated amount of occurrences.

The current outbreak in West Africa, (first cases notified in March 2014), is the largest and most complex Ebola outbreak since the Ebola virus was first discovered in 1976. There have been more cases and deaths in this outbreak than all others combined. It has also spread between countries starting in Guinea then spreading across land borders to Sierra Leone and Liberia, by air (1 traveler) to Nigeria and USA (1 traveler), and by land to Senegal (1 traveler) and Mali (2 travelers). WHO declared Ebola virus disease (EVD) as international emergency disease due to its high fatality rate and rapid transmission among human population. The objectives of the study are; To assess the level of knowledge regarding Ebola virus infection and its prevention among Medical and Nursing students, secondly to compare the level of knowledge regarding Ebola virus infection and its prevention between Medical and Nursing students and lastly, to find association between the level of knowledge regarding Ebola virus infection and its prevention among the Medical

and Nursing students with their selected demographic variables.

Materials and Method: The main aim of the study is to assess the level of knowledge about Ebola virus infection, prevention and to compare the knowledge level between Medical and Nursing Students. A quantitative research approach was adopted and comparative descriptive research design was used. The study population for the study was Medical and Nursing Students studying at Teerthanker Mahaveer University Moradabad. Sample was drawn from third year Medical and Nursing students respectively and the sample size were 140 students, 70 students from each college respectively. Structured knowledge questionnaire was used to collect data from the study population and it entailed information about Ebola virus and preventive measures. The collected data were analyzed using descriptive and inferential statistics based on the research objectives and hypothesis. Knowledge level scores were calculated using percentage and mean. Comparison was calculated by standard deviation and T. test value. Association between levels of knowledge with selected demographic variables was determined by chi square test.

Results:

Table 1: Frequency and percentage of Demographic variables of the respondents

DEMOGRAPHIC VARIABLES	MEDICAL STUDENTS		NURSING STUDENTS		OVERALL AVERAGE	
	f	%	f	%	f	%
Gender						
male	36	51.4%	29	41.4%	65	46.4%
female	34	48.6%	41	58.6%	75	53.6%
source of information						
news paper	52	74.3%	19	27.1%	71	50.7%
medical personnel	7	10%	29	41.5%	36	25.7%
Guest lecturer	2	2.2%	11	15.7%	13	9.3%
T. V shows	9	13.5%	11	15.7%	20	14.3%

The above table depicts the frequency and percentage distribution of Medical and Nursing based on their gender. Medical students 51.4% are male and 48.6% were female. Nursing students 41.4% were male and 58.6% were female. The overall average revealed that 46.4% were male and 53.6% were female. It also depicts source of information. Medical students, News papers 52(74.3%), Medical personnel

7(10%), Guest lecturer 2(2.2%) and T. V shows 9(13.5%). Nursing students, News papers 19(27.1%), Medical personnel 29(41.5%), Guest lecturer 11(15.7%), T. V shows 11(15.7%). Overall average, News papers 71(50.7%), Medical personnel 36(25.7%), Guest lecturer 13(9.3%) and T. V shows 20(14.3%).

Table 2: frequency and percentage distribution of Medical and Nursing students on level of knowledge regarding Ebola virus disease and its prevention

KNOWLEDGE LEVEL	RANGE	MEDICAL STUDENTS		NURING STUDENTS		OVERALL AVERAGE	
		f	%	f	%	f	%
Inadequate	1 – 10	16	22.9%	39	55.7%	55	39.2%
Moderate	11 – 20	54	77.1%	31	44.3%	85	60.8%
Adequate	21 - 30	0	0%	0	0%	0	0%

The above table depicts level of knowledge. Medical students 22.9% had inadequate knowledge, 77.1% had moderate knowledge and none is having adequate knowledge. Nursing students 55.7% revealed inadequate knowledge, 44.3% had moderate knowledge

and 0% had adequate. Overall average shows 39.2% had inadequate knowledge, 60.8% had moderate knowledge with 0% indicating adequate knowledge regarding Ebola virus infection and its preventions.

Table 3: frequency and Percentage comparing the level of knowledge on Ebola virus disease and its prevention between Medical and Nursing students

Sample	KNOWLEDGE LEVEL			T. TEST VALUES	
	Mean	S. D Value	Mean Diff	C. Value	T. Value
Medical students	12.74	3.345	1.55	0.487	1.976
Nursing Students	11.19	2.363			

The above table depicts comparison the difference in knowledge between Medical and Nursing students. Medical students have a mean score of 12.74 with standard deviation of 3.345. Nursing students have a mean value of 11.19

and standard deviation of 2.363. The difference in mean score is 1.55, the unpaired T. test value score is 0.487, while the table is 1.976 at $p < 0.05$.

Table 3: Overall frequency and percentage of Medical and Nursing students with their selected demographic variables

VARIABLES	CHI- SQUARE	D. F	T. VALUE	INFERENCE
Sex	1.62	2	5.99	N/S
Age	2.64	14	23.69	N/S
Source of information	2.04	6	12.59	N/S

The above table depicts the association between the level of knowledge of medical and nursing students and their selected demographic variables and shown there is no significant association with their selected demographic variables.

Discussion: The result of the study revealed, Medical students, and 22.9% have inadequate knowledge, 77.1% have moderate knowledge and none of the students have adequate knowledge about Ebola virus infection and its prevention. Nursing students, the findings revealed that 55.7% have inadequate knowledge, 44.3% have moderate knowledge

and none have adequate knowledge. In comparison the knowledge level, Medical students have mean score value of 12.74 with standard deviation of 3.345. Nursing students got mean of 11.19 and standard deviation of 2.363. The mean different is 1.56 and shows slight difference in knowledge level between Medical and Nursing students and Unpaired T. test value is 0.487 and table value was 1.976 at $p < 0.05$. The chi- square test revealed no significant association between level of knowledge among medical and nursing students with their selected demographic variables. Similar studies, Conducted by Aderibigbe S.

(2015) Department of community Medicine University of Ilorin, Nigeria. About people perception on Ebola 39.5% believed Ebola is airborne, 8.0% bite of mosquito, 6.5% bacteria and 22.2% had the right knowledge Ebola of viral origin. Koffi Isodore (2015) conducts comparative epidemiology and surveillance of Ebola infection between male and female. Among 619 cases, there were more female cases of 52.7% and male recorded 47.3%. More death occurred among men with 51.5% and women record 48.5%. The overall case fatality rate due to Ebola virus was 53.3%. WHO 2014, katoungo, Liberia. survey on responses and recovery of Ebola patient based on gender which indicate men recovered more with 56%, female 42%, on age, adult response with 63% than children with only 30%

Conclusion : The study revealed that there is no significant different in knowledge level between Medical and Nursing students regarding Ebola virus infection and its prevention. It can be understood from this study that most of the students have moderate knowledge regarding Ebola virus infection and most of them heard about Ebola virus through news papers. Thus more information about this topic is needed to improve the knowledge level of both Medical and Nursing.

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