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Original Article

ADOLESCENCE AWARENESS: A BETTER TOOL TO COMBAT HIV/AIDS

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ABSTRACT

Adolescents are exposed to the risk of being victims of HIV/AIDS, mostly because of a low level of awareness of HIV/AIDS and inadequate access to HIV prevention and treatment services. School education has been described as a 'social vaccine', and it can serve as a powerful preventive tool. The objective is to assess awareness of HIV/AIDS amongst adolescents of District Bareilly. The cross-sectional study involved 341 students, aged 11-19 years. A study instrument was used to assess study subjects' level of awareness regarding modes of transmission, preventive and curative measures of HIV/AIDS and the attitude towards PLWHA. Chi- square test was used to analyze data. The awareness regarding modes of transmission, methods of prevention and treatment was found to be significantly higher among boys as compared to girls (P <.001). There is a low level of awareness of HIV/AIDS amongst adolescents of District Bareilly. The challenge lies in developing programmes to spread awareness and to induce behavioral changes among them.

Key words: Awareness, HIV/AIDS, adolescents

INTRODUCTION

The Acquired Immune Deficiency Syndrome (AIDS) caused by Human Immuno-deficiency Virus (HIV) remains the most serious of infectious disease challenges to public health. The United Nations adopted to halt and reverse the spread of HIV/AIDS as one of its Millennium Development Goals. The estimated number of persons living with HIV and deaths due to AIDS worldwide in 2007 was 33.2 million and 2.1 million respectively. Nearly ninety five percent of the global total, live in the developing world. Approximately 3.7 million people in India were living with HIV in 2006. India's epidemic continues to affect large numbers of people, mostly because of a low level of awareness of HIV/AIDS and inadequate access to HIV prevention and treatment services. (1) HIV/AIDS is mainly affecting the young adults in the age group of 15–24 years thus retarding the economic growth of the country. Adolescents aged 10-19 years of age accounting for nearly 23% of the population of India are exposed to the risk of being victims of HIV/AIDS. (2)

This is the time when they get interested in sexual relationships. Immature reproductive tracts make them more susceptible to HIV/AIDS. Discussing sex has also been a taboo among them. With the influence of media and the breakdown of traditional family structures, and in the absence of organized institutions for imparting sex education, they tend to learn about sexual and reproductive health from unreliable sources resulting in perpetuation of myths regarding safe sex and reproductive health.

Studies conducted in urban and rural parts of India have shown low levels of awareness among school going adolescents. [3, 4] Majority of them study in the secondary school level. [5]

The challenge lies in developing programmes to spread awareness and to induce behavioral changes among them. The School Adolescent Education Programme has been focused to create awareness of HIV/AIDS and to inform adolescents, about the dangerous consequences of unsafe sex and encouraging them to use condoms.

Researches carried worldwide have shown that participating in schooling is a critical factor in protecting young people, and especially girls, from HIV infection. [1] Thus, school education has been described as a 'social vaccine', and it can serve as a powerful preventive tool. There is further evidence that HIV and AIDS education does not result in an earlier age of sexual debut, and in fact it may delay the initiation of sexual activity and encouraging protective behavior upon sexual initiation. [2]

Offering HIV/AIDS awareness education and training to these school going students as well to their parents and teachers is a major challenge. As children are valuable resources for the future of a country, they should be equipped with ample amount of information so as to take decisions about sexuality and protect themselves and their counterparts from the disease. Hence the present study was undertaken to assess the level of awareness regarding preventive and curative measures of HIV/AIDS among secondary school students of Bhojipura Block, district Bareilly .

MATERIAL AND METHODS

The cross sectional study was carried out among secondary school students of Bhojipura Block of Bareilly district, Uttar Pradesh over a period of three months (December 2010 to February 2011). Adolescents of age 11-19 years in the selected schools were surveyed and comprised the study unit in the present study.

A total of 341 students of 9th, 10th, 11th and 12th standard participated in the study. The response rate of students was 100 percent. A structured pretested and predesigned questionnaire consisting of close ended questions was used to assess study subjects' level of awareness regarding modes of transmission, preventive and curative measures of HIV/AIDS and the attitude towards PLWHA. Written consent was obtained from the principals of the respective schools after explaining to them the purpose of the study.

Table 1: Age and gender wise distribution of study subjects

Age (years)	Male No. (%)	Female No. (%)	Total No. (%)
<15	27 (7.9)	11 (3.2)	38 (11.1)
15-18	196 (57.5)	96 (28.2)	292 (85.6)
>18	9 (2.6)	2 (0.6)	11 (3.2)
Total	232 (68.0)	109 (32.0)	341 (100)

Data entry and statistical analysis were performed using the Microsoft Excel and SPSS windows version 14.0 software. Tests of significance like Pearson's Chi- square test were applied to find out the results. P values <0.05 were considered significant for outcome variables.

Table 2: Distribution of respondents according to source of information regarding HIV/AIDS

Source of Information	Male (n=232) No. (%)	Female (n=109) No. (%)	Total (n=341) No. (%)
Television	134 (39.3)	69 (20.2)	203 (59.5)
Radio	109 (32.0)	51 (15.0)	160 (46.9)
Newspaper	75 (22.0)	30 (8.8)	105 (30.8)
Road side play	49 (14.4)	3 (0.9)	52 (15.2)
NGO	39 (11.4)	12 (3.5)	51 (15.0)
Friend	85 (24.9)	23 (6.7)	108 (31.7)

RESULT

Out of 341 respondents studied, 232 (68.0%) respondents were males and 109 (32.0%) were females. Overall, 38 (11.1%) respondents were less than 15 years, 292 (85.6%) respondents were between 15-18 years and 11 (3.2%) respondents

were above 18 years of age. The mean age was 15.9 ± 1.5 years (Table 1).

All the students had heard about HIV/AIDS. Two hundred and three (59.5%) students had heard about HIV/AIDS from television while 160 (46.9%) mentioned radio as main source of information to them (Table 2).

The awareness regarding modes of transmission (unprotected sexual intercourse, infected blood transfusion, sharing of needles and syringes and vertical transmission of HIV from infected mother to baby) was found to be significantly higher (P <0.05) among boys as compared to girls. Only 26.1% of the students could name homosexual intercourse as a mode of transmission (Table 3).

Table 3: Distribution of respondents according to awareness regarding modes of transmission of HIV/AIDS

Modes of Transmission	No. of aware students (%)			Chi-Square (df)	P-value
	Male (n=232)	Female (n=109)	Total (n=341)		
Unprotected sexual intercourse	190 (55.9)	70 (20.5)	261 (76.5)	12.79 (1)	<0.05
Homosexual intercourse	71 (20.8)	18 (5.3)	89 (26.1)	7.633 (1)	<0.05
Infected Blood transfusion	179 (52.5)	68 (19.9)	247 (72.4)	8.102 (1)	<0.05
Sharing needles/syringes/blades	194 (56.9)	68 (19.9)	262 (76.8)	18.787 (1)	<0.05
HIV infected Mother to baby	134 (39.3)	51 (15.0)	185 (54.3)	3.595 (1)	>0.05

Nearly one-fifth of the students had a false notion that mosquito bite could transmit the disease (Table 4).

Table 4: Distribution of respondents according to myths regarding HIV/AIDS

Myths	No. of students with 'Yes' Responses (%)			Chi-Square (df)	P-value
	Male (n=232)	Female (n=109)	Total (n=341)		
Mosquito bite can spread HIV/AIDS	51 (15.0)	19 (5.6)	70 (20.5)	0.942 (1)	>0.05
HIV/AIDS can spread through kissing	48 (14.1)	11 (3.2)	59 (17.3)	5.82 (1)	<0.05
HIV/AIDS can spread through touching an infected person	36 (10.6)	11 (3.2)	47 (13.8)	11.226 (1)	<0.05
HIV/AIDS can spread through sweat	51 (15.0)	16 (4.7)	67 (19.6)	2.506 (1)	>0.05
HIV/AIDS can spread through working together	20 (5.9)	13 (3.8)	33 (9.7)	0.927 (1)	>0.05
Sharing same clothes can spread HIV/AIDS	33 (9.4)	15 (4.4)	47 (13.8)	0.013 (1)	>0.05
Eating together can spread HIV/AIDS	42 (12.3)	20 (5.9)	62 (18.2)	5.669 1)	<0.05
Living together can spread HIV/AIDS	39 (11.4)	13 (3.8)	52 (15.2)	11.177 (1)	<0.05
HIV/AIDS can spread through common / public toilet	29 (8.5)	10 (2.9)	39 (11.4)	0.81 (1)	>0.05

The awareness regarding methods of prevention of HIV/AIDS was also significantly higher (P <.001) among boys as compared to girls. Only 19.1% girls and 59.5% boys had knowledge about condoms as means of protection while 12.0% girls and 47.5% boys stated that HIV/AIDS can be prevented by having a single sexual partner (Table 5).

Only 39.6% students knew the difference between HIV and AIDS. Nearly half of the students thought that HIV/AIDS can be cured. Less than half of the students thought that PLWHA should be socially supported, sympathized and cared (Table 6).

Table 5: Distribution of respondents according to awareness regarding methods of prevention of HIV/AIDS

Methods of Prevention	No. of aware students (%)			Chi-Square (df)	P-value
	Male (n=232)	Female (n=109)	Total (n=341)		
Using condom during each intercourse	203 (59.5)	65 (19.1)	268 (78.6)	34.229 (1)	<0.001
Not having sex with prostitute	116 (34.0)	27 (7.9)	143 (41.9)	19.386 (1)	<0.001
Having a single sexual partner	162 (47.5)	41 (12.0)	203 (59.5)	31.941 (1)	<0.001
Abstaining from homosexual intercourse	76 (22.4)	12 (3.5)	88 (25.9)	18.322 (1)	<0.001
Screening of blood prior to transfusion	178 (52.2)	69 (20.2)	247 (72.4)	6.690 (1)	>0.001
Using sterilized/disposable syringes	179 (52.5)	56 (16.4)	235 (68.9)	23.005 (1)	<0.001
Screening of pregnant mother for HIV	105 (30.8)	37 (10.9)	142 (41.6)	3.906 (1)	>0.001

Table 6: Attitude of respondents towards people with HIV/AIDS

Responses (Yes)	Male (%) (n=232)	Female (%) (n=109)	Total (%) (n=341)	Chi-Square (df),	P-value
Awareness regarding the difference between HIV +ive and AIDS?	104 (30.5)	31 (9.1)	135 (39.6)	15.834 (1)	<0.001
Awareness regarding the symptoms of AIDS?	105 (30.8)	28 (8.2)	133 (39.0)	13.049(1)	0.001
Knowledge about HIV/AIDS being cured	106 (31.1)	69 (20.2)	175 (51.3)	12.359 (1)	>0.001
PLWHA should be kept separate, isolated from others	84 (24.7)	48 (14.1)	132 (38.8)	9.130 (1)	>0.001
PLWHA should be socially supported, sympathized and cared	113 (33.2)	47 (13.8)	160 (47.1)	2.602 (1)	>0.001

DISCUSSION

In the present study all the students had heard about HIV/AIDS which is similar to the observations of a study carried out by Goyal R C et al where study group was rural population. [3] However this was much higher than finding of Ghosh Satyajeet et al [4]. This may be because of intensified IEC campaign in last 8-10 years In our study a higher proportion of students mentioned television (59.5%) and radio (46.9%) as main sources of information to them. These observations show the strength and effectiveness of media as source of information and very poor effort by health personnel which requires being strongly motivated. Similar findings were observed by R Amalraj Edwin [5] and Poddar A K et al [6]. This is comparable to the Delhi study where majority of the students had heard about HIV/AIDS from television and radio. [7]

The awareness regarding modes of transmission and methods of prevention of HIV/AIDS was found to be significantly higher among boys as compared to girls. Thus adolescent girls lacked awareness regarding HIV/AIDS. This is compatible to the findings reported in the studies conducted among secondary school students of Kolkata [8] and Maharashtra [9] respectively. Sunder N et al [10] conducted a survey in 7 urban colleges and found that 59% females indicating that HIV transmission could be prevented by using condom. This difference is probably because our study has been conducted in rural areas in Bareilly and Sunder N conducted this study in urban colleges. About prevention through condom our finding are supported by Francis P T et al[11] who observed that 79% students thought that use of condom decrease the risk of getting AIDS .

Our study revealed that 20.5% of the students believed that mosquito bite could transmit the disease while 18.2% students thought that it could spread by sharing meals. Similar findings have been reported in the study conducted among school adolescents of Gujarat. [12] Studies of Sunder N et al [10] and Francis P T [11] also strengthen these facts.

In the current study 59.5% students stated that HIV/AIDS can be prevented by having a single sexual partner. This is similar to the observations reported among school adolescents of Gujarat. [12]

Only 39.6% students in our study knew that HIV and AIDS are not synonymous. This is in conformity to findings (35%) reported in a study among school adolescents of Gujarat. [12] Nearly half of the students thought that HIV/AIDS can be cured. A study carried among adolescent girls of rural areas of Jammu also found similar observations. [13] Less than half of the students thought that PLWHA should be socially supported, sympathized and cared. Favorable attitudes towards PLWHA were also found among senior secondary school children of Delhi. [7]

Impact of social exposure is clearly visible in all areas of awareness among males in comparison to females.IEC programs should be undertaken with regard to HIV/AIDS, safe sex and avoidance of high risk behavior in schools to increase the awareness of adolescents especially for females as they are less aware as well as more vulnerable. Significant improvement between pre-test and post-test knowledge levels after health education regarding HIV/AIDS has been reported. [14, 15]

RECOMMENDATIONS

After this study following recommendations are relevant for the improvement of HIV/AIDS related awareness in adolescent population:

1. The reproductive health education should be part of curriculum in all schools. These should be classroom based education programme on AIDS/ HIV, beginning from secondary classes onwards and a class teacher should be properly trained for educating the students effectively.
2. Seminars, talks and debates to be organized in different cross sections during school age.
3. Exhibition of cartoons, photos and painting competition on AIDS related theme.
4. To promote students for active participation in AIDS awareness campaigns as Red Ribbon Express and World AIDS Day programmes.

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