



COMPARING AWARENESS ABOUT HIV/AIDS INFECTION AMONG MEDICAL AND NURSING STUDENTS IN A TERTIARY CARE HOSPITAL: A CROSS SECTIONAL STUDY.

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ABSTRACT

Background: HIV continues to be a major global public health issue, having claimed more than 32 million lives so far. Medical and nursing students are future health care workers. Thus, medical and nursing students should be provided with detailed knowledge about HIV and related issues in order to provide high quality, nonjudgmental services that will engage key populations at risk of HIV. Study is done to estimate the awareness regarding HIV/AIDS among medical and nursing students and to compare the awareness associated with HIV/AIDS among medical and nursing students. **Material and Methods:** A cross-sectional study was conducted among 259 medical and nursing students from a tertiary care hospital in Raichur city between 1st October 2019 to 31st January 2020, using a pre-designed, semi-structured questionnaire, after taking consent, the questionnaire was distributed to students which were answered by self administration. Qualitative data was analyzed using Chi-square test and independent sample t test. **Results:** Out of 259 students, majority 160 (61.78%) belong to age 18 years, 147 (56.76%) were male, 212 (81.85%) were Hindus. 197 (76.06%) students were not attended any training programme on HIV/AIDS. Difference was found in medical and nursing students of their knowledge and Practices scores were statistically significant i.e., $P < 0.05$. **Conclusion:** The medical students have high knowledge and practice scores compared to nursing students.

KEYWORDS : HIV/AIDS, Awareness, Medical, Nursing students.

INTRODUCTION:

AIDS is an infectious disease caused by retrovirus called HIV, usually transmitted by sexually intercourse, but often also transmitted percutaneously, parentally, transplacentally and through breast milk.¹ HIV continues to be a major global public health issue, having claimed more than 32 million lives so far. There were an estimated 37.6 million [30.2–45.0 million] people living with HIV at the end of 2020. Globally, 27.4 million [26.5–27.7 million] people living with HIV were receiving ART in 2020. This equates to a global ART coverage rate of 73% [57–88%]. However, more efforts are needed to scale up treatment, particularly for children and adolescents. Only 53% [37–68%] of children (0–14 years old) were receiving ART at the end of 2020.² The main goal of HIV and AIDS education in medical and nursing training is to equip them with the right information needed to provide effective and culturally appropriate care to their patients and at the same time protect themselves against infection.³ Medical and nursing students are future health care workers (HCWs), who may eventually find themselves working in the fields of HIV/sexually transmitted infection (STI) prevention, care, and treatment. Thus, medical and nursing students should be provided with detailed knowledge about HIV and related issues in order to provide high quality, nonjudgmental services that will engage key populations at risk of HIV.^{4,7}

Objective:

- 1) To estimate the awareness regarding HIV/AIDS among medical and nursing students.
- 2) To compare the awareness associated with HIV/AIDS among medical and nursing students.

Methods and Methodology:

A cross-sectional study was conducted among 259 students, 150 students of 1st MBBS, and 109 students of 2nd, 3rd and final year of Nursing from a tertiary care hospital in Raichur city from 1st October 2019 to 31st January 2020. The awareness was assessed by using a pre-designed, semi-structured questionnaire after taking an informed consent from each student. The questionnaire included thirty-eight questions

carrying one point each for correct answer and it is divided into four sections. The first section consists of five questions on socio-demographic details. The second section consists of sixteen questions on level of knowledge about HIV/AIDS. A score of >12 was categorized as excellent, 8 – 12 was categorized as good and < 8 was categorized as having poor knowledge. The third section consists of fourteen questions on student's attitude and beliefs about HIV/AIDS. A score of >11 was categorized as excellent, 7 – 11 was categorized as good and < 7 was categorized as having poor attitude. The fourth section consists of three questions on student's perceived practices towards patients suspected of having HIV/AIDS. Correct answer for all three questions was categorized as excellent, a score of 1 – 2 was categorized as good and zero was categorized as having poor practice. The investigator in each class explained the purpose of the study for filling the questionnaire and confidentially at the beginning of the study. Then the questionnaire was distributed to students which were answered by self administration. Participants were given 20 minutes to complete the questionnaire, which were returned directly to the investigator in a prepared envelope to protect anonymity. We included all the consented students and excluded those who were not willing and absent on the day of study. Before conducting the study, ethical clearance was obtained from the Institutional Ethical Committee.

Statistics:

After collecting the data, it was entered in Microsoft Excel sheet. Frequencies and percentages for qualitative data, mean and standard deviation score for quantitative data were calculated. Qualitative data was analyzed using Chi-square test and independent sample t test. Analysis was done by using EPI info V7.0 software. A P-value of < 0.05 was considered to be statistically significant.

RESULTS:

Table - 1: Socio-demographic characteristics of Medical and Nursing Students.

Socio Demographic characters		Medical (n = 150)		Nursing (n = 109)		Total (n =259)	
		No.	%	No.	%	No.	%
Age	18	138	92	22	20.18	160	61.78
	19	12	8	27	24.77	39	15.06
	20	0	0	6	5.50	6	2.32
	21	0	0	25	22.94	25	9.65
	22	0	0	18	16.51	18	6.95
	23	0	0	11	10.09	11	4.25
Gender	Male	109	72.67	38	34.86	147	56.76
	Female	41	27.33	71	65.14	112	43.24
Religion	Hindu	132	88	80	73.39	212	81.85
	Muslim	14	9.33	20	18.35	34	13.13
	Christian	4	2.67	5	4.59	9	3.47
	Others	0	0	4	3.67	4	1.54

Occupation of the Parent	Govt. Employee	30	20	17	15.60	47	18.15
	Pvt. Employee	50	33.33	24	22.02	74	28.57
	Agriculture	20	13.33	34	31.19	54	20.85
	Business	50	33.33	34	31.19	84	32.43
Attended Training Programme	Yes	21	14	41	37.61	62	23.94
	No	129	86	68	62.39	197	76.06

Table 1 shows Out of 259 students, majority 160(61.78%) belong to age 18 years; majority 147(56.76%) students were male. Majority 212(81.85%) students were Hindus by religion. Majority 84(32.43%) of the students parents occupation was Business. Majority 197(76.06%) students have not undergone any training programme on HIV/AIDS.

Table - 2: Mean score and Standard Deviation of knowledge, Attitude and Practices among Medical and Nursing students.

	No.	Mean score	Standard Deviation	Standard Error	95% Confidence Interval of the Difference		" t " Value	'P' Value	
					Lower	Upper			
Knowledge	Medical	150	12.67	2.574	0.210	0.671	1.924	4.077	0.000
	Nursing	109	11.38	2.464	0.236				
Attitude	Medical	150	8.61	1.658	0.135	-0.034	0.807	1.811	0.071
	Nursing	109	8.22	1.745	0.167				
Practices	Medical	150	2.35	0.837	0.068	0.080	0.498	2.723	0.007
	Nursing	109	2.06	0.853	0.082				

Table 2 shows the mean score and standard deviation of knowledge among medical and nursing students are 12.67± 2.574 and 11.38±2.464. Highly Statistical significant differences in knowledge is found between medical and nursing students i.e., (P = 0.000 < 0.001). The mean score and standard deviation of attitude among medical and nursing students are 8.61±1.658 and 8.22±1.745. No significant

differences in attitude is found between medical and nursing students i.e., (P = 0.071 > 0.05). The mean score and standard deviation of practices among medical and nursing students are 2.35±0.837 and 2.06±0.853. Statistically significant differences in practices is found between medical and nursing students i.e., (P = 0.007 < 0.05).

Table - 3: Comparison of Knowledge, Attitude, Practices scores between Medical and Nursing students.

Score		Medial		Nursing		Total		Chi-square value	'P' value
		No.	%	No.	%	No.	%		
Knowledge	Excellent	95	63.33	38	34.86	133	51.35	21.070	0.000
	Good	49	32.67	66	60.55	115	44.40		
	Poor	06	4.00	05	4.59	11	4.25		
Attitude	Excellent	16	10.67	10	9.17	26	10.04	1.014	0.602
	Good	118	78.67	83	76.15	201	77.61		
	Poor	16	10.67	16	14.68	32	12.36		
Practices	Excellent	82	54.67	38	34.86	120	46.33	10.079	0.006
	Good	45	30.00	45	41.28	90	34.75		
	Poor	23	15.33	26	23.85	49	18.92		

Table 3 shows that the majority (63.33%) of medical students have excellent knowledge and majority (60.55%) of nursing students have good knowledge on HIV/AIDS. The association between knowledge scores among medical and nursing students is found to be statistically significant (P = 0.000 < 0.001). Majority of both medical and nursing students have good attitude towards HIV/AIDS i.e. 78.67% and 76.15% respectively. The association between attitude scores among medical and nursing students is not found to be statistically significant (P > 0.05). Majority (54.67%) of medical students have excellent practices and majority (41.28%) of nursing students have good practices towards HIV/AIDS. The association between practice scores among medical and nursing students is found to be statistically significant (P = 0.006 < 0.01).

The majority (76.06%) of the study participants have not undergone any training on HIV/AIDS and the association between training programme on HIV/AIDS among medical and nursing students is found to be statistically significant(P = 0.000 < 0.001).

DISCUSSION:

The current descriptive study assessed the knowledge, attitude and practices regarding HIV/AIDS among medical

and nursing students in Raichur city. In the present study, majority (61.78%) of the study participants were aged 18 years, while in the study conducted by Lui PS et al, the majority (80.6%) of the study participants were in the age group of 18-22 years.⁸ The present study revealed that the majority (56.76%) of the participants were males, whereas, in the study conducted by Lui PS et al, the majority (61.5%) of the participants were females.⁸ In the present study, majority (81.85%) of the participants were Hindus by religion, whereas, in the study conducted by Eriksson L et al, majority (58%) of the participants were Christians.⁹

The present study revealed that the mean score and standard deviation of knowledge among medical and nursing students were 12.67±2.574 and 11.38±2.464 respectively. Highly Statistical significant differences in knowledge was found between medical and nursing students i.e., (P = 0.000 < 0.001). The mean score and standard deviation of attitude among medical and nursing students were 8.61±1.658 and 8.22±1.745 respectively. No significant differences in attitude was found between medical and nursing students i.e., (P = 0.071 > 0.05). The mean score and standard deviation of practices among medical and nursing students were 2.35±0.837 and 2.06±0.853 respectively. Statistically significant differences in practices was found between

medical and nursing students i.e., ($P = 0.007 < 0.05$). Whereas, the study conducted by Lui PS et al revealed that the mean knowledge score was 16.0 ± 2.9 with no significant difference found between medical and nursing students. The mean attitude score was 41.3 ± 4.7 .⁸

The present study revealed that the majority (63.33%) of medical students had excellent knowledge and majority (60.55%) of nursing students had good knowledge on HIV/AIDS. Similar results were noted in the study conducted by Hussain MA et al regarding medical students.¹⁰ In our study, majority of both medical and nursing students had good attitude towards HIV/AIDS i.e. 78.67% and 76.15% respectively. Majority (54.67%) of medical students had excellent practices and majority (41.28%) of nursing students had good practices towards HIV/AIDS. Similar results were noted in the studies conducted by Boakye DS et al and Rejin Sathya Golda SS, where majority of the nursing students had high knowledge, attitude and practice scores.^{11,12}

In the present study, the majority (76.06%) of the study participants had no training on HIV/AIDS and the association between training programme on HIV/AIDS among medical and nursing students was found to be statistically significant ($p=0.000 < 0.001$). Similar results were noted in the studies conducted by Eriksson L et al, Boakye DS et al and Kalyanshetti SB et al, where majority (91%, 59.2% and 72% respectively) of the study participants had no training on HIV/AIDS.^{9,10,13}

CONCLUSION:

The study revealed that medical students have high knowledge and practice score when compared to nursing students, even after the nursing students had undergone training about HIV/AIDS infection. Medical and nursing students are the vulnerable group of healthcare workers who will be exposed to different patients with chronic and life threatening conditions like HIV/AIDS. Therefore conducting timely awareness program is very essential at the initial years of their admission in to medical school. Before conducting any awareness program assessing the basic knowledge regarding chronic infections like HIV/AIDS is very essential. One such attempt was done in this study. For improving student's awareness we conducted information education communication activities on HIV care.

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