

Original Research Article

Knowledge, attitude and perception regarding HIV/AIDS among postgraduate students of university of Pune

Dipendra Singh Thakuri*, Chandra Bahadur Thapa

Save the Children, Mid and Far West Field Office, Nepalgunj, Nepal

Received: 12 February 2018

Revised: 14 March 2018

Accepted: 15 March 2018

*Correspondence:

Mr. Dipendra Singh Thakuri,

E-mail: dipendrathakuri95@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: HIV/AIDS is still a public health challenge because there is still no cure drug available. Thus, the study was carried out to assess the knowledge, attitude and perceptions regarding HIV/AIDS among postgraduate students of University of Pune.

Methods: A cross-sectional study conducted among the students of the University of Pune, Maharashtra, India from July to December 2013. A total of 432 respondents were enrolled in the study. The respondents were selected using simple random sampling and descriptive analysis was done to assess the KAPs.

Results: The result shows that all the students had heard about HIV/AIDS. The common source of information was mass media 70.8%. About 79% students had known the cause of HIV/AIDS and 83.4% said correct full form of HIV. However, there were many misconceptions about the routes of transmission. 37% of the students believed that HIV may be transmitted through mosquito's bite and 16.9% reported that sharing meal with infected people can transmit HIV. A relatively positive attitude towards HIV/AIDS patients was found among students. Nevertheless, about 21% of students avoid care of HIV positive person, 25% rejected to buying food from HIV positive shopkeeper and 21% refused to continue working if worker is HIV positive. Regarding perception, the majority of students had positive perception.

Conclusions: All students were aware of HIV/AIDS. Majority of them were aware about route of transmission and prevention. However, the respondents comprising post graduate students, yet there were many misconceptions about route of transmission and significant knowledge, attitude and perception gaps.

Keywords: HIV/AIDS, Knowledge, Attitude, Perception, Postgraduate students, Pune

INTRODUCTION

Human immune deficiency virus/acquired immune deficiency syndrome (HIV/AIDS) is still a public health challenge because there is still no cure drug available. In 2012, an estimated 35.5 million people are living with HIV, 1.6 million had died due to AIDS in the world.¹ In the south and east Asia region 3.9 million adults and children are living with HIV and 270000 people are newly infected in the year 2012.² In India, the first

serological tested HIV positive case was identified in 1986, when serological testing found that 10 of 102 female sex workers in Chennai were HIV positive. The estimated number of people living with HIV/AIDS in India was 20.89 lakh with the 1.16 lakh of estimated new annual HIV infections in 2011.³ the epidemic of HIV/AIDS is now pressing at a rapid among young people. Studies have reported that young people from a significant segment of those attending sexually transmitted infection (STI) clinics and those infected by HIV.⁴

It is caused increased morbidity and mortality and led to a negative effect on national economies.⁵ The causes of HIV infection include unprotected sexual contact, injection drug use, contaminated blood transfusion, mother-to-child transmission (prenatal and while breastfeeding), and occupational exposure among health care workers.⁶ University students are mainly vulnerable to HIV, as over half of all new infections worldwide are among young people.⁷ There are factors Put university students at risk for HIV infection such as peer pressure, lack of maturity, alcohol and drug use.⁸ more likely to engage in high-risk behaviors, such as unprotected sex.⁹ If these individuals lack adequate information regarding HIV knowledge and behavior, they might be at risk to HIV. This issue has special importance in the context of the emerging trends in new HIV cases in India that show that nearly two-fifths of new infections are reported among people below 25 years of age.¹⁰

Therefore, it is essential to assess the knowledge, attitudes and practices of students regarding HIV and AIDS before planning appropriate preventive measures. Since there is no cure drug available till date, primary prevention to control the spread of HIV infection through awareness and changing behavior remains at the highest priority for HIV/AIDS control program.¹¹ Health education is still the best method to prevent infection through change level of knowledge and attitude of young people toward HIV/AIDS that leads to establish protective health-behavior patterns in young people.¹²⁻¹⁴ There are very limited studies of HIV/AIDS related knowledge, attitude and perception conducted among university students and even they are limited on in nursing and medical students. Therefore there is need of such study in postgraduate level with non-medical students. The aim of the study is to assess the knowledge, attitude and perception of postgraduate students regarding HIV/AIDS. The finding of the study could help to design the health education program at university level so that the youths can have better understanding of the prevention that will keep them away from HIV/AIDS.

METHODS

This was a cross-sectional descriptive study carried out to assess the knowledge, attitude and perception of HIV/AIDS among Postgraduate students of University of Pune, India. The study was carried out in 11 different departments of University of Pune, India: Physics, Computer Science, Law, Communication, English, Hindi, Social Science, History, Mathematics and education between July to December 2013. A simple random sampling method was adopted for this study in the selection of the 11 faculties among the several faculties of University. Collection of data from students in the 11 departments was done using universal sampling methods.

A self-administered questionnaire was used to collect data which comprised of three sections which included questions on socio-demographics, knowledge on cause,

transmission and prevention, attitude and perception about HIV/AIDS. The questionnaire was self-administered to 450 consenting non-medical students. Being knowledge based research; the students were cautioned to fill the questionnaire immediately. Completed questionnaires were retrieved immediately after completion to avoid sourcing information on internet. The data collected were coded and analyzed using SPSS (Statistical Package for Social Sciences) software package version 19. Descriptive statistics such as frequencies and percentages were used to measure level of knowledge on HIV.

RESULTS

Total 432 graduate students form 11 departments of the university were participated in the study. Among the respondents, 233 (53.94%) were male and 199 (46.06%) females. The average age of the participants was 22.70 ranging from 20-38 years. Participants, who were participated, were almost unmarried (93.52%). The highest percentage (15.51%) of respondents were from Physics departments followed by Mathematics 13.66%, Computer Sciences 12.96%, Economics 8.80%, Hindi 8.33%, Communication 7.64%, Physical Education 7.41%, Commerce 6.94%, politics 6.02% and History 5.56% (Table 1).

The study found that the most common source of information regarding HIV/AIDS among students was mass media (73%) and school teacher (16%). Very few students, only 2%, reported that parents, friends and sexual partner as source of information (Figure 1).

About 83.52% graduate students have known the full form of HIV and among the respondents only 74.71% were able to differentiate between HIV and AIDS, however, the cause of HIV/AIDS was known by 78.42% of participants (Table 2).

About 64% students have knowledge that HIV cannot be transmitted by mosquito bite and 83% believed that sharing meal with HIV infected person can to get transmission of HIV (Table 3).

About 95% students had knowledge that the unprotected sexual contact is as a mode of HIV transmission. Infected blood transfusion, mother to child transmission and infected needle/syringe is reported by 88%, 85% and 83% of students as a mode of transmission respectively (Table 4).

The knowledge on method of prevention of HIV is very crucial. It was found out that among the study participants, more than 78% students have knowledge that the safe sex/use of condom is as a method of HIV prevention. Furthermore, other method of prevention such as use of sterilized needle/syringe, blood test before transfusion, and on limit sexual partner is known by 63%, 65% and 59% of students who had participated in the study (Table 5).

Table 1: Distribution of student according to age and sex and department (n=432).

	Sex		Total (%)
	Male	Female	
Age group			
Less than 25 years	212	182	394 (91.2)
Between 26 and 30 years	17	13	30 (6.94)
Greater than 31 years	4	4	8 (1.85)
Total	233 (53.93%)	199 (46.06%)	432 (100)
Mean age±SD	22.70±2.47		
Department			
Physics	28	39	67 (15.5)
History	8	16	24 (5.5)
Mathematics	33	26	59 (13.65)
Commerce	11	19	30 (6.94)
computer science	29	27	56 (12.96)
Law	15	16	31 (7.17)
Economics	12	26	38 (8.79)
Politics	16	10	26 (6.01)
Communication	17	16	33 (7.63)
Physical education	11	21	32 (7.40)
Hindi	19	17	36 (8.33)
Total	199	233	432 (100)

Table 2: General knowledge regarding HIV/AIDS (n=429).

Full form of HIV(human immunodeficiency virus)	83.52%
Difference between HIV/AIDS	74.71%
Cause of HIV/AIDS	78.42%

Table 3: Misconception regarding HIV/AIDS (n=429).

	Male (%)	Female (%)	Total (%)
Mosquitoes transfer HIV from one person to another by biting an infected person and then going to bite an uninfected person? (n=429, M=231, F=198).			
No (correct response)	156 (67.5)	122 (61.6)	278 (64.8)
Can a person get HIV by sharing a meal with someone who is infected? (n=429, M=231, F=198)			
No (correct response)	194 (84.3)	165 (83.3)	359 (83.9)

Table 4: Knowledge on mode of transmission of HIV (n=429).

Unprotected sexual contact	95.3%
Infected blood	88.63%
Mother to child	85.38%
Infected needle and blade	83.53%

Table 5: Knowledge on methods of HIV prevention (n=429).

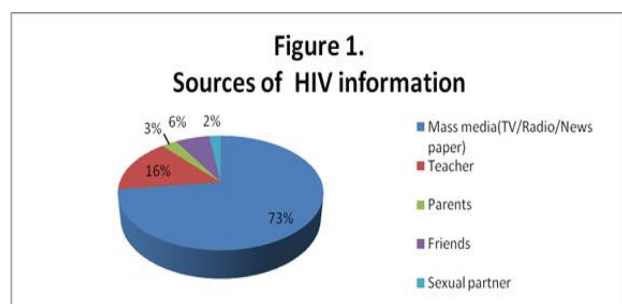
Safe sex/use of condom	78.19%
Use of sterile needle and syringe	63.57%
Blood test before transfusion	65.66%
Limit sexual partner	59.86%

Table 6: Attitude related to HIV/AIDS (n=429).

	Yes (%)	No (%)
If worker teacher is HIV infected but not sick. Should he or she be allowed to continue working?	78.42	21.58
If shopkeeper or food seller has HIV/AIDS would you buy food from him/her?	74.71	25.29
If anyone relative of yours became ill with HIV/AIDS, would you be willing to care for him/her in your household?	78.89	21.11

Table 7: Perception related to HIV/AIDS (n=429).

	Agree (%)	Disagree (%)	Don't know (%)
Do you think any person is in danger of getting HIV?	47.33	15.08	37.59
What do you think correct use of condom can protect people from getting HIV?	67.05	7.88	25.08
Is HIV and AIDS awareness helps person to protect themselves from HIV infection?	81.43	6.24	12.29
What do you think a person can lose a job if he /she tell others that he/she has HIV?	21.53	56.48	21.99

**Figure 1: Source of HIV information.**

Showing positive attitudes toward HIV infected person is very essential which help them to live in a society as dignified life. The study showed that about 74% student had positive attitudes toward people living with HIV. About 78.89% student had shown their willingness to care of HIV positive person and 74.71% students reported to buy food form HIV positive shopkeeper/food seller. Furthermore, 78.4% students agreed to be allowed to continue working to worker/teacher with HIV infected but not sick (Table 6).

More than 47% study students think that any person is in danger of getting HIV; however, 15% students don't think so. More than 37% students don't have any opinion on it. Correct use of condom can protect people from getting HIV, this statement is agreed by 67.05% students but only few students (7.88%) did not agree it and 25.08% students don't know about it. Raising awareness about HIV/AIDs helps person to protect themselves from getting HIV infection is believed by 81.34% students; whereas, 6.24% did not agree with it and 12.29% students said don't know. Majority of the study participants (56.48%) did not agreed that the person loose job if the person disclose HIV infected history. Almost equal percentage, 21.53%, 21.99% of students said agree and don't know about the statement respectively (Table 7).

DISCUSSION

The finding of present study shows all the students who participated in this study had heard about HIV/AIDS. About 74-83% students had known the full form, cause and difference between HIV and AIDS. About 88% students had heard about condom. However, only 78% students had known that condom can prevent HIV/AIDS and STDs. Similar result was found out by the study conducted in Kanpur district in India among college students.¹⁵ Media (70.83%) was the leading source of information for students regarding the present knowledge about HIV/AIDS which is similar to the findings shown by the study conducted among college students in Kerala¹⁶ and Delhi.^{17,18} Teachers (15.5%) and the friends (6.25%) were the second and third most common source of information regarding HIV/AIDS. Thus in university the teacher has a key role in providing information regarding HIV/AIDS to the students.

In general, post graduate students had good knowledge related to HIV/AIDS transmission. More than 80% students were able to mention the four modes of transmission for HIV/AIDS. Since the study collected information from 11 different department of the University, there is a variation of level of knowledge among students. Most of the students from physics, mathematics, physical education and communication departments had good knowledge as compare to history, computer science and Hindi departments. Similar findings have shown by the study conducted in Nagpur India among University students.¹⁹ A further examination on the frequency distribution revealed that some misconceptions exist despite the good knowledge. Among the students, 16.90% and 36.43% misconceived that sharing foods and mosquito bites respectively can transmit HIV/AIDS. Similar findings are also observed by the study carried out in Nagpur district of India.¹⁹

The reason for the existents of misconceptions may be; because majority of students reported that the most common source of information about HIV/AIDS was mass media that has limitation in establishing two way communications to clear up misunderstanding. The present study brought out some misconception about the transmission of HIV/AIDS. About one third of the students thought that HIV can be transmitted through mosquito bite and more than 16% by sharing foods. These results were comparable with the study done in Belgaum, Karnataka, India. The study also found out that only 31% of the students had good knowledge on preventative measures of HIV/AIDS. Regarding the knowledge on safe sex/use of condom, 78% students had known about it but, only 40% students were aware about limit sexual partner. The prevalence of knowledge of the students on preventive measure is very less as compared with the study conducted in beluga district Karnataka, India.²⁰ In the current study, on an average 74% student had reported positive attitudes toward people living with HIV whereas, about 78.89% student had shown their positive attitude on willingness to care of HIV positive person. Similarly, 74.71% and 78.4% buying food from HIV positive shopkeeper/food seller and “worker/teacher is HIV infected but not sick respectively. There were no significant different attitudes among males and females but, the level of knowledge was associated with attitudes of the students. Similar finding has shown by the study conducted in India among nursing students by the Red Cross university college.²¹

In the current study about 47% students perceived that any person is in danger of getting HIV. Whereas, 67% students thought that correct use of condom can protect people from getting HIV. Almost 81.34% students agreed that HIV/AIDS awareness helps person to protect themselves from HIV infection. There is strong association among knowledge and perception of the students. However, there is no significant association between sex and perception. The similar findings brought out by the study conducted in Delhi India among senior secondary students.²²

CONCLUSION

All Students were aware of HIV/AIDS. Majority of them had knowledge on route of transmission and prevention. However, the respondents comprising postgraduate students, yet there is a significant knowledge, attitude and perception gap. These finding suggests that continue and intensified prevention and education initiatives about HIV/AIDS at school and college level should be strengthened. In addition, special health education programs in the form of health talks/seminars and continuous education should be targeted to University students.

ACKNOWLEDGEMENTS

Our sincere thank goes to Prof. Anita Kar, HOD of Interdisciplinary School of Health Sciences, University of

Pune and Maj Gen (Rtd.) Dr. Vijay Tilak, the visiting faculty of the University of Pune. We would also like to thanks to all the HOD's and Postgraduate students of University of Pune.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. UNAIDS. Global report on HIV/AIDS, 2013. Available at: <http://www.unaids.org>. Accessed on 3 August 2017.
2. UNAIDS. Report on the global AIDS epidemic, 2010. Available at: <http://www.avert.org/aids-india.htm>. Accessed on 3 August 2017.
3. NACCO. Annual report 2012-2013, 2013. Available at: http://www.naco.gov.in/upload/Publication/Annual%20Report/Annual%20report%202012-13_English.pdf. Accessed on 3 August 2017.
4. Urmil AC, Dutt PK, Sharma KK, Ganguly SS. Medico of male teenager STD patients attending clinic in Pune. *Indian J Public Health*. 1999;4:176–82.
5. Merson MH. The HIV-AIDS pandemic at 25—the global response. *N Engl J Med*. 2006;354:2414–7.
6. Ahmed S, Hassali M, Abdul Aziz N. An Assessment of the Knowledge, Attitudes, and Risk Perceptions of Pharmacy Students Regarding HIV/AIDS. *Am J Pharm Educ*. 2009;73(1):15.
7. Tan x, Pan J, Zhou D, Wang C, Xie C. HIV/AIDS Knowledge, Attitudes and Behaviors Assessment of Chinese Students: A Questionnaire Study. *Int J Environ Res Public Health*. 2007;4(3):248–53.
8. Gatrad A, Sheikh A. Risk factors for HIV/AIDS in Muslim communities. *Diversity in Health and Social Care*. 2004;1:65–9.
9. Fleming DT, Wasserheit JN. From epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. *Sex Transm Infect*. 1999;75(1):3–17.
10. Anand D, Puri S. Nutritional knowledge, Attitude, and practices among HIV positive Individuals in India. *J Health Popul Nutr*. 2013;31(2):195–201.
11. Al-Mazrou Y, Abouzeid M, Al-Jeffri M. Knowledge and attitudes of paramedical students in Saudi Arabia towards HIV/AIDS. *Saudi Med J* 2005;26(8):1183–9.
12. Al-Jabri A, Al-Abri J. Knowledge and attitudes of undergraduate medical and non-medical students in Sultan Qaboos University toward Acquired Immune Deficiency Syndrome. *Saudi Med J*. 2003;24(3):273–7.
13. Ghabili K, Shoja M, Kamran P. The Iranian female high school students' attitude towards people with HIV/AIDS: a cross-sectional study. *AIDS Res Therap*. 2008;5:15.

14. Hasnain M. Cultural Approach to HIV/AIDS Harm Reduction in Muslim Countries. *Harm Reduct J*. 2005;2:23.
15. Singh SK, Saxena A, Krishna G. A profile of HIV infection or AIDS related knowledge among female students of Kanpur. *Med J*. 2007;5(17):27-31.
16. Lal SS, Vasan RS, Sarma PS, Thankappan KR. Knowledge and attitude of college students in Kerala towards HIV/AIDS, sexually transmitted diseases and sexuality. *Natl Med J India*. 2000;13(5):231-6.
17. McManus A, Dhar L. Study of knowledge, perception and attitude of adolescent girls towards STIs/HIV, safer sex and sex education: A cross sectional survey of urban adolescent school girls in South Delhi, India. *BMC Womens Health* 2008;8:12.
18. Bhalla S, Chandwani H, Singh D, Somasundaram C, Rasania SK, Singh S. Knowledge about HIV/AIDS among senior secondary school students in Jamanagar, Gujrat. *Health Popul*. 2005;28:178-88.
19. Deshmukh JS, Wadhwa SK, Zodpey SP. AIDS: knowledge and attitudes of university students in Nagpur. *Indian J Med Sci*. 1998;52(7):302-8.
20. Joshi AV, Nikam K, Hungund BR, Viveki RG, Nikam SV, et al. Knowledge about and attitude towards HIV/AIDS among first year medical students: A cross-sectional study. *J Scientific Society*. 2013;40:3.
21. Eriksson L, Grundin RD. Nursing students' knowledge and attitudes towards people with HIV/AIDS [Dissertation]: The Red Cross University College, 2010.
22. 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(3):190-2.

Cite this article as: Thakuri DS, Thapa CB. Knowledge, attitude and perception regarding HIV/AIDS among postgraduate students of university of Pune. *Int J Community Med Public Health* 2018;5:1750-5.