



KNOWLEDGE, AWARENESS & ATTITUDE TOWARDS HIV/AIDS AMONG MEDICAL NURSING & PHYSIOTHERAPY: A CROSS-SECTIONAL STUDY

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ABSTRACT

Purpose: With 2.1 million Indians affected with HIV, India stands to be having the third largest HIV epidemic with 4 out of 10 people infected with this deadly virus. The main cause of this rampant spread of disease is lack of awareness & misconceptions about HIV/AIDS. Many studies have reported that early intervention by providing education in various medical faculty students will help to overcome the negative attitudes/misconceptions regarding HIV/AIDS. Thus this study was conducted to assess the knowledge and attitude in the students of various faculty of medicine.

Material and methods: A cross sectional study was conducted including all the 2nd year MBBS students, Nursing and Physiotherapy students of JNMC, KAHER, Dr. Prabhakar Kore Hospital and Medical Research Center, Belgaum. A total of 166 MBBS students, 80 Nursing and 50 Physiotherapy students were given the pre-validated, semi structured questionnaire to answer. Person's chi-square test & Fisher exact test were used to analyze the data using SPSS version 20.

Results: Majority of students of all faculties have a basic knowledge of HIV/AIDS, though the overall percentage of knowledge is comparatively less amongst the physiotherapy students than nursing and medical students.

Conclusion: Although our study demonstrates an overall satisfactory level of awareness about HIV/AIDS transmission and prevention; there is a need for such surveys to be conducted at regular intervals to assess the level of knowledge, awareness and attitude towards the deadly infection HIV/AIDS, so that appropriate educational programs can be planned for, to eliminate the misconceptions if any.

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INTRODUCTION

AIDS (Acquired Immune Deficiency Syndrome) is a fatal illness caused by a retrovirus known as human immunodeficiency virus (HIV) which breaks down the body's immune system, leaving the victim vulnerable to a host of life-threatening opportunistic infections, neurological disorders and/or unusual malignancies.^{1,2} The term AIDS though used commonly as a synonym to HIV, it actually and correctly refers to late stage of HIV infection. AIDS has emerged as a challenge to public health & human rights.³ Once the person is infected with HIV, he remains infected lifelong. AIDS has cropped up as a modern pandemic affecting all the countries throughout the world.

34.2 million people are infected with HIV in 2011 according to the current estimates by UNAIDS.²

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Largest percentage of HIV infected people are known to be from Sub-Saharan African countries.⁴ More than 90% of HIV infected belong to six major countries like China, Indonesia, Myanmar, Thailand, Vietnam and India. In India 21.17 lakh people are HIV infected according to NACO (National AIDS Control Organization) in 2015. Within India 3.95 lakh population infected with HIV live in Andhra Pradesh and Telangana accounting to be 4th position in HIV burden, followed by Maharashtra, Karnataka, Gujarat, Bihar and UP.^{5,6} HIV/AIDS being a sexually transmitted disease is seen to be majorly affecting the adults in the sexually active age group. 88.55% of HIV infected were found to be of the age group 15-49 yrs of which 31.8% were of 15-29 yrs.² Thus the age group most vulnerable for HIV infection is 15-25 yrs of age. MBBS, Nursing & Physiotherapy students come under this age group.² Due to the increasing incidence & prevalence of HIV/AIDS; WHO has stressed the importance of training in sensitivity, communication skills and development of compassionate attitudes towards HIV infected patients in medical curriculum. As MBBS, Nursing & physiotherapy students being future

health care providers; they have to have adequate knowledge about HIV/AIDS so that they can take care and treat HIV patients and also teach various health personals and general population. This knowledge of HIV/AIDS is very essential for them as they can decrease fear and empathizewith the patients and also help in controlling epidemic particularly by information, education and communication (IEC)/ behavior change communication (BCC).

Many studies have been conducted by various researchers concerning about HIV related knowledge and attitudes among various health professionals and medical students which have reported that early educational intervention will help to bridge the gap in knowledge as well as negative attitudes towards HIV infected.^{8,9} Considering the above objectives, this study was conducted to assess and compare the Knowledge, awareness and attitude towards HIV/AIDS among the Medical, Nursing & Physiotherapy students.

MATERIAL AND METHODS

Study design- Cross sectional, open level and unicentric clinical trial.

Study type- Observational

Study place- Jawaharlal Nehru Medical College, KAHER, KLE University's college of Nursing Sciences and KLE University's Institute of Physiotherapy, Dr. Prabhakar Kore Hospital and Medical Research Center, Belgaum.

Study Population- 166 students in 2nd year MBBS, 50 students in 2nd year Physiotherapy and 80 students in 2nd year nursing, who were present on the day of data collection were enrolled for participation in the study.

Sampling method- Universal sampling method

Methodology- All the students were given pretested, semi-structured questionnaire which included various aspects about HIV/AIDS. Students were encouraged to give their frank opinion and their identities were not disclosed by asking them not to mention their name/ roll number on the forms. After 45 minutes students were asked to submit their forms individually on the same day.

Statistical analysis- Data was entered in Microsoft Excel. Person's chi-square test & Fisher exact test was used to analyze the data using SPSS version 20. P-value < 0.05 was considered as statistically significant.

RESULTS

A total of 166 students from 2nd year MBBS, 50 students from 2nd year Physiotherapy and 80 students from 2nd year Nursing participated in this study. The mean age group of the students was 18.9±0.56 years and 97.7% were in the age group of 18-20 yrs in all faculty. Tables 1 to 6 indicate the details of all the answers for the asked questions by Physiotherapy, Nursing and Medical students. P value for all the answers compared were <0.001, indicating it to be statistically significant.

Table 1 Awareness about HIV/AIDS

Faculty	Awareness of HIV/AIDS		Total
	Yes (%)	No (%)	
Physiotherapy	28(56)	22(44)	50
Nursing	69(86.2)	11(13.8)	80
Medical	164(98.8)	2(1.2)	166
Total	261(88.2)	35(11.8)	296

Chisquare test: P<0.001

DISCUSSION

It is seen that majority of students of all faculty have a basic knowledge of HIV/AIDS, although the overall percentage of knowledge is comparatively less amongst the physiotherapy students than nursing and medical students.

National Behavioral Surveillance Survey (BSS) conducted on 78,916 Indian Youths (15-24 yrs) by National AIDS control Organization (NACO) also reported higher percentage of the students being aware of AIDS/HIV.¹⁰

A study done by Sandeep S *et al*; at New Delhi, India, found that MBBS students knowledge regarding AIDS /HIV was much better than Nursing & Pharmacy students, which was similar to our study findings.¹¹

Similar findings to our study was also found by the Researchers of China, Maimaiti *et al*; in their study also found that knowledge about HIV/AIDS among medical students was higher compared to non-medical students.¹²

The reason for medical students having more Knowledge, awareness about HIV/AIDS could be due to their early exposure to the topics of the same in their curriculum almost in all the subjects they study.

These results accentuate the need of periodic academic educational activities/ programs in the form of seminars, CME's etc. in school/ colleges in countries like ours where prevalence and incidence of HIV/AIDS is high; so that children are provided with information about HIV/AIDS and thus help them to act and behave accordingly.

Study results also suggest the need for sex education in schools/ colleges so that children are familiar with sexuality and puberty related issues. Also emphasizes the need to introduce specific lessons/chapters in school on sex education and HIV/AIDS topics in their curriculum which will surely help in preventing pandemic in a large extent by eliminating the misconceptions and by increasing awareness about it.

CONCLUSION

Although our study demonstrates an overall satisfactory level of awareness about HIV/AIDS transmission & prevention, there is a need for such surveys to be conducted at regular interval to assess the level of Knowledge, awareness & attitude towards the deadly infection HIV/AIDS, so that appropriate educational programs can be planned for, to eliminate misconceptions if any.

Table 2 Knowledge about modes of Transmission

Questions	Faculty									p-Value
	Physiotherapy			Nursing			Medical			
Knowledge about modes of Transmission	Yes (%)	No (%)	Don't know (%)	Yes (%)	No (%)	Don't know (%)	Yes (%)	No (%)	Don't know (%)	
Unsterile needles	0	48(96)	2(4)	71(93.8)	1(1.2)	4(5)	162(97.6)	2(1.2)	2(1.2)	<0.001
Shaving with same blade, razor	4(8)	40(80)	6(12)	59(73.8)	7(8.8)	14(17.5)	143(86.1)	16(9.6)	7(4.2)	<0.001
Tattooing with contaminated Needle	0	48(96)	2(4)	73(91.2)	2(2.5)	5(6.2)	160(96.4)	2(1.2)	4(2.4)	<0.001
IV drug use Routes of transmission	1(2)	49(98)	0	56(70)	7(8.8)	17(21.2)	159(95.8)	2(1.2)	5(3)	<0.001
Mother to child	1(2)	48(96)	1(2)	73(91.2)	4(5)	3(3.8)	161(97)	3(1.8)	2(1.2)	<0.001
Unprotected sex	9(18)	39(78)	2(4)	75(93.8)	2(2.5)	3(3.8)	165(99.4)	1(0.6)	0	<0.001
Unsafe blood transfusion	0	46(92)	4(8)	72(90)	3(3.8)	5(6.2)	165(99.4)	1(0.6)	0	<0.001
Through breast feeding	0	50(100)	0	46(57.5)	18(22.5)	16(20)	100(60.2)	40(24.1)	26(15.7)	<0.001
By Hand shake	2(4)	29(58)	19(38)	7(8.8)	70(87.5)	3(3.8)	2(1.2)	162(97.2)	2(1.2)	<0.001

Table 3 Knowledge about mode of Prevention of spread of HIV/AIDS infection

Questions	Faculty									p-Value
	Physiotherapy			Nursing			Medical			
Knowledge about HIV/AIDS Prevention	Yes (%)	No (%)	Don't know (%)	Yes (%)	No (%)	Don't know (%)	Yes (%)	No (%)	Don't know (%)	
Avoid multiple partners/Single faithful partner	42(84)	6(12)	2(4)	63(78.8)	2(2.5)	15(18.8)	148(89.2)	13(7.8)	5(3)	<0.001
Consistent use of condom	48(96)	0	2(4)	23(28.8)	2(2.5)	55(68.8)	55(33.1)	77(46.4)	33(19.9)	<0.001
By use of OCP	49(98)	0	1(2)	43(53.8)	6(7.5)	31(38.8)	65(39.2)	82(49.4)	18(10.8)	<0.001
By use of IUD's	37(74)	5(10)	8(16)	73(91.2)	5(6.2)	2(2.5)	153(92.2)	5(3)	8(4.8)	<0.01
Use of New syringe/ needle for each patient	36(72)	2(4)	12(24)	65(81.2)	12(15)	3(3.8)	142(85.5)	19(11.4)	5(3)	<0.001
By safe Blood transfusion	32(64)	15(30)	3(6)	64(80)	10(12.5)	6(7.5)	150(90.4)	8(4.8)	8(4.8)	<0.001
By abstinence	16(32)	9(18)	25(50)	63(78.8)	7(8.8)	10(12.5)	128(77.1)	21(12.7)	17(10.2)	<0.001
By use of gloves	15(30)	0	35(70)	59(73.8)	2(2.5)	19(23.8)	127(76.5)	14(8.4)	25(15.1)	<0.001

Table 4 Knowledge about Treatment available for HIV/AIDS and chances of acquiring opportunistic infections

Questions	Faculty									p-Value
	Physiotherapy			Nursing			Medical			
Knowledge about Treatment available for HIV/AIDS and chances of acquiring opportunistic infections.	Yes (%)	No (%)	Don't know (%)	Yes (%)	No (%)	Don't know (%)	Yes (%)	No (%)	Don't know (%)	
HIV is not curable	48(96)	2(4)	0	46(57.5)	3(3.8)	31(38.8)	134(80.7)	6(3.6)	26(15.7)	<0.001
Knowledge regarding maintenance of confidentiality in HIV testing-	39(78)	8(16)	3(6)	24(30)	4(5)	52(65)	117(70.5)	13(7.8)	36(21.7)	<0.001
Knowledge regarding ICTC center availability	46(92)	1(2)	3(6)	13(16.2)	7(8.8)	60(75)	93(56)	18(10.8)	57(33.1)	<0.001
PEP can terminate the HIV transmission, if prescribed within schedule time	39(78)	8(16)	3(6)	49(61.2)	11(13.8)	20(25)	123(74)	5(3)	38(22.9)	<0.01
Good nutritional status is very important from the time a person is infected with HIV	48(96)	1(2)	1(2)	46(57.5)	2(2.5)	31(38.8)	136(81.9)	3(1.8)	27(16.3)	<0.001
HIV/AIDS patients are more prone to opportunistic infection	36(72)	7(14)	7(14)	22(27.5)	16(20)	42(52.5)	124(74.7)	16(9.6)	26(15.7)	<0.001
Does HIV predispose to TB	1(2)	37(74)	12(24)	22(27.5)	22(27.5)	36(45)	116(69.9)	18(10.8)	32(19.3)	<0.001
Is it possible to maintain normal life with antiretroviral therapy?	10(20)	28(56)	12(24)	50(63.3)	17(21.5)	12(15.2)	145(87.3)	9(5.4)	12(7.2)	<0.001

Table 5 Your behavior as health care worker towards HIV infected patients

You as health care worker would	Faculty									p-Value
	Physiotherapy			Nursing			Medical			
	Yes (%)	No (%)	Don't know (%)	Yes (%)	No (%)	Don't know (%)	Yes (%)	No (%)	Don't know (%)	
Will you isolate an HIV-infected person	7(14)	43(86)	0	41(51.2)	25(31.2)	14(17.5)	39(23.5)	115(69.3)	12(7.2)	<0.001
Will you treat an HIV infected differently	6(12)	44(88)	0	30(37.5)	41(51.2)	9(11.2)	39(23.5)	117(70.5)	10(6)	<0.001

Table 6: Knowledge about treating HIV infected patients.

As a health care provider, whom would you refer the HIV infected patients to	Total no. of students who answered	Percentage
ICTC center	121	40.9
Government hospital	39	13.2
Treat yourself	35	11.8
Don't know	101	34.1
Total	296	P value <0.001

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