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Knowledge and awareness about HIV/AIDS amongst pre professional students

Microbiology

KEYWORDS: HIV, AIDS, Awareness, Attitude

Dr. Rodrigues Savio — Professor and Head, Department of Microbiology, Goa Medical College, Bambolim Goa, 403202.

Dr. Wiseman Pinto Maria Jose — Associate Professor, Department of Microbiology, Goa Medical College, Bambolim Goa, 403202.

ABSTRACT

Background: HIV/AIDS is a worldwide problem with medical and social issues, requiring the overall co-operation of the healthcare personnel and lay person towards the affected.

Objectives: To assess knowledge about HIV/AIDS amongst new entrants to the MBBS course, to evaluate prevalence of myths and misconcepts and to understand their response and attitude towards the affected individuals.

Methods: Evaluation and compilation of data through a questionnaire consisting of 25 questions.

Results: The study group included 127 students admitted to the medical course. The overall awareness about the causative agent was 33.9%. Blood transfusion and use of contaminated syringes and needles were thought to be the major modes of transmission (84.3%). A total of 83.4% students felt that heterosexual practices had a higher risk of transmission as compared to homosexual activity. Concerning attitude towards people with HIV/AIDS, 99.2% were aware that there was no risk involving casual contact. On preventive aspect, 92.1% students opined that it was necessary to sternly warn the affected individuals about their sexual behavior. Most students (81.1%) acquired the knowledge from schools and colleges.

Conclusion: Overall results show that students' knowledge is lacking and hence indicates the need for education, from the school/college level for a comprehensive management of the disease.

Introduction

HIV/AIDS is a social and medical problem of global magnitude which lacks proper understanding and attitude from the community towards unfortunate victims. This serves as a major drawback towards adequate management, humane social responses and prevention of this infection.

Knowledge about HIV/AIDS and its transmission should be essentially disseminated to all susceptible population, especially amongst the youth who are in the vulnerable age group. Knowledge alone is an important key for its prevention; absence of which would lead to undesired fear and discrimination. Further, the prevalence of certain myths and misconcepts would not only promote its transmission but also contribute to marginalize the victims. To tackle this issue it has been pointed out by programme managers and policy makers that schools can act as centre points for disseminating information and education on HIV/AIDS.[1]

The current study was undertaken in the Department of Microbiology, Goa Medical College, to take stock of the knowledge about HIV/AIDS and allied issues, shared amongst the students who join the medical course at Goa Medical College, after passing qualifying exams. This group represents the general population in the age 17-19 years, as 17 years is the minimum age for admission. The study also aimed at evaluating the misconcepts and myths amongst these students and further to understand their social responses and attitude towards people living with HIV/AIDS. Knowledge assessment and awareness was done using a predesigned questionnaire.

Finally, it is important to show concern about their awareness status about HIV/AIDS, as these students would account for the future generation of our country dealing with health care of the community. Their awareness and behavioral attitudes towards infection would redefine the course of HIV epidemic.

Materials and methods

One hundred and twenty seven students out of a total of 150, who joined the MBBS course for the academic year 2016-2017, at Goa Medical College, were present on the first day of orientation programme and formed the study group. All these students were above the age of 17 years, as this is the minimum age required at entry point to this professional college. The students were provided with a predesigned questionnaire targeted to evaluate knowledge, concepts and myths prevalent amongst the study population. The questionnaire consisted of 25 questions which included basic knowledge about HIV, AIDS, modes of transmission, attitudes towards people living with HIV/AIDS (PLHA) and stigmas and discrimination issues. This questionnaire was given to the new entrants on the first day of orientation before the formal programme. Thereafter, spot answers for the above questionnaire were flashed on the screen with the objective of providing knowledge and creating awareness. The responses obtained were compiled and evaluated to estimate the level of awareness.

Results

One hundred and twenty seven students who joined MBBS Course at Goa Medical College and who were present on the first day of Orientation Programme were included in the study. Amongst the participants, 52 were males and 74 were females. The male: female ratio was 0.7: 1. One student did not disclose the gender. The age group of these students ranged from 17 years 5 months to 22 years 5 months.

that while 84 (66.1%) of them thought that one of the two viruses were responsible for AIDS or they were not sure which virus was the causative agents of AIDS (Table 1).

Their knowledge about modes of transmission was far from expectation. One hundred and seven subjects (84.3%) opined that blood transfusion and contaminated syringes and needles accounted for majority of the HIV infections. They also felt that heterosexual practices were associated with increased risk of transmission as compared to homosexual activity (106/127; 83.4%). Although majority of them (123; 96.9%) knew that frequent change of sexual partners leads to increased risk of HIV transmission, not all students knew that blood donation was safe; 54 (42.5%) of them felt that a person could get infected after donating blood. Three students (2.4%) also responded that individuals belonging to high socioeconomic status were unlikely to get HIV/AIDS while three others (2.4%) felt that frequent change of sexual partners could reduce the risk of acquiring sexually transmitted diseases (Table 2). The association of STDs and HIV was clear to most of the students. However, only 5 (3.9%) students thought that the risk of getting any viral infections like Hepatitis B or HIV was low if a person was already infected with STDs and 23 (18.1%) others were doubtful about the correct answer.

With regards to transmission of infection from mother to child, 79 (62.2%) students knew that breast feeding is not the only mode of transmission from mother to child. However, surprisingly, 34/127 (26.8%) believed that transmission of infection to new born could be totally prevented by stopping breast feeding and 14 (11.02%) others were indecisive.

On the issue of attitude towards HIV/AIDS victims, the students were well versed. All except 1 student (99.2%) were aware that there was no risk involved in having social contact with HIV/AIDS infected person. All the participants were also confident that there was no risk involved in sitting next to a co passenger infected with HIV/AIDS. All but one student (99.2%) felt that there was no need to segregate any student if he/she was found to be HIV positive and that no employers' service should be terminated on account of HIV positive report (Table 1).

On preventive aspect, 15 (11.8%) students opined that banning commercial sex is the only way to control the spread of HIV infection. A total of 117 students (92.1%) felt that it was the rightful duty of counselor to give stern warning to HIV positive individuals about their sexual behavior (Table 1).

Some students also believed in myths. Thirty two out of 127 (25.2%) felt that masturbation leads to weakness and 48 others (37.8%) were not sure.

A total 82 (64.6%) students agreed that frequent masturbation could be a behavioral disorder and needed counseling, whilst 12 (9.4%) students did not think so.

With the exception of one student, all other students were familiar with the terms homosexual, heterosexual and bisexual. They were also aware of the role of condom in prevention of HIV infection. However, 101 (79.5%) did not believe that all other sexually transmitted diseases with the exception of HIV were curable. One hundred and six students (83.4%) were aware that there was no effective vaccine against HIV. All except one student advocated that sex education should be started in schools.

Most of the students (103; 81.1%) claimed that they have acquired knowledge about HIV/AIDS from School or College, 13 students (10.2%) acquired the knowledge from Electronic/print media. Two students (1.6%) acquired the knowledge from friends. Nine students (7.1%) acquired the knowledge from more than one source (Table 3).

Overall, the results revealed that the students' knowledge had various lacunae on some major and finer aspects of HIV/AIDS and there was a need to educate them.

Discussion

HIV is an infection which is more common in the reproductive age group; the most vulnerable age group being between 15 and 25 years.[2] This infection does not have a complete cure, hence, preventive strategy is a crucial weapon that can play a vital role in prevention and control of this epidemic.

It has also been reported that there is a wide gap between HIV/AIDS Curriculum in schools in India and the actual education that is imparted.[3]

Awareness about HIV/AIDS and its transmission cycle is an important key factor for prevention of transmission of infection, as there is no commercial vaccine available till date. Many studies have been conducted in developing countries which suggest that awareness level is far from satisfactory.[4] Further, this lack of knowledge may lead to unfavorable outcomes, concerns and panic amongst the subjects.[5]

The present study which was conducted to determine the awareness amongst the students, included age group of 17-22 years; as was the case with most other studies which were conducted in similar age group.[6,7,8] In our study population, 39.4% of the students did not know the full form of HIV and another 11.8% did not know the full form of AIDS. Further, they lacked knowledge about the causative agent of AIDS. The overall awareness about the infective agent was 33.9% in the present study. Nikam et al also reported 50% awareness about causative agent of AIDS in a study conducted at Belgaum Institute of Medical Sciences.[9] In a study conducted by Rao et al, the overall awareness about the causative agent was much higher, to the tune of 85.9%.[7] Similarly, Lal et al have reported good level of awareness in a study conducted in Kerala.[10] It is possible that our students were probably concentrating more on their professional entrance examination and devoting less attention to other topics. Awareness level about basic causative agent was generally higher (98% to 99%) in studies conducted outside the country.[11] However awareness level was lower in a study amongst Nigerian School students which was to the tune of 5%.[12]

Data analysis about modes of transmission revealed that substantial number of students had no clear concepts. A total of 84.3% students felt that needles and syringes and blood transfusion were major modes of transmission of infection and another 83.4% even thought heterosexuals were at a higher risk as compared to homosexuals. Some students (42.5%) believed that blood donation was unsafe. These trends are dangerous as this could lead to negative impact on blood donations. A study conducted by Lal et al also exposes the fact that only 50% of the students knew about sexual route of transmission.[1]

Majority of our students knew the association of sexually transmitted diseases and HIV. Three of them (2.4%) felt that frequent change of partners could reduce the risk of transmission. Fortunately, this was only amongst minority of students.

Our students were not well versed with transmission of infection from mother to new born, though 62.2% knew that breast feeding was not the only mode of transmission. Thirty four percent of subjects thought that vertical transmission could be totally prevented by stopping breast feeds. Sharma et al (2006),[6] in their study, observed that although 96% of girls knew that infection can be transmitted from mother to child, yet only 39% knew that infection could be transmitted through breast feeding. This again highlights the fact that their knowledge is to be beefed up.

Social response towards HIV/AIDS was encouraging and our students did not believe in segregating / ostracizing or isolating infected victims. Similar findings are reported by Lal et al in their study.[1] However such favorable attitude towards PLHA was not seen in a study conducted in Nasik.[13] Such unfavorable responses could generate stigmas and could be a major setback for management, prevention and control programmes.

As a preventive measure, some of the students (11.8%) believed that banning commercial sex would be the most appropriate step and 92.1% also supported counselors on giving stern warnings to PLHA on their life style. The students need to be taught that they should not be judgmental, as this attitude is counterproductive. They should also be made aware of the fact that counseling is different from advice.

Most students (99.2%) were also well versed with the role of condoms in prevention of HIV. Many studies revealed that students were aware of the role of condom in prevention of transmission of infection.[1,6,7] However, Khan et al[14] and Lal et al[1] have reported condom awareness as low as 35% and 14.9% respectively.

Majority of the students (83.4%) were aware that there was no effective vaccine against HIV and advocated sex education at school level. Jindal, in his study also expressed the view that awareness about non availability of vaccine was high.[8] Since there is no effective vaccine, there is a need to create awareness right from school level.

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It is important to know the source that was providing information about HIV/AIDS to the students. In our study most of the students (103; 81.1%) claimed that the information came from school and college education programmes. In a study by Lal et al,[1] the major source of information to students was seen to be through electronic media, while Khan et al[14] reported that major source was electronic media and friends. School education has been rightly described as "Social Vaccine" and can serve as a powerful preventive tool.[1]

During the awareness programmes in schools/colleges, there is a need to brief the students on biological development of the child, as some of the students had misconcepts on masturbation; some of them (25.2%) opining that masturbation could lead to weakness.

Conclusion

The present study was designed to estimate the knowledge and awareness level about HIV/AIDS amongst students before they joined professional college. The results suggested that the awareness level was not satisfactory on many issues. It indicates the need to take appropriate measures to educate them in early adolescence and thereafter, when they join professional colleges. This would be a big supportive step towards prevention of HIV/AIDS.

Tables

TABLE 1: AWARENESS ABOUT HIV/AIDS

Sr. No.	Awareness/Knowledge	Number of Respondents	Percentage
1	Not aware of nomenclature of HIV	50	39.4
2	Not aware of nomenclature of AIDS	15	11.8
3	Not aware of etiological agent	84	66.1
4	Vaccine not available	106	83.4
5	Need to ban commercial sex as preventive strategy	15	11.8
6	Protective efficacy of condoms	126	99.2
7	Need to impart strict warning on sex behavior	117	92.1
8	Need to terminate services of HIV positive subjects	1	0.8
9	Need to isolate infected students	1	0.8
10	Low risk transmission in higher socioeconomic status persons	3	2.4
11	No risk of transmission through social contact	126	99.2

TABLE 2: PERCEIVED COMMON MODES OF TRANSMISSION OF HIV

Sr. No.	Modes of transmission	Number of Respondents	Percentage
1	Blood transfusions	107	84.3
2	Contaminated syringes and needles	107	84.3
3	Heterosexual behavior more risky than homosexual activity	106	83.4
4	Mother to child	79	62.2
5	Risk following blood transfusion	54	42.5

TABLE 3: SOURCE OF INFORMATION

Sr. No.	Source of information	Number of Respondents	Percentage
1	Schools/Colleges	103	81.1
2	Electronic/Print media	13	10.2
3	Friends	2	1.6
4	More than one source	9	7.1

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