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Original Article

A profile of HIV infection / AIDS related knowledge among female students of Kanpur district, India

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Abstract

Introduction: HIV/AIDS, a social disease took pandemic form within a short span of time affecting 40 million people through the globe. Adults of the developing countries are the main victim of the disease contributing to 95% of the total world's HIV infection and 90% death. In the absence of effective cure to this disease, it can be very easily prevented by IEC activities regarding behavioural changes.

Objectives: To assess the level of correct knowledge about HIV/AIDS and the misconceptions associated with it among girl students of Kanpur district.

Materials and methodology: This is a baseline cross-sectional, questionnaire based study conducted among female students of technical and non-technical institutions of Kanpur district UP in 2001.

Results: Though the causative agent and correct mode of acquiring infection was not known to most of the students yet significant proportion had adequate knowledge about the vulnerable age group that is youth as stated by (72.90%) of the respondents. Knowledge regarding correct modes of transmission of infections (82.78%), high risk groups (82.88%) and common symptoms of disease (80.11%) was satisfactory.

Discussion: The finding of the present study was satisfactory and consistent with previous research findings. In paradox to their knowledge, deeply rooted misconception related to transmission of infection also surfaced and was more prevalent in technical than non technical students. These misconceptions need to be corrected to prevent the spread of the infection.

Conclusion: The knowledge of the study group was quite satisfactory for most of the variables like vulnerable age, modes of transmission, sexual and behavioural practices and common symptoms of the disease. However, misconceptions were also very high and almost equally present in technical and non-technical students. Though, as already stated, the technical students had better knowledge than non-technical ones.

Key words: Knowledge about HIV/AIDS

The HIV/AIDS pandemic continues its expansion across the globe with approximately 1600 new cases occurring every day. According to the estimates of the joint United Nation's Programme on HIV /AIDS and the W.H.O., the number of people living with HIV has gone to over 40 millions by the end of 2001. More than 95 % of all HIV infected people now live with developing world (Africa alone is home to 70% of the HIV infected people) and 95% of all deaths due to HIV/AIDS largely among the adults have occurred in the developing world.

The first case in India was detected in 1986 in commercial sex workers (CSW) in Tamil Nadu. Since then the HIV has been reported from all states and territories in rising numbers.

The most important tool for prevention and control of HIV/AIDS is detection of high risk behaviour groups and information, education and communication (IEC) activities to bring about changes in attitude, behaviour and practices related to high risk behaviours and HIV infection.

The females other than commercial sex workers are usually innocent victims of this menace. Therefore need to strengthen knowledge and awareness component among females in vulnerable age groups i.e. adolescents in early sexually active age is of profound importance.

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The growing adults are anxious to know more about sex and no illegitimate source of information can help developing sound attitude towards sex and preventing risky behaviours. Since no such type of study was conducted in the district and students have not been exposed to formal education sessions about HIV/AIDS, the present study was designed to assess level of knowledge about HIV infection and AIDS related knowledge among female students of the colleges so that effective IEC activities could be framed and organized for enhancing the knowledge and strengthening the control activities regarding HIV/AIDS in Kanpur district.

Material and methods

Assuming better knowledge status of technical than non technical students about AIDS, the present base line cross sectional study was conducted in female students of the technical institutes which included medical college, engineering colleges and CSA university of Agriculture and technology and non technical graduate and post graduate colleges of Kanpur district. Because of less number of female students in technical institutions, all the 490 females from four technical institutions were tried to involve but only 450 fully cooperated and actively participated in this study. To compare the findings with non-technical students, same numbers of non technical students were also involved from randomly selected three non technical institutions. With the consent and active participation of Principals and other faculty members of the institutions, the available female students were taken in to confidence. The purpose and motive of the Study and the importance of their response was explained to them. After getting them convinced and fully satisfied a well designed and pre-tested proforma was given to them and information was collected with all confidentiality. The data was compiled, analyzed and interpreted. Statistical tests of significance were applied wherever required.

Results and Discussions

Youth as a high risk group was known to majority of the students (72.90%). Technical students had significantly better understanding 82.88% as compared to the non-technical students 62.88% (Table 1).

This finding is consistent with the findings of Mathur et al[1], 88.7% of the first year MBBS students and 82.27% of the 2nd year students were having the same opinion. The observation made by Park[2] is also in conformity with this study.

Though the acquired nature of the disease is already retained in its name "Acquired Immuno-deficiency Syndrome (AIDS)", yet most of the students did not respond correctly. Only 14.78% of the students were aware about it and the technical and non-technical difference was very marginal.

Viral aetiology of the disease was known to 62.55% of the students. Technical students had significantly better knowledge (74.00%) than the non-technical students (51.11%) (Table2).

This is in conformity with the findings of Kubde et al[3] 69% of the respondents knew about viral aetiology of the disease. Bansal et al[4] also has the same findings. Benjamin et al[5] observed that 89% doctors, 61% lab technicians, 52% paramedical professionals, 28% attendants and 9% of the sweepers had correct knowledge about cause of HIV/AIDS.

Saini et al[6] (1992), Sehgal[7] and Rahte et al[8] observed the correct knowledge of aetiology and of acquiring AIDS among students ranging from 10% to 36.3%.

Knowledge of the respondents about different modes of transmission of infection ranged between 57.78% to 82.78%. Technical students were more aware than non-technical students for all the different methods of transmission of viruses except for homosexuality where ratio was just reverse (Table3). Though misbelieve, reflected in their positive response towards incorrect modes of transmission was also highly prevalent ranging between 42.11% to 65.33% and more so in technical than non technical students.

The finding is consistent with Amalraj et al[9] where 96% agreed upon transmission via blood transfusion, contaminated needles and syringes and from infected mothers to their babies. Vasundhara et al[10] found sexual route 96.00% & 98.24%, blood borne 94.28% & 89.47% among medical students and in-service doctors respectively**.** Kubde et al[3] quoted 63.70% of the nursing students had correct knowledge about its mode of spread. Garg et al[11] and Benjamin et al[5] also had the similar finding.

Understanding of the respondents regarding different high risk behavioural groups was satisfactory, ranging from the minimum of 49.33% for the IV drug abusers to maximum of 82.88% for the persons having sex with multiple partners (Table 4). Technical students were found superior in knowledge than non-technical counterparts.

Francis et al[12] in his study observed having sex with multiple partners was known to 89% population, 18.5% agreed that only sex workers get AIDS and 11.8% felt that homosexuals could get AIDS. Saini et al[6] found that 98% felt it can be contracted through

prostitutes. Odujinrin et al[13] found that only 54.6% and 51.5% identified homosexuals and IV drug abusers at high risk. Similar findings were reported by Coulaud[14] and Diarra et al[15] also.

The most common symptom as stated by majority of the students (80.11%) was weight loss and least common symptom was enlargement of glands (47.88%) (Table 5). Except for weight loss, in which there was no difference, otherwise the status of knowledge in technical students was significantly better than the non technical students.

Dobe[16] found that 40-60% of the students were aware of clinical manifestation of AIDS.

Porter[17] observed that majority of adults knew that fever and weight loss were common manifestations while only one quarter or less were aware that diarrhoea, night sweats or swollen lymph nodes are also frequent manifestations of HIV infection. Roy et al[18] quoted similar results in her study on general practitioners. Nair et al[19] also observed that the percentage of respondents knowing oral manifestations of AIDS ranged from 11-78%.

Table 1: HIV/AIDS knowledge of respondents about most commonly affected age group

Commonly affected age group	Technical		Non-technical		Total	
	No	%	No	%	No	%
Infants	45	10.00	76	16.89	121	13.44
Child	5	1.12	85	18.89	89	10.00
Youth	373	82.88	283	62.89	656	72.90
Old age	27	6.00	6	1.33	33	3.66
Total	450	100.0.	450	100.00	900	100.00

$X^2_{(2)}=84.10, P<0.001$

Table 2: HIV/AIDS knowledge of respondents about aetiology of disease

Variables	Technical		Non-technical		Total	
	No	%	No	%	No	%
(a) Mode of acquiring infection						
Hereditary	76	16.90	96	21.30	172	19.11
Acquired	85	18.88	48	10.70	133	14.78
Both	289	64.22	306	68.00	595	66.11
Total	450	100.00	450	100.00	900	100.00
(b) Causative agent						
Virus	333	74.00	230	51.11	563	62.55
Bacteria	72	16.00	107	23.77	179	19.90
Not known	45	10.00	113	25.00	158	17.55
Total	450	100.00	450	100.00	900	100.00

(a) $X^2_{(2)}=13.10, P<0.01$. *(b) $X^2_{(2)}=54.93, P<0.001$*

Table 3: HIV/AIDS knowledge of respondents about correct modes of transmission

Modes of transmission	Technical		Non-technical		Total	
	No	%	No	%	No	%
(a) Correct						
Blood transfusion	450	100.00	198	44.00	648	72.00
Mother to new born	373	82.80	147	32.80	520	57.78
Sex with multiple partners						
- Heterosexuals	384	85.40	361	80.40	745	82.78
- Homosexuals	234	52.10	298	66.20	532	59.11
(b) Incorrect						
Mosquito bites	296	67.70	106	23.50	402	44.67
Shaking hands	289	64.20	196	43.50	485	53.90
Sharing common utensils	360	80.00	228	50.77	588	65.33
Hugging	379	84.20	92	20.51	471	52.33
Kissing	273	60.60	106	23.50	379	42.11

(b) $X^2_{(4)}$=70.83, P <0.001

Table 4: HIV/AIDS knowledge of respondents about high risk groups

High risk groups		Technical		Non-technical		Total	
		No	%	No	%	No	%
Sex with multiple partners	Vaginal sex	384	85.40	362	80.44	746	82.88
	Anal sex	356	79.11	270	60.00	625	69.44
Presence of S.T.Ds.		374	83.11	270	60.00	644	71.55
Sex workers		353	78.66	273	60.00	526	58.44
Pre-marital/ extra-marital sex		284	63.10	252	56.00	536	59.55
I.V. drug abusers		266	59.11	178	39.66	444	49.33

$X^2_{(5)}$=12.13, P <0.05.

Table 5: HIV/AIDS knowledge of respondents about correct symptoms of illness

Symptoms of illness	Technical		Non-technical		Total	
	No	%	No	%	No	%
Weight loss	356	79.12	365	81.13	721	80.11
Persistent diarrhoea	284	63.12	187	41.57	471	52.33
Persistent fever	293	65.12	144	32.07	437	48.55
Enlargement of glands	329	73.15	102	22.88	431	47.88

$X^2_{(3)}$= 90.53, P <0.001.

Conclusion

It is clear from the above study that most of the students had adequate knowledge about vulnerable age group that is youth as stated by 72.90% of the respondents. Acquired nature of the disease and causative agent was not known to most of the students. However knowledge regarding correct mode of transmission of infection, high risk group and common symptom of disease was satisfactory. But on the other hand misconceptions were also highly prevalent reflected in the form of incorrect answers like kissing, hugging and using common utensils as a mode of transmission and no way was it less prevalent among technical than non-technical students. Over all difference in the knowledge status of technical and non-technical students was significant and it was invariably seen for most of the variables.

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