Research Article

Knowledge about human immunodeficiency virus/acquired immune deficiency syndrome among school teachers in Udaipur, Rajasthan

Rakhi Luthra[1], Kunal Luthra[2], Mukul Dixit[1]

[1]Department of PSM, Geetanjali Medical College & Hospital, Udaipur, Rajasthan, India, [2]Department of Pulmonary Medicine, Lok Nayak Hospital, Maulana Azad Medical College, New Delhi, India

Correspondence to: Rakhi Luthra, E-mail: lurakhi1234@gmail.com

Received: February 11, 2017; **Accepted:** March 10, 2017

ABSTRACT

Background: Human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) has emerged as the single most formidable challenge to public health. **Objectives:** The study was conducted to determine the knowledge among teachers regarding HIV/AIDS and provide suggestions for HIV/AIDS education in schools. **Materials and Methods:** A cross-sectional study was conducted among teachers (170) of intermediate schools of Udaipur, Rajasthan, India. It has 13 secondary and senior secondary schools. Both qualitative and quantitative methods were used in the study. **Results:** All respondents had heard about HIV/AIDS, newspapers/magazines/posters (28), television (95), and relatives/friends (15) were common sources of information. **Conclusion:** In our study, we were found that the teachers do not have adequate knowledge, skills, and confidence for teaching the sexual issues; therefore, the teachers found to be shy and sometimes embarrassed.

KEY WORDS: Acquired Immune Deficiency Syndrome; Human Immunodeficiency Virus; Knowledge; Teachers

INTRODUCTION

India has the third largest human immunodeficiency virus (HIV) epidemic in the world. In 2013, HIV prevalence in India was an estimated 0.3%. This figure is small compared to most other middle-income countries, but because of India's huge population (1.2 billion), this equates to 2.1 million people living with HIV. In the same year, an estimated 130,000 people died from acquired immune deficiency syndrome (AIDS)-related illnesses.[1]

AIDS was first recognized in the United States in the summer of 1981 when the Center for Disease Control and Prevention (CDC) reported the unexplained occurrence of pneumocystis carinii pneumonia in five previously healthy homosexual men in Los Angeles and of Kaposi's sarcoma in 26 previously healthy homosexual men in New York and Los Angeles. Within months, the disease became recognized in male and female injection drug users and soon thereafter in recipients of blood transfusions and in hemophiliacs.[2] This syndrome was initially termed "GRID," or Gay related immune deficiency. By August 1982, the disease was being referred to by its new CDC-coined name: AIDS.[3]

Access this article online	
Website: http://www.ijmsph.com	**Quick** Response code
DOI: 10.5455/ijmsph.2017.0203510032017	

Global Burden of HIV/AIDS

AIDS emerged as the chief public health issue of the late 20th century, not only because it became a leading cause of morbidity and mortality throughout the world but also because it involved topics that captured the public attention and imagination such as fear of contagion, sex, premature death, and intimate personal relationships.[5]

HIV/AIDS Burden in Rajasthan

Rajasthan is a western state of India, abounds in geographic, demographic, and social diversity. It is the largest state in the

country in terms of geographical area - 3.42 lakh km^2 and 8th largest in term of population - 68.6 million, according to the 2011 Census.[6]

School being the gateway where the topics related to HIV/AIDS can be addressed and information, values, and skills conveyed in schools can thus have a considerable impact on their lives.[7] Teachers can play a very significant role in reducing the occurrence and spread of HIV infection among their students by giving education regarding causation and prevention of HIV/AIDS. This depends on their own knowledge regarding HIV/AIDS, their attitude toward HIV/AIDS education. Teachers can function as role models, advocates for healthy school environment, guide for students in need of services, resources for accurate information, mentors, and effective instructors. But to meet these expectations in the HIV/AIDS era, teachers need skills and knowledge as well as support from the educational system and broader community.[8]

MATERIALS AND METHODS

The study was conducted in both urban and rural field practice area of Geetanjali Medical College Udaipur. The urban field practice area of Geetanjali Medical College is situated in Savina, 6 km away from the college. The urban health training center provides health-care facility to population of 5739. It has 13 secondary and senior secondary schools. Rural field practice area of Geetanjali Medical College, situated in Dabok 25 km away from Udaipur city. The rural health training center provides health-care facility to a population of 9532. It has 7 secondary and senior secondary schools. All secondary and senior secondary schools both government and private were included in the study.

Study Design

The study was a cross-sectional descriptive study. Both qualitative and quantitative methods were used in the study. Qualitative method of focus group discussion used for teachers at two schools, one from urban field practice area and other from rural field practice area.

Study Population

School teachers teaching in class IX and onward in the secondary and senior secondary school of the study area were included in the study.

Study Period

From January 2015 to 31 December 2016.

Sampling

A total 170 teachers were teaching in these schools. As the National AIDS Control Organization has provided guidelines for implementation of the School AIDS Education Program. The program targets class IX and onward in all schools. Hence, all teachers (those are teaching class IX and onward classes) of secondary and senior secondary school of the study area were taken through purposive sampling (non-probability sampling). A total 170 teachers were included in the study.

Tools and Techniques

Following tools were used:

- Self made semi-structured questionnaire: It was the major tool of the study, used by researcher for collection of data to assess the knowledge and attitude. This contains both open- and close-ended questions. This tool was prepared through help of review of literature and reviewing topic on HIV/AIDS in secondary and senior secondary school syllabus.
- Likert scale: The attitude was measured using five-point Likert scale. It is a type of psychometric response scale often used in questionnaires and is the most widely used scale in survey research. When responding to a Likert questionnaire item, respondents specify their level of agreement to a statement.

All the secondary and senior secondary schools of urban and rural field practice area of Geetanjali Medical College were identified and visited.

RESULTS

The study was conducted in both urban and rural area. The study subjects were teachers from 20 secondary and senior secondary schools, from both government and private schools. Universally all 170 teachers teaching class IX onward were included in the study. Table 1 shows that majority of teachers (60%) were from urban schools and 40% of teachers were from the rural schools. There was slight variation in urban and rural schools where males dominated with 75% in rural area and females dominated with 83.3% in urban area. Major source of knowledge was found to be TV/radio (Table 2). Majority of teachers (57.6%) were females and 42.4% were males. Majority 84 teachers knew that HIV transmits through sexual route (Table 3). 105 teachers responded correctly in favor of screening and diagnosis of HIV is done by blood test (Table 4). Observations of this study reveal that maximum respondents correctly identified that being faithful to single

Table 1: Distribution of teachers according to study area

Study area	Sex		Total (%)
	Female (%)	Male (%)	
Urban	83 (83.33)	19 (16.6)	102 (60)
Rural	15 (25)	53 (75)	68 (40)
Total	98 (100) [57.6%]	72 (100) [42.4%]	170 (100) [100%]

partner is a preventive method against HIV spread (Table 5). In this study, small subjects incorrectly responded that HIV spreads by eating/drinking from the plates and cups used by HIV/AIDS infected patients (Table 6). Table 7 shows that teachers may face some difficulties in providing HIV/AIDS education in schools. The majority of teachers thought that they were face difficulty in talking about sex-related issues in classroom with their students.

DISCUSSION

In our study, we were found that Majority of teachers (102) were from urban schools in our study. A higher proportion of the teachers (90) were from government school as compared to private school teachers. In our study, 26 teachers responded correctly that HIV can be transmitted from infected mother to child during pregnancy and delivery in our study. In our study common misconceptions regarding HIV/AIDS among teachers were, HIV/AIDS is only the disease of foreigners/sex workers (43). A small percentage (1-7%) thought that HIV may spread by eating/drinking from the plates and cups used by HIV/AIDS infected patients, by shaking hands/hugging/living with HIV/AIDS patient, by mosquito and other insect bites, by sitting/sleeping on the bed used by HIV/AIDS patients.

Table 2: Distribution of teachers according to source of knowledge

Source	Number of teachers (*n*=170)
Spouse/relatives/friends	15
Health personnel	32
TV/radio	95
Newspapers/magazines/posters	28

Table 3: Distribution of teachers according to knowledge about most common route of HIV transmission in India

Most common mode of HIV transmission in India	Number of teachers (*n*=170)
Heterosexual route	10
Blood transfusion/mother to child	26
Piercing nose/ear, tattooing/HIV contaminated needles	08
IDU	10
Not responded	32
Unsafe sex	84

HIV: Human immunodeficiency virus, IDU: Injection drug use

Table 4: Distribution of teachers according to knowledge about screening test used for diagnosis of HIV

Screening test used for diagnosis of HIV	Number of teachers (*n*=170)
Blood test	105 (63.8)
Urine test	50 (18.8)
Stool test	03 (0.7)
Not responded	12 (16.7)

HIV: Human immunodeficiency virus

In our study, 26 teachers responded correctly that HIV can be transmitted from infected mother to child during pregnancy and delivery in our study. In our study common misconceptions regarding HIV/AIDS among teachers were, HIV/AIDS is only the disease of foreigners/sex workers. A small percentage (1-7%) thought that HIV may spread by eating/drinking from the plates and cups used by HIV/AIDS infected patients, by shaking hands/hugging/living with HIV/AIDS patient, by mosquito and other insect bites, by sitting/sleeping on the bed used by HIV/AIDS patient.

Table 5: Distribution of teachers according to knowledge about prevention of HIV/AIDS transmission

Preventive methods	Yes	No	Don't know
Being faithful to single partner	160	17	-
Consistent and proper use of condoms	130	19	21
By using disposable needles, syringes	136	20	14
Screening blood for HIV before transfusion	129	26	15

HIV: Human immunodeficiency virus, AIDS: Acquired immunodeficiency syndrome

Table 6: Distribution of study population according to misconceptions regarding HIV/AIDS

Misconceptions	Yes	No	Don't know
Eating/drinking from same plates and cups of HIV/AIDS patients	17	143	10
Shaking hands/hugging/living with HIV/AIDS patient	15	150	05
By mosquitoes and other insect bites	19	136	15
HIV/AIDS is only the disease of foreigners and sex workers	43	102	25

HIV/AIDS: Human immunodeficiency virus/acquired immunodeficiency syndrome

Table 7: Difficulties to be found by teachers with respect to HIV/AIDS education (if responsibility given)

Reason	Number of teachers (%) (*n*=170)
Lack of adequate knowledge	32
Lack of materials	29
Lack of time	24
Difficulty in talking about sex related issues	12
Affect student teacher relationship	40
No training	18
Lack of motivation	15

HIV: Human immunodeficiency virus, AIDS: Acquired immunodeficiency syndrome

Our findings were in similar with the study of Ghosh and Lohmann et al.(2008) in the northwestern Himalayas.[2] Different studies observed that considerable number of the respondents were not aware that HIV infection cannot transmit by mosquito bites shaking or touching hands (27.4%).[9,10] Ghosh et al. (2003)[8,7] observed that 25% teachers did not know that HIV cannot be contracted by mosquito bites. In congruence to our finding studies conducted by Ramesh (2008)[14] found that 80.7% and 76.9% respondents knew that HIV may transmit from an infected mother to the fetus, respectively.

In this study, we were included teachers of rural and urban areas of Udaipur zone, which were near about to our institution. By the help of this study, we were able to find out the common problem regarding sex education and inadequate knowledge of HIV transmission. Limitation of our study was a small sample size and not involvement of common illiterate population of this area to assess the knowledge of HIV/AIDS.

CONCLUSION

In our study, we were found that the teachers do not have adequate knowledge, skills and confidence for teaching the sexual issues; therefore, the teachers found to be shy and sometimes embarrassed. The teachers also admitted that they do not know appropriate techniques to impart knowledge and skills in regards to sexual health.

REFERENCES

1. Fauci AS, Lane HC. Harrison's Principles of Internal Medicine. 15th ed. USA: McGraw-Hill Companies; 2001. p. 1853.
2. Barre-Sinoussi F, Chamaret S, Montagnier L. Isolation of a T-Lymphotropic retrovirus from a patient at risk for acquired immune deficiency syndrome (AIDS). Science. 2001;220(4599):868-71.
3. Karki KB. HIV/AIDS Education at Schools in Nepal: Students, Teachers and Parents Perceptions and Preferences. International Conference on AIDS. July 11-16; 2004. p. 15.
4. Bankole OM, Mabekoje OO. Awareness and opinions about HIV/AIDS among secondary school teachers in Ogun state, Nigeria. Sci Res Essay. 2008;3:245-53.
5. Lohmann T, Tam P, Hopman WM, Wobeser W. Knowledge of and attitudes towards HIV/AIDS among school teachers in Belize. Int J Infect Dis. 2009;13(5):e228-35.
6. Mazloomy SS, Baghianimoghadam MH. Knowledge and attitude about HIV/AIDS of schoolteachers in Yazd, Islamic Republic of Iran. East Mediterr Health J. 2008;14(2):292-7.
7. Ghosh M. ICT and AIDS literacy: A challenge for information professionals in India. Electron Libr Inf Syst. 2007;41(2):134-47.
8. Das A, Babu GR, Ghosh P, Mahapatra T, Malmgren R, Detels R. Epidemiologic correlates of willingness to be tested for HIV and prior testing among married men in India. Int J STD AIDS. 2013;24(12):957-68.
9. Ballard DJ, White DM, Glascoff MA. AIDS/HIV education for preservice elementary teachers. J Sch Health. 1990;60(6):262-5.
10. Weiss RA, Adler MW, Jones SL. HIV and AIDS: The changing face of HIV and AIDS. Br Med Bull. 2001;58:223.
11. NACO. NACPIII to Halt and Reverse the Epidemic in India. 2012. Available from: http://www.nacoonline.org/upload/Publication/Strategy. [Last accessed on 2013 Nov 20].
12. Mann J. Global AIDS: Epidemiology, Impact, Projections, Global Strategy, AIDS Prevention and Control: World Summit of Ministers of Health on Programmers for AIDS Prevention. London. 1988. p. 7-10.
13. UNAIDS. Landmark Delhi High Court Decision Recognizes Inappropriate Criminalization as a Barrier to Health, Human Rights and Dignity. 7 July; 2009.
14. Ramesh BM, Moses S, Washington R, Isac S, Mohapatra B, Mahagaonkar SB, et al. Determinants of HIV prevalence among female sex workers in four south Indian states: Analysis of cross-sectional surveys in twenty-three district. AIDS. 2008;22(5):35-44.

How to cite this article: Luthra R, Luthra K, Dixit M. Knowledge about human immunodeficiency virus/acquired immune deficiency syndrome among school teachers in Udaipur, Rajasthan. Int J Med Sci Public Health 2017;6(6):1086-1089.

Source of Support: Nil, **Conflict of Interest:** None declared.