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Research Article

A study on awareness of HIV among first year MBBS students in a private Medical College, Kerala, India

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ABSTRACT

Background: India has the third largest HIV epidemic in the world with 2.1 million Indians accounting for about four out of 10 people infected with the deadly virus. The lack of awareness and misconceptions about HIV/AIDS is responsible for rapid spread in our country. Many studies reported that early educational intervention has the potential to bridge the gap both in knowledge and the negative attitudes directed towards those with HIV infection. This study was conducted to assess awareness regarding HIV/AIDS in newly admitted medical students and to assess awareness regarding HIV/AIDS among first year medical students of a private medical college in Kerala, India.
Methods: A cross sectional study was conducted on first year MBBS students of a private medical college, Kerala. A total of 135 students were interviewed using pre-validated, semi structured questionnaire. Descriptive statistics were used to analyze the data.
Results: All the students (100%) were aware about HIV/AIDS disease, its causative agent and diagnostics test. Majority of the students were aware about the modes of transmission and preventive approaches. A few of the respondents believed wrongly that the virus can be transmitted through mosquito bite, by hugging and kissing, through urine as well as sharing of same toilet seats and clothes with an infected person.
Conclusions: Our study demonstrates an overall satisfactory level of awareness on routes of transmission and prevention of HIV/AIDS. A continuous such surveys at regular intervals would further help to assess the level of awareness and attitude towards HIV/AIDS for designing future educative programmes.

Keywords: HIV, AIDS, Awareness, Medical students

INTRODUCTION

India has the third largest HIV epidemic in the world with 2.1 million Indians accounting for about four out of 10 people infected with the deadly virus in the Asia-Pacific region, according to a UN report.[1] According to National AIDS Control Organization (NACO), the total number of people living with HIV/AIDS (PLHA) in India (2015) was estimated at 21.17 lakhs. The adult HIV prevalence has continued its steady decline from an estimated peak of 0.38% in 2001-03 through 0.34% in 2007 and 0.28% in 2012 to 0.26% in 2015.[2] Due to the increasing incidence and prevalence of HIV/AIDS, its big impact on health system, the World Health Organization has stressed the importance of including training in sensitivity, communication skills, and the development of compassionate attitudes toward HIV infected patients in the medical curriculum.[3]

The medical students who are the future doctors should have adequate knowledge, who in turn may educate and provide useful information to all other different kinds of health personnel in their surroundings to provide care to AIDS/HIV positive patients. Therefore, the comprehensive knowledge of the first year students who

directly come from the common population is important to decrease fear and increase empathy in the community.

The key strategy for controlling this epidemic is health education, particularly Information, Education and Communication (IEC)/behavior change communication (BCC).[3] Many studies concerning HIV related knowledge and attitudes conducted amongst both health professional and medical students reported that early educational intervention has the potential to bridge the gap both in knowledge and the negative attitudes directed towards those with HIV infection.[4,5]

With the above as objective, the present study was conducted to assess awareness regarding HIV/AIDS among first year medical students of a medical college in Kerala. This opportunity was also used to remove the misconception about HIV/AIDS and to educate and enhance the knowledge related to HIV/AIDS amongst first year medical students.

METHODS

Setting and Study design: This observational cross sectional study was conducted among first year MBBS students, in a private medical college, Kerala, India.

Study subjects: All of the 135 MBBS course students in the age range of 18-20 years enrolled in the first year of medical college were invited to participate in this study on awareness of HIV conducted by the Department of Community Medicine.

Study duration: 2 Months (November - December 2015).

Sampling method and data collection: The sampling method used was convenient sampling. The study was conducted after obtaining ethical clearance from the Institutional Ethics Committee, Kannur Medical College. After explaining the purpose of the study and after taking informed written consent from study participants the data was collected from those who were willing to participate in the study. The data was collected by administering a pretested, semi structured questionnaire to the students which included basic demographic details and sections to determine students' knowledge and awareness about the modes of HIV transmission, misconceptions about HIV transmission and its prevention.

Statistical analysis: Data were entered in Microsoft Excel and descriptive statistics were analysed using EpiData Analysis V2.2.2.182 in the form of frequencies and proportions.

RESULTS

A total of 135 students were assessed, among them 101 (75%) and 34 (25%) were males and females respectively. The mean age of the students was 18.93±0.67 years and 97.8 % were in age group of 18-20 years.

Almost all the students were heard about of HIV/AIDS in terms of definition and causation. Majority of students (88%) were aware that once infected with HIV, there is no cure and 66% of students were aware that HIV is a contagious disease. In our study, all the students were aware of the terms HIV/AIDS, albeit higher proportion could write correctly the full form of AIDS (95.8%) in comparison to HIV (72.6%) (Table 1).

Table 1: Awareness about HIV/AIDS among the first year medical students of a medical college, in Kerala, India.

Awareness	Yes n(%)	No n(%)
Heard about HIV	135 (100)	0
Caused by the Virus	133 (98.5)	2 (1.5)
Full form of HIV	100 (74.1)	35 (25.9)
Full form of AIDS	112 (83)	23 (17)
Contagious	90 (66.7)	45 (33.3)
Curable	119 (88)	16 (21.9)

Table 2: Knowledge about modes of HIV transmission among the first year medical students of a medical college, in Kerala, India.

Modes of Transmission	Yes (n) (%)	No (n) (%)	Don't Know (n) (%)	No response (n) (%)
Blood transfusion	124 (91.9)	1 (0.7)	1 (0.7)	9 (6.7)
Unsterile needles	120 (88.9)	4 (3)	0	11 (8.1)
Sexual route	120 (88.9)	1 (0.7)	0	14 (10.4)
Shaving with same blade, razor	67 (49.6)	55 (40.7)	5 (3.7)	5 (5.9)
Tattooing	50 (37)	66 (48.9)	12 (8.9)	7 (5.2)
IV drug use	110 (81.5)	14 (10.5)	6 (4.4)	5 (3.7)

Among the catalogue of options provided to assess the knowledge regarding transmission of HIV, 91.9% of the students believed that transmission of HIV is possible during blood transfusion, around 89% of them believed that it can be transmitted through sexual intercourse and sharing unsterilized sharp objects. About 82% of the students opined that HIV can be transmitted among intravenous drug usage. Only 37% of them know about the transmission of HIV through tattooing also (Table 2).

A few of the respondents believed wrongly that the virus can be transmitted through mosquito bite (15.6%), by hugging and kissing (7.4%) through urine (17.8%) as well as sharing of toilet seats (5.9%) and clothes (10.4%) with an infected person (Table 3).

Table 3: Knowledge about misconception about modes of HIV transmission among the first year medical students of a medical college, in Kerala, India.

Misconception about modes of transmission	Yes (n) (%)	No (n) (%)	Don't Know (n) (%)	No response (n) (%)
Hugging, Kissing	10 (7.4)	117 (86.7)	1 (0.7)	7 (5.2)
Sharing of glasses and plates	6 (4.4)	122 (90.4)	0	7 (5.2)
Sharing of towels	8 (5.9)	118 (87.4)	1 (0.7)	8 (5.9)
Sharing toilet seats	8 (5.9)	114 (84.4)	4 (3)	9 (6.7)
Through urine	24 (17.8)	93 (68.9)	7 (5.2)	11 (8.1)
Hair cut	12 (8.9)	113 (83.7)	3 (2.2)	0
Mosquito bite	21 (15.6)	100 (74.1)	7 (5.2)	7 (5.2)
Sharing of clothes	14 (10.4)	115 (85.2)	2 (1.5)	4 (3)

More than two-third agree that the use of condom, safe blood transfusion and avoiding multiple partners can prevent HIV/AIDS (Table 4). Approximately 80% students believed that prayer, I- pill and vasectomy have no role in preventing HIV/AIDS.

Table 4: Awareness about modes of prevention among the first year medical students of a medical college, in Kerala, India.

Mode of Prevention	Yes (%)	No%	No response (%)
Use of condoms	114 (84.4)	14 (10.4)	7 (5.2)
Safe blood /its product transfusion	115 (85.2)	10 (7.4)	10 (7.4)
Avoid multiple partners/Single faithful partner	102 (75.6)	27 (20)	6 (4.4)

DISCUSSION

HIV infection is not only a significant health problem but also one of the most important social issues of the twenty-first century. Although most of the participants were aware of the basic information about the disease like causative agent, modes of transmission, etc., we noticed that there were misconceptions in their knowledge and awareness in many critical areas of the disease. There are wrong beliefs that HIV could be transmitted by various means such as mosquito bites, sharing clothes, using public toilets. Chatterjee et al found school children had various misconceptions such as hand shaking, kissing, sharing toilets and exchanging clothes.[6] Kissing as a mode of transmission was a major misconception (37%) in a Nigerian study by Gugnani et al done on non-medical students as compared to 7.4% in our study.[7]

The predominant preventive method mentioned by students was condom, safe blood transfusion and avoidance of multiple sex partners. Similar results were obtained by Ganguli et al in their study on college students.[8] The reason for such awareness could be attributed to educative programmes.

Students though had better knowledge about modes of prevention of HIV, quarter of the students believed that it can be prevented by copper T, prayer, I pill and Vasectomy/Tubectomy This misconception might expose them to the risk of transmission.

Students have a good knowledge about the symptoms of HIV/AIDS. Most of the study population told that the source of information about the HIV/ AIDS were from TV, Newspaper which was similar to study conducted by Kiran N et al.[9] Less than 50% of them reported doctor as the source of information. 83% of the people told that they have received some formal sex education at school/college which was similar to study conducted by Kiran N et al.[9]

HIV stigmatization can result in mental trauma to those living with HIV causing loss of self-esteem as well as deterioration in social interactions with others.[10] It is the inadequate knowledge that results in such misconceptions, attitude and behavioral differences towards HIV patients. Steps should be taken to remove apprehensions in this young future to be doctors for a better attitude towards affected individuals.

CONCLUSION

Our study demonstrates an overall satisfactory level of awareness on routes of transmission and prevention of HIV/AIDS. A continuous such surveys at regular intervals would further help to assess the level of awareness and attitude towards HIV/AIDS for designing future educational programmes. There is a need to introduce basic sex education curriculum at school and college levels to remove the misconceptions and to increase the awareness about HIV/AIDS.

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