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Knowledge, attitudes and practices regarding HIV/AIDS among college going students of rural West Bengal, India

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Abstract: Reproductive health is a serious concern not only for adults but also for adolescents. The present study was conducted on students of Colleges from January 2014 to November 2014 to evaluate their KAPs regarding HIV/AIDS, living in rural areas of the State of West Bengal, India. Pre-coded questionnaire was used to generate the data and analysis was made by SPSS version 20.0. F-value was calculated and p-value < 0.05 was considered statistically significant. Results show that all the students had heard about AIDS before the interview but the knowledge about transmission, prevention and control about HIV/AIDS was quite low. Negative attitudes towards HIV/AIDS were much more while practices related to HIV/AIDS were significantly risk full. The awareness level of students on physical changes during adolescences is significantly higher in Science students followed by Arts students, knowledge about HIV/AIDS and its mode of transmission is significantly greater in Science students, but higher level of misconceptions is found among Arts students. The current study highlighted that in spite of higher level of knowledge about HIV/AIDS transmission and prevention in the studied students, appreciable level of misbelieves regarding transmission of HIV/AIDS was still prevailing among both Science and Arts students which may be the routes of stigma associated with the disease and the huge gap between awareness and attitude towards HIV/AIDS.
Keywords: Adolescent, Awareness, Infection, Misconception, Reproductive Health

INTRODUCTION

In many developing countries, HIV prevalence is higher in urban than in rural areas with the youth contributing to the high prevalence [1]. HIV/AIDS is a global pandemic. The epidemic is characterised by heterogeneity and mainly depends upon the culture, customs, and behavioural pattern of a specific population. Promising development have been seen in recent years in global effort to address the AIDS epidemic including increased access to effective treatment and prevention programmes [2]. The interventions to control the HIV epidemic in India are being exerted via National AIDS control programme and currently NACP IV is going on throughout the country. Goal of NACP IV is comprehensive care, support and treatment to all persons living with HIV/AIDS. India has successfully achieved the 6th Millennium Development Goal of halting and reversing the HIV epidemic. National adult (15–49 years) HIV prevalence is estimated at 0.26 percent (0.22%–0.32%) in 2015 and it is 0.30 percent among males and at 0.22 percent among females. The total number of people living with HIV (PLHIV) in India is estimated at 21.17 lakhs in 2015 compared with 22.26 lakhs in 2007 [3].

Prevalent gender inequalities in Indian society leave girls and young women socially and economically disadvantaged, greatly increasing their HIV vulnerability. Early marriage poses risks to young women as their reproductive tracts are not fully developed and therefore prone to tearing during sexual activity. This is especially relevant as 50% of women are married by 18 years in India [4]. Social norms, economic dependence and fear of violence often prevent young women from insisting on prevention methods, such as use of condoms, with their sexual partners. A significant proportion of HIV infections in India occur in women who are married and have been infected through unprotected sex with an infected spouse [5]. Stigma alleviation and prevention of entry of infection from High risk population to general population needs higher level of awareness about the disease and positive attitude of general population towards HIV/AIDS. Many studies conducted in India have shown variable level of knowledge and overall negative attitude to HIV affected people. Till date no ART is curative for AIDS and no vaccine is available. It is only health education and behavioural change will act

as vaccine for the diseases. Higher level of awareness is prerequisite for behavioural change and positive attitude towards HIV/AIDS. Stigma and denial undermine efforts being made to increase the reach of interventions, care support and treatment services to HIV/AIDS [6].

According to World Health Organization, those between the ages of 10 and 24 are young people. This age group is composed of two overlapping sub-groups: "adolescents" (aged 10–19) and "youth" (aged 15–24). More than half of the world population is under 25years of age and over the 80 percent(1.5 billion) are in the age group of 10-24years,and most of them live in developing countries [7]. It is a stage where fears, apprehensions, anxieties and misgivings develop. It is also a stage when context of friendship and relationship undergo change and conflicts and pressures emerge and may make youth/adolescents vulnerable to abuse, exploitation and dangers. Youth behaviour during adolescence could range from exploring sexual relationships to alcohol, tobacco and other substance abuse. Peer pressure may lead them to practice unprotected sex, dropout from school or suffer from eating disorders or start living dangerously. A large number of youths have set orientations to sexual behaviour. They are not comfortable with their sexuality and are not able to manage it responsibly. They do not understand that sexuality does not necessarily mean sexual intercourse. It refers to the sexual make up of an individual including feelings, values, perceptions and attitudes and provides a clear understanding of sexual options and their consequences. The adolescents caught unaware of these changes may lead to serious mat adjustments and various kinds of complexities, confusion, tension unrest and become problematic to the family and to the society at large. During this period, the social needs of the individual also undergo modification.

There is a great diversity of challenges faced by young people in regard to their reproductive health, and the issues of critical importance to them vary greatly depending on their cultural and geographical backgrounds. These issues include forced early marriage, lack of opportunities, unwanted pregnancy, early childbearing, the spread of HIV/AIDS and other sexually transmissible infections (STIs), and female genital mutilation. For all young people, however, the need for accurate information, non-judgmental counseling and affordable and accessible services are paramount in overcoming these challenges and helping them to avoid unwanted pregnancies, care for their sexual health and take advantages of education and other opportunities.

Objectives of the study

The objective of the study is to know the awareness level of the students about adolescent reproductive health and their knowledge, attitudes and practices regarding HIV/AIDS.

Methodology

The present study is based on primary data. Students studying in various under graduate degree courses were the sampling unit of this study. Paschim Medinipur District of West Bengal was purposely selected for the study due to its rural based economy. The study covered 240 college students selected on random bases from various Departments of Arts and Science of Narajol Raj College and Keshpur College. The data for the study have been collected through a structured questionnaire. Percentages were calculated for the back ground characteristics and ANOVA were employed to find out the significance level by using SPSS version 20.0.

RESULTS

Socio-demographic characteristics

In the study area, majority of the sample (Table-1) are below the age of twenty years (65.8%) and rest is above twenty years. The majority of the respondents were of general caste category in both arts and science students. As far as the religion of the students was concerned, nearly 54 percent of the respondents belonged to the Muslim religion, while rests were Hindus. Among the sample of arts students, an overwhelming are Muslims (63.1%). However, from this result it cannot be firmly confirmed that Muslim students have higher concentration in arts subject, because here other factors are not taken into consideration. Monthly family income of students was an important factor which gave impetus to higher education, as revealed clearly by the study. Among arts students, 33.0 percent were belonging more than Rs 10000 monthly family income, 42.5 percent were between Rs 5000 and Rs 10000, and 24.5 percent were below Rs 5000. On the other hand, there was an increasing trend for education in science subjects with the increase of monthly family income. It indicates that high income of the family in the native place induces higher education to the science stream. In the study area, 43 percent science students and 74 percent arts students are coming from joint families. This clearly indicates the domination of the nuclear families in the rural society and disappearance of joint-family system. It is quite interesting to note that among the sample, percentage of smart phone use (56%) is drastically higher among the science students while only 26 percent arts students are using smarts phone. It is also noted that only 3 percent of overall sample do not use any mobile. Among science students, only one fifth of students used internet per day below one hour, whereas one tenth of them used more than five hours per day. In

case of arts students, no one used internet more than five hours.

Table-1: Comparative distribution of Science and Arts students according to their socio-economic background

Variables		Science students	Arts students	Total
Age (years)	<20	55.2	77.4	65.8
	>20	44.8	22.6	34.2
Caste	General	56.2	48.1	53.3
	SC	16.4	40.6	27.7
	ST & other	27.4	11.3	19.0
Sex	Male	52.6	50.8	51.2
	Female	47.4	49.2	48.8
Religion	Hindu	55.7	36.9	46.2
	Muslim	44.3	63.1	53.8
Monthly family income (Rs)	<5000	16.2	24.5	20.3
	5000-10000	30.0	42.5	36.2
	>10000	53.8	33.0	43.5
Type of family	Joint	43.3	74.0	57.6
	Nuclear	56.7	26.0	42.4
Mobile phone use	Smart phone	56.0	25.6	40.1
	Ordinary mobile	42.6	68.1	56.9
	No mobile	1.4	6.3	3.0
Using internet per day	<1hour	21.0	36.0	28.2
	1 to 3 hours	40.0	46.0	43.0
	3 to 5 hours	24.7	18.0	22.8
	>5 hours	11.3	0.0	6.0
N		**125**	**115**	**240**

Knowledge of HIV/AIDS transmission, prevention and control

All the students had heard about HIV/AIDS but their sources of information varied. As illustrated in Figure 1 with multiple responses, 85.8 percent obtained their information on HIV/AIDS from sex education at school, 29.2 percent from the internet, 12.8 percent from the radio and TV, 8.6 percent from friends, and 1.4 percent from newspapers and magazines while only 2 percent heard about HIV from family members.

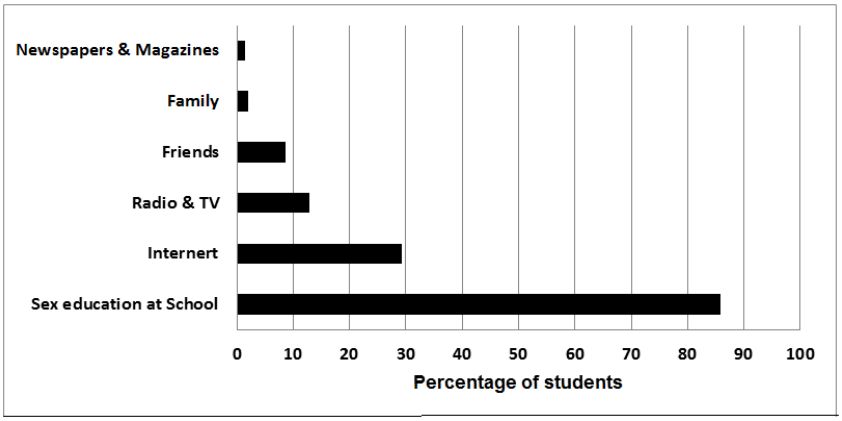

Fig-1: Sources of information about HIV/AIDS

To confirm the students' level of understanding of HIV/AIDS transmission, they were asked more questions on routes of transmission (Table 2). Those with wrong responses had misconceptions about HIV/AIDS transmission, prevention and control. Up to 18.3 percent thought that HIV could be transmitted by mosquito bites, 66.8 percent thought that HIV could be transmitted by sharing a meal with HIV infected person, 47.5 percent reported that HIV could be transmitted by sharing cloth, and 98.8 percent students thought that HIV could be transmitted from pregnant mother to child, while 11.6 percent thought having sex with only one uninfected faithful partner could result in transmission. It is quite interesting that

1.8 percent students believed that a good-looking person have HIV infection. With regards to knowledge of prevention and control, 88.4 percent indicated that transmission could be reduced by having sex with one faithful uninfected partner, 89.3 percent indicated that the use of condoms could reduce the risk of HIV/AIDS transmission, 94.5 percent indicated abstinence as a prevention strategy. However, 8.1 percent believed that there exists a cure for HIV/AIDS by medicine.

Table-2: Percentage of Knowledge on HIV/AIDS transmission, prevention and control

Questions	Right concept	Wrong concept
Can a person get HIV infection from mosquito bites?	81.7	18.3
Can a person get HIV infection by sharing a meal with someone who is infected?	33.2	66.8
Can a person get HIV infection by sharing cloth with someone who is infected?	52.5	47.5
Can the risk of HIV transmission be reduced by having sex with only one faithful uninfected partner?	88.4	11.6
Can the risk of HIV transmitted by oral contact?	56.2	43.8
Can HIV spread from pregnant mother to child?	98.8	1.2
Can a good-looking person have HIV infection?	98.2	1.8
Does condom use reduce HIV transmission?	89.3	10.7
Can the risk of HIV transmission be reduced by abstaining from sexual intercourse?	94.5	5.5
Can an HIV-infected person be cured of HIV by medicine?	91.9	8.1

Attitudes towards HIV/AIDS

About 48.3 percent of the respondents had negative attitude towards continue of friendship with an HIV-positive friend while only 52.5 percent could buy food and other goods from an HIV-positive shopkeeper (Table 3). It is also noticed that only 13.2 percent respondents indicated a willingness to take care of a sick HIV-positive relative. The majority of the participants (61.4%) accepted that an HIV-positive student should be allowed to continue her/his studies and that an HIV-positive teacher should be allowed to continue her/his teaching profession (68.2 %). Only 29.6 percent of students had negative attitudes towards AIDS patients and considered that they should be isolated for the safety of others. Three fourth of the studied students had a positive thinking about screening of HIV positive.

Table-3: Percentage of attitudes towards people living with HIV/AIDS

Question	Yes	No
If your friend is HIV positive, would you continue your friendship with him/her?	51.7	48.3
If one of your relative, who is HIV positive, becomes ill, would you be willing to care for her/him in your house or community?	13.2	86.8
If a shopkeeper is HIV positive, would you buy items from him/her?	52.5	47.5
If a student is HIV positive, she/he should be allowed to continue his/her study in school or college?	61.4	38.6
If a teacher is HIV positive, she/he should be allowed to continue his/her teaching in school or college?	68.2	31.8
Do you think that AIDS patients should be isolated for the safety of others?	29.6	70.4
Do you think that screening of HIV positive is good?	75.4	24.6

Practices related to HIV/AIDS

As illustrated in Table 4, 26.2 percent students had a history of sexual intercourse. The mean age (±SD) at sexual debut was 18.18 (±2.507) years. Of these, 61.4 percent indicated that their last three sex partners were the same person, 68.2 percent used a condom during their sexual encounters, and 34.6 percent had sex under external influence through drugs or alcohol. Only 13.2 percent reported that they had done an HIV test before, while only 2.5 percent students used injectable drugs or share needles as a result.

Table-4: Percentage of practices related to HIV/AIDS

Variables	Yes	No
Ever done HIV test before	13.2	86.8
Use injectable drugs	2.5	97.5
Ever had sex before	26.2	73.8
Last three sex partners was the same person (N = 63)	61.4	38.6
Used a condom during sexual intercourse (N = 63)	68.2	31.8
Ever had sex under external influence (drugs or alcohol) (N = 63)	34.6	65.4

DISCUSSION

Knowledge, attitudes and practices (KAP) studies are very useful tools prior to any intervention to assess the extent to which individuals or communities are ready to adopt risk-free behaviors. A very important finding of our study was that all students participated in the survey had heard about AIDS.

It can be observed from Table 5, that awareness level of students on physical changes during adolescences by Degree course is significantly varied. The higher mean score (Mean- 16.95, SD- 0.93) of knowledge is found in Science students followed by Arts students (Mean- 15.70, SD- 1.60). Therefore, the awareness level of students on physical changes during adolescence period is significantly differ (F-value 39.897, p-value <0.05). But it is revealed that the awareness level of students on adolescent reproductive health issues is higher (Mean- 12.43, SD- 0.88) in Arts students than Science students (Mean- 11.90, SD- 1.26). Knowledge about HIV/AIDS and its mode of transmission is different among the studied students. High level of knowledge is found in Science students (Mean- 9.42, SD- 0.64). The level of awareness on HIV/AIDS and its mode of transmission is significantly different (F-value 52.945, p-value <0.005) by students of various streams. The awareness of HIV/AIDS prevention by various courses of students is less different. Science students are having little more awareness (Mean- 9.22, SD- 0.76) than Arts students (F-value 28.428, p-value <0.05) but the difference is very minimum. So, it can be said that all student are aware on HIV/AIDS prevention. Misconceptions on HIV/AIDS are also tested among the students. Higher level of misconceptions is found among Arts students (Mean- 14.57, SD- 1.21), which is significantly varied (F-value 45.924, p-value <0.05) than other. Finally, opinion on introducing of adolescence education in schools/colleges is asked among the studied students. Higher level of opinion is found among Science students (Mean- 16.30, SD- 0.99), which is significantly varied (F-value 18.542, p-value <0.05) than Arts students.

Table-5: Reproductive Health Concerns regarding HIV/AIDS

Degree course	Mean	Std. deviation	F-value	p-value
Awareness level of students relating to adolescent reproductive health on physical changes				
Science stream	16.95	0.93	39.897	0.021
Arts stream	15.70	1.60		
Total	15.85	1.91		
Awareness level of students relating to Adolescent Reproductive Health issues				
Science stream	11.90	1.26	36.775	0.019
Arts stream	12.43	0.88		
Total	11.24	1.45		
Awareness about HIV/AIDS and its mode of transmission				
Science stream	10.98	0.64	52.945	0.002
Arts stream	10.23	1.05		
Total	9.19	1.12		
Awareness on prevention of HIV/AIDS				
Science stream	9.22	0.76	28.428	0.009
Arts stream	9.20	0.81		
Total	8.68	1.08		
Misconceptions on HIV/AIDS				
Science stream	13.90	1.69	45.924	0.036
Arts stream	14.57	1.21		
Total	12.78	1.39		
Opinion on Introducing of adolescence education in schools				
Science stream	16.30	0.99	18.542	0.003
Arts stream	15.46	1.40		
Total	16.16	1.26		

Therefore, the present study revealed that knowledge, attitude and practice levels of different degree course students regarding HIV/AIDS were differ and comparable. Most of the sample, especially Arts students have still lack awareness about various aspects of psychological development and particularly the level of awareness about HIV/AIDS and sexual health issues.

CONCLUSION

Adolescence is the most critical stage in the life of an individual. It is a distinct phase of rapid physical, psychological and social behavioral changes in boys and girls. It is therefore imperative to provide to the adolescents during the period, adequate and authentic information about physical growth, psychological development and changes in reproductive system so that they are enabled to imbibe responsible social attitudes and values towards sex and family life. The current study highlighted that in spite of higher level of knowledge about HIV/AIDS transmission and prevention in the studied students**,** appreciable level of misbelieves regarding transmission of HIV/AIDS was still prevailing among both Science and Arts students which may be the routes of stigma associated with the disease and the huge gap between awareness and attitude towards HIV/AIDS. The gloomiest part, revealed by the study was very poor awareness of the study population about STDS and HIV/AIDS transmissions. On the other hand, it was encouraging to know that students of Science stream had shown more awareness and favourable attitude. The results suggested that providing self instructional material on various aspects of reproductive health education will tackle the problems of disseminating appropriate health and reproductive health information within the norms accepted by the society. At the same time, the increased awareness and favourable attitude among college students must be sustained and strengthened further.

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Ethical considerations

This study does not identify or affect any individual, group or society/community. This research is immensely useful for policy makers and planners. This study received an ethical approval from "AALO THE HOPE - Society for Social Development" (NGO, Government Registration No-S/1L/65856-09-10), Midnapore, Paschim Medinipur, West Bengal, India.

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Conflict of Interests

The authors declare that there is no conflict of interests regarding the publication of this paper.

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