ABSTRACT

Objective: To determine level of HIV/AIDS knowledge among first-year MBBS, nursing and pharmacy students of a health university. Materials and Methods: A pre-designed, pre-tested, anonymous self-administered, semi-structured questionnaire was circulated among available 129, 53 and 55 first-year MBBS, nursing and pharmacy students during Oct’ 09. Data entry, management and analysis were carried out using MS excel and software statistical package. Result: Out of the total 237 students, there were 123 (51.9%) female and 103 (44.0%) students from rural native place. A majority of students were able to correctly write the full form of AIDS (95.8%) in comparison to HIV (72.6%) and the difference between two terminologies were known to 87.6%, 81.1% and 70.9% of MBBS, nursing and pharmacy students, respectively. All four common routes of transmission of infection and methods of prevention were known to majority of the lot. However, injecting drug users (IDU) and truck driver as a risk category was correctly reported by 67.5% and 55.3% students, whereas 35.9% incorrectly mentioned that smoking is a risk factor for acquiring infection. A statistically significant \( P < 0.05 \) proportion of MBBS followed by nursing and pharmacy students were aware that infection neither spreads by social activities like handshake/playing nor by mosquito bite. However, low level was ascertained with regard to items related to non-curability of infection (57.4%) and availability of anti-retro viral therapy (27.4%). Conclusion: Overall high level of knowledge was recorded in the present study with a difference noted among students in three professional streams.

Key words: Aids, HIV, knowledge, university students

INTRODUCTION

Globally, the number of people living with HIV is estimated to be nearly 33.4 million as per year 2008 data. Number of estimated people with newly infected HIV and AIDS-related death stood at 2.7 million and 2.0 million. Nearly, 40% of new HIV infection was among the age group of 15-24 years.[1] In India, overall HIV prevalence among different population groups continues to reflect the concentrated epidemic situation in the country with 2.3 million people living with HIV/AIDS and estimated adult prevalence of 0.34% (0.25-0.43%).[2] The epidemic is greater in urban areas than rural areas, greater among males than females, decreases with increasing education level, and is found to be highest among women whose spouses work in transport industry.

As majority of the population in India is considered to be free from infection, comprehensive preventive strategies would continue to be the main pillars of action of stakeholders in controlling disease progression. Information education (IEC)/behavior change communication (BCC) is one such critical element under this strategy. Therefore, it is imperative to continue to gauge the level of HIV/AIDS knowledge at regular interval so as to provide feedback to planners for fine tuning the educational activities. With this background, a study was conducted to assess level of knowledge regarding HIV/AIDS among first year professional students in a health university, India for the admission year 2009.
MATERIALS AND METHODS

University of Health Sciences, Rohtak (Haryana) has a sanctioned seats of 150 (MBBS), 60 (Nursing) and 60 (Pharmacy) at undergraduate level, in addition to post-graduation and other para-medical courses. It is one of the premier teaching and training public institution of northern India that provides specialist’s tertiary care services to patients largely belonging to lower/ middle socio-economic strata of the society with rural and urban background. The attached medical college hospital caters to an average daily out-patient (OPD) attendance of more than 5,000 patients and 80,000 annual admissions supported by near about 1,750 in-patient beds.

This cross-section descriptive study was undertaken using pre-designed, pre-tested, anonymous, self-administered, semi-structured questionnaire among available 129, 53 and 55 first-year MBBS, nursing and pharmacy students in the age-group of 17-19 years on 1st, 5th and 7th Oct’ 2009, respectively. Remaining professional seats were either vacant or students were absent on the day of data collection, and hence, could not be covered. After explaining study objective, seeking informed verbal consent and ensuring confidentiality, students were given 45 minutes to complete the questionnaire without mutual consultation under the supervision of investigator. Students were given the option to withdraw from the study any time during the data collection without any fear or obligation, if they felt to do so; however none of them refused to participate. They were requested to scrutinize the questionnaire for completeness before return and all doubts clarified subsequently. It is noted that students were not formally exposed to topic in the university prior to conduct of study at any forum.

The study variables were related to demography, gender and native place; professional stream; full form and difference between HIV/AIDS, routes of transmission, methods of prevention, behavioral risk category, opportunistic infection, and anti-retroviral therapy, etc. Data entry and management were carried out using MS excel sheet and software statistical package (SPSS-16 ver.). Analysis was carried out by calculating proportion, chi-square test with P value shown against statistically significant (P < 0.05) items only and results depicted according to professional streams.

RESULTS

Out of the total 237 students, there were 123 (51.9%) females and 103 (44.0%) students from the rural native place. A majority of students were able to correctly write the full form of AIDS (95.8%) in comparison to HIV (72.6%) and the difference between the two terminologies were known to 87.6%, 81.1% and 70.9% of MBBS, nursing and pharmacy students, respectively. All four common routes of transmission of infection and methods of prevention were known to majority of the lot [Table 1]. However, injecting drug users (IDU) and truck driver as a risk category was correctly reported by 67.5% and 55.3% students only, whereas 35.9% incorrectly mentioned that smoking is a risk factor for acquiring infection. A statistically significant proportion of MBBS followed by nursing and pharmacy students were aware that infection does not spread by social activities like handshake/ or playing nor mosquito bite. However, low level was ascertained with regard to items related to non-curability of infection (57.4%) and availability of anti-retro viral therapy (27.4%).

DISCUSSION

A cross-sectional descriptive study was undertaken among first-year professional (MBBS, nursing and pharmacy) students in a health university in India to determine level of HIV/AIDS awareness. In our study, all the students were aware of the terms HIV/AIDS, however higher proportion could write correctly the full form of AIDS (95.8%) in comparison to HIV (72.6%) with a statistically significant difference (P < 0.05) noted between the three professional streams. National Behavioral Surveillance Survey (BSS) conducted on 78,916 Indian Youths (15-24 years) by National AIDS Control Organization (NACO) also reported higher proportion being familiar with the terminology AIDS (86%) than HIV (72%). Most of the youth who were aware of HIV/AIDS also knew that HIV/AIDS could be transmitted through unprotected sexual contacts (92%), transfusion of infected blood (95%) and sharing of used/infected needles (94%). More than two-fifths of the youths could correctly identify three common misconceptions on transmission of HIV/AIDS. Similar observations were noted in this study albeit with comparatively lower proportion reporting infected blood transfusion (81.4%) as a risk for acquiring infection.

Similar and/or higher level of correct knowledge with regard to routes of transmission, prevention, and myths/misconception was recorded in this study when compared to other studies conducted in India or at international platform. In a south Indian study conducted on first year medical students, it was noted that 25.7% believed that mosquitoes bite could transmit infection while this study recorded 16.9% among all students. This wrong belief was present among 28.3%, 25.5% and 8.5% of nursing, pharmacy and MBBS students respectively (P<0.05). The
The difference between HIV/AIDS was known to 82.3% of students in this study whereas it was 54% in university students at Kazakhstan. In another study conducted in Nigeria and Delhi, proportion of respondents who were aware about existence of anti-retroviral drugs for HIV/AIDS was 52.6% and 28.6% respectively. Present study recorded 27.4% for the same indicator inspite of availability of free ART in India since 2004. Similar to our study, researcher in China also reported higher HIV/AIDS knowledge amongst medical students in comparison to non-medical students.

The students in various professional streams pass a highly competitive exam to get admission in this prestigious university, and hence, may have a higher level of knowledge. However, with immediate educational background of students being similar (10+2), a clear difference in level of knowledge was noted among three professional streams in the present study. Ignorance and erroneous beliefs may impact an individual to behave and communicate in a particular manner. But there is ample opportunity in enhancing comprehensive knowledge, instilling positive attitude and changing behavior amongst students during their period of training in the institute with higher attention required on pharmacy and nursing students.

**CONCLUSION**

To conclude, the main focus of communication activities in the country till few years has been on informing community about HIV/AIDS, risk of transmission, methods of
prevention and promoting good practices, however as this study points out that educational endeavors could be broadened to lay focus on myths/misconception, opportunistic infection and availability of anti-retroviral therapy also.

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REFERENCES

1. AIDS epidemic update. Geneva: UNAIDS and WHO; Dec 2009. ISBN 9789291738328.
2. Annual Report. Department of AIDS Control. Ministry of Health and Family Welfare, Government of India, New Delhi; 2009.
3. National Behavioural Surveillance Survey (BSS): 2006. National AIDS Control Organization, Ministry of Health and Family Welfare, Government of India, New Delhi; 2008.
4. Singh SK, Saxena A, Krishna G. A profile of HIV infection/AIDS related knowledge among female students of Kanpur district, India. Kathmandu Univ Med J 2007;5:27-31.
5. Deb S, Mukherjee A, Acharya S. Attitude of nursing students of Kolkata towards caring for HIV/AIDS patients. Indian J Community Med 2004;24:111-3.
6. Mizanur M, Kabir M, Shahidullah M. Adolescent knowledge and awareness about AIDS/HIV and factors affecting them in Bangladesh. J Ayub Med Coll Abbottabad 2009;21:3-6.
7. Kuruvila M, Venugopalan PP, Sridhar KS, Kumar. K A P study on HIV / AIDS among first year MBBS students. Indian J Dermatol Venereol Leprol 1997;63:225-8.
8. Hansson M, Stockfelt L, Urazalin M, Ahlm C, Andersson R. HIV/ AIDS awareness and risk behavior among students in Semey, Kazakhstan: A cross-sectional survey. BMC Int Health Hum Rights 2008;8:14.
9. Ibe SN. HIV/AIDS awareness study of fresh students in tertiary institutions in rivers state of Nigeria. J Appl Sci Environ Manage 2005;9:11-3.
10. Lal P, Nath A, Badhan S, Ingle GK. A study of awareness about HIV/ AIDS among senior secondary school children of Delhi. Indian J Community Med 2008;33:190-2.
11. Maimaiti N, Shamsuddin K, Abdurahim A, Tohti N, Memet R. Knowledge, attitude and practice regarding HIV/AIDS among university students in Xinjiang. Glob J Health Sci 2010;2:51-60.

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