

# Awareness about HIV/AIDS among medical entrants: A questionnaire study

Basavaraju Anuradha<sup>1</sup>, Subh Lakshmi<sup>2</sup>

<sup>1</sup>Professor and HOD, <sup>2</sup>PG Trainee, Department of Microbiology, Mamata Medical College, Khammam, Telangana, India

## ABSTRACT

**Introduction:** Medical students require sound knowledge about HIV/AIDS and professional risks and should be able to offer appropriate information to society. Furthermore, they are not different from sexually active students of other disciplines in their attitudes and risk behaviors. **Aims and Objectives:** To know about the awareness about HIV/AIDS among medical students. To benefit student's knowledge, attitude, and behavior toward HIV/AIDS. **Materials and Methods:** A close ended questionnaire study of 144 students from 1<sup>st</sup> year, i.e., 100 from medical and 44 from dental courses; to improve the overall knowledge of AIDS between the age group of 18-19 years were conducted at Medical and Dental college immediately after joining the course to know their knowledge, attitude, and practice about HIV/AIDS. **Results:** The majority of students (67.3%) were acquainted and knew the meaning and abbreviations of HIV/AIDS. A large number of students (93.75%) were aware of the mode of transmission through unprotected sex. A moderate number of them (76.3%) were aware of counseling centers and unfortunately only 16.6% believed there is treatment. 92% were willing to go for voluntary testing and only 20.8% opted for safe sex measures. An overwhelming response was seen regarding youth and medico role to prevent AIDS/HIV, sex education at high schools, testing before marriage, etc. a little was known to them regarding prevention and another mode of transmission of HIV/AIDS. **Conclusion:** Awareness program should be carried out.

**Key words:** AIDS, Knowledge, Attitude and practice study, Medical entrants

## INTRODUCTION

AIDS, previously a distinct threat is foreboding a major catastrophe for India, with grave health, social and economic repercussion.<sup>[1]</sup> The increasing pandemicity of HIV-infection threatens every strata of our society. Both men and women are likely to be exposed to a greater risk of the disease. In various colleges, students staying away from home may have an independent environment and liberal lifestyle increasing their chances of practicing high-risk sexual behavior. According to Sharma and Sehgal in a study among senior secondary school students, more than half students did not know the mode of transmission.<sup>[2]</sup> The present study is conducted to know the attitudes, beliefs, risks, behavior among Indian youth and to alarm the need for appropriate awareness programs

about HIV in schools and colleges. Although the latest UNAIDS and WHO estimates are lower than those published in the AIDS epidemic update December 2005, the number of people living with HIV has continued to rise.<sup>[3]</sup>

## MATERIALS AND METHODS

A cross-sectional study was conducted on 144 1<sup>st</sup> year Medical and Dental students of a Medical and Dental college in India, who were between the age of 18 and 19 years. The study was conducted after approval of Institutional Ethics Committee and after written informed consent. A close-ended questionnaire was given to students 2 weeks after joining the course to know about their knowledge, attitude, and behavior toward HIV/AIDS. The questionnaire was filled in

### Address for Correspondence:

Dr. Basavaraju Anuradha, Professor and HOD, Department of Microbiology, Mamata Medical College, Khammam, Telangana, India.  
Email: basavaraju\_a@yahoo.com

class in the presence of investigator, and strict confidentiality was maintained. Data were collected and analyzed. Questionnaire included information regarding the following variables:

- Age of the student
- Sex of the student
- AIDS-related knowledge
- Knowledge of mode of transmission
- Awareness about counseling and treatment centers
- Attitude toward HIV-positive person
- Willingness for voluntary testing if risk of exposure
- Protective measures and preferences.

## RESULTS

The data were analyzed based on the questionnaire. Among the 144 students (Table 1), 51 were males and 93 were females with a standard deviation of 29.69, and it is significant ( $P < 0.05$ ). Out of 144 students (Table 2), 97 (67.3%) were acquainted and knew the meaning and abbreviations of HIV and AIDS, 135 students (93.75%) were aware of mode of transmission through unprotected sex, 110 of them (76.3%) were aware of counseling centers and unfortunately only 24 students (16.6%) believed; there is treatment with a standard deviation of 35.058 which is significant ( $P < 0.05$ ). The positive aspect of the study was that out of 144 students (Table 3), 92 (63.8%) were willing to go for voluntary testing. Regarding attitudes (Table 4) toward HIV positive patients 110 (76.3%) had a positive attitude toward counseling and treatment, 24 students (16.6%) had friendly attitude, and only 2 students (1.3%) were in favor of isolation. Very low percentage, i.e., only 30 (20.8%) students opted for safe sex with condoms indicating their poor knowledge of protective methods. A little was known to them regarding prevention and another mode of transmission of HIV like screening of blood before transfusion and avoidance of drug abuse 23 (15.9%) each with a standard deviation of 40.61 which is significant ( $P < 0.05$ ). An overwhelming response was seen regarding youth and medico's role to prevent AIDS/HIV, sex education at high schools, testing before marriage, etc., which was given 100% approval by them which is significant ( $P < 0.05$ ).

## DISCUSSION

Our study about the awareness on knowledge attitude and practice about HIV shows that majority of students have knowledge regarding the modes of transmission. Out of total of 144 students, 93.75% of students

**Table 1: Profile of study sample (n=144)**

Characteristic	N (%)
Age (18-19 years)	
Sex	
Male	51 (35.4)
Female	93 (64.5)
$P < 0.05$	

**Table 2: Knowledge about AIDS**

Component	N (%)
Knows meaning and abbreviation of HIV and AIDS	97 (67.3)
Knows about mode of transmission	
Unprotected sex	135 (93.75)
Blood transfusion	132 (91.6)
Mother to fetus	111 (77)
IV needles and drug abuse	122 (84.7)
Awareness about counseling centers for HIV/AIDS	110 (76.3)
Knowledge about treatment for HIV/AIDS	
Yes	24 (16.6)
No	103 (71.5)
$P < 0.05$	

**Table 3: Attitudes toward risks and protection**

Component	N (%)
Attitude toward HIV positive person	
Friendly	24 (16.6)
Isolate	02 (1.3)
Advice about counseling and treatment	110 (76.3)
None	
Willing to go for voluntary testing if risk of exposure	92 (63.8)
Protective measures preferred	
Safe protected sex with condoms	30 (20.8)
Screened blood transfusion	23 (15.9)
Avoiding used needles and drug abuse	23 (15.9)
None	
$P < 0.05$	

**Table 4: Attitude of students toward preventive approaches**

Component	N (%)
Any major role of youth to prevent AIDS	
Yes	144 (100)
No	
Sex education to high school children	
Yes	144 (100)
No	
Testing before marriage	
Yes	144 (100)
No	
$P < 0.05$	

know that it is transmitted through unprotected sex, 91.6% know that it may spread by blood transfusion, 77% know about vertical transmission from mother

to fetus and 84.7% had the knowledge about spread through infected intravenous needle and drug abuse. Similar findings by Chatterjee<sup>[4]</sup> showed that 92% of students is knowing about its transmission through unprotected sex, 94.7% know its transmission through infected needles which in a similar study by Kuruvilla *et al.*<sup>[5]</sup> found 64.91% students know that it is transmitted through infected needles. In our study, 67.3% know the meaning and abbreviation of HIV and AIDS. Mukhopadhyay<sup>[6]</sup> in a survey of new college students observed that <60% had satisfactory knowledge on AIDS. In a study conducted by global program against AIDS/HIV in 1991 observed that information and prevention have reached a large segment of the world population, however, misconceptions like transmission through an insect bite, non-intimate contact exist.<sup>[7,8]</sup> In a survey in Pune among college students also showed misconceptions in AIDS transmission prevention and prognosis. Medical college students of today during their study period and after completion, of course, will be engaged in treating AIDS patients. In our study, 63.8% are willing to go for voluntary testing if there is a risk of exposure.

Regarding the protective measures preferred, 20.8% students preferred safe sex with condoms, 15.9% said to perform only screened blood transfusions, and 15.9% had an opinion for avoiding used needles and drug abuse. This shows that majority students have poor knowledge regarding the protective measures.

In a study by Department of Health Education Calcutta only 40-60% correct response obtained from preclinical students.<sup>[9]</sup> Knowledge is the only factor that may be related to behavioral change. Educational programs designed to increase HIV knowledge will have an effect on behavior and will prevent the spread of HIV-infection.

Under or over reporting of facts might have occurred especially due to the sensitive nature of the behavioral questions. Students may be particularly vulnerable to pressure from other students to engage in unprotected sex or to use illicit drugs. In a developing country like India, parental pressure and guidance to retain their cultural values and traditions will prevent the students from going astray, and students should be motivated to resist peer pressure.

Educational programs alone can remove all the misconceptions about transmission, etc.<sup>[10]</sup>

Student's attitude toward HIV infected person is variable. The majority (76.6%) has a positive attitude toward advising about counseling and treatment. Only a few (1.3%) had attitude of isolation. This attitude

among students may be due to limited knowledge as they have entered fresh into the medical college and also their personal negative opinions. Their attitude can be changed in their course of study by proper education about HIV. Further emphasis needs to be given through workshops and seminars.

In our study, the majority of students (71.5%) have poor knowledge about treatment of HIV, in pre-clinical courses to decrease the spread of infection.

For a developing country like India, there are only limited sources; utmost importance is to be given to create awareness among public including students. However educational programs for prevention of HIV transmission and precautions to be taken while treating AIDS patients should be taught in the pre-clinical year itself to arrest its spread. Since the study was conducted among 1<sup>st</sup> year medical students, the results can be applicable only to pre-clinical medical students. Medical training can facilitate inculcation of positive behaviors and attitudes toward HIV/AIDS among medical students. Previous studies among health professionals in India identify the gaps in their knowledge concerning risks and transmission of HIV. These studies also records the negative attitude of health professionals in India toward HIV-infected people.<sup>[11-15]</sup>

### Limitations of the study

This study discusses the knowledge and risk behavior among students in a Medical College in a city of Telangana state, India. The study was set in one city and also one group of students, owing to issues of access and practicality. It is accepted that though our results are correlating with other studies in some aspects they may not be representative of all of Indian population. This study would benefit from a more thorough investigation of student's knowledge, attitude, and behavior among various groups of students which would also increase the statistical power of the findings.

### CONCLUSION

The study reveals that majority of the students heard of HIV/AIDS which indicated their good basic awareness, majority were aware of modes of transmission, still there are some lacunae about practicing of protective measures, counseling and treatment which can be filled by initiation of HIV/AIDS awareness program before adolescence and repeated among medical professionals during their entry to medical college covering professional risk, as well as their preventive measures.

## REFERENCES

1. Mangia B. India-no time for complacency. World AIDS. Vol. 28. New Delhi: Panos Institute; 1993. p. 8.
2. Sharma AK, Sehgal VN. Knowledge, attitude, belief and practice (K.A.B.P) study on AIDS among senior secondary students. Indian J Dermatol Venereol Leprol 1998;64:266-9.
3. UNAIDS. Regional Fact Sheet 2012: Eastern Europe and Central Asia. UNAIDS; 2012.
4. Chatterjee G, Chakraborty I, Ghosh JM. Knowledge about HIV and AIDS among medical entrants-a questionnaire study. Indian J Dermatol 2001;46:80-2.
5. Kuruwila M, Venugopalan PP, Sridhar KS, Kumar P, Rao GS, Kotian S. K A P study on HIV/AIDS among first year MBBS students. Indian J Dermatol Venereol Leprol 1997;63:225-8.
6. Mukhopadhyaya BB, Mukherjee B, Biswas AB. Knowledge and attitude about AIDS among the newly admitted college students in a West Bengal town AIDS ASIA. 1996;6:18.
7. Li X, Lin C, Gao Z, Stanton B, Fang X, Yin Q, *et al.* HIV/AIDS knowledge and the implications for health promotion programs among Chinese college students: Geographic, gender and age differences. Health Promot Int 2004;19:345-56.
8. Garg N, Singh SP, Mishra RN. Knowledge of first year students about HIV/AIDS and its Socio-demographic correlates in Varanasi. Indian Prev Soc Med 2005;36:130-6.
9. Benara SK, Khelendra RK, Chaudhury BN, Bhattacharyya J, Chawla U, Bandopadhyay S. AIDS-A survey of knowledge, attitude and Beliefs of undergraduate students of Delhi University. Indian J Community Med 1992;17:155-9.
10. Dobe M. Awareness on AIDS among health care professionals. Indian J Public Health 1995;39:105-8.
11. Patients in India ashamed to tell doctors they have AIDS. AIDS Wkly Plus 1996:15-6.
12. Brachman P Jr, Kozarsky P, Cetron M, Jacob MS, Boonitt B, Wongsrichanalai J, *et al.* Knowledge and attitudes of hospital-based physicians and trainees about HIV infection in the United States, Canada, India, and Thailand. Arch Intern Med 1996;156:761-6.
13. Tibdewel SS, Wadhwa SK. HIV/AIDS awareness among hospital employees. Indian J Med Sci 2001;55:69-72.
14. Kermode M, Holmes W, Langkham B, Thomas MS, Gifford S. HIV-related knowledge, attitudes and risk perception amongst nurses, doctors and other healthcare workers in rural India. Indian J Med Res 2005;122:258-64.
15. Fatal ignorance. AIDS Asia 1996;3:5.

Received: 10 Sep 2015; Revised: 22 Aug 2015; Accepted: 16 Oct 2015