

“Knowledge and attitude about human immunodeficiency virus / acquired immunodeficiency syndrome among higher secondary school students of Nanded district of Maharashtra state: A cross-sectional study”

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ABSTRACT:

Introduction: India is estimated to have the third highest number of human immunodeficiency virus (HIV) infections in the world with about 20.89 lakh people currently living with HIV/acquired immunodeficiency syndrome (AIDS). Inadequate knowledge, negative attitudes, and ignorance among the school students are major hindrances to prevent the spread of HIV.

Aim: To assess the knowledge and attitude toward HIV/AIDS among the higher secondary school students of Nanded district of Maharashtra state.

Materials and Methods: A questionnaire-based cross-sectional study comprising 613 higher secondary school students (male = 390, female = 223) from Nanded district of Maharashtra state were included in the study. From the city 12 schools were selected randomly. A questionnaire assessing the knowledge and attitude toward HIV/AIDS was distributed among the senior school students. Pilot study was done among 50 students to test the validity of the questionnaire.

Results: All the students (100%) in our sample knew what is AIDS. About 96.2% of the students knew that AIDS is not a simple disease, the correct knowledge about the modes of transmission of HIV/AIDS was nearly 85.6% and about 94% of students would not leave the school if there was an AIDS student in their class. Eighty-four percent of students believed that students with AIDS should not go to special schools and about 95.8% students believed that HIV individuals must be supported, treated, and helped.

Conclusion: The students had satisfactory knowledge about HIV/AIDS and their attitude toward this group of people was good. There is need and opportunity to provide factual and precise knowledge on HIV/AIDS for school students. There should also be a drive to

increase education and awareness about HIV/AIDS in educational institutes.

Key words: Acquired immunodeficiency syndrome, attitude, children, human immunodeficiency virus

INTRODUCTION

Acquired immunodeficiency syndrome (AIDS) has emerged as an unprecedented pandemic cutting across all frontiers. AIDS has affected both industrialized and developing countries. AIDS has evolved from a mystical illness to a universal disease, which has spread to millions in <20 years since it was first seen. According to the estimates from (United Nations Programme on human immunodeficiency virus [HIV] and AIDS), there were 36.9 million people living with HIV globally and 1.2 million people have died of AIDS in 2014. There were about 2.0 million new infections globally in 2015 or about 5600 new infections per day.

HIV/AIDS epidemic has emerged as one of the most serious and enormous health problems within about two decades in India. India has the third highest number of people infected with HIV. According to the Annual report of National AIDS Control Organization (2014–2015), the estimated number of people living with HIV/AIDS in India was 20.89 lakh, 86% of whom were in 15–49 years age-group. The adult (15–49 years) HIV prevalence at national level continued its steady recession from the estimated level of 0.41% in 2001 to 0.27% in 2011.

Indian government in the Tenth Five Year Plan (2002–2007) has constituted targets, so as to achieve 90% coverage of schools and colleges through education programs and 80% awareness among the general population in rural areas. As children are a valuable resource for the future of

a nation, it is crucial that they be equipped with substantial amount of information so as to protect themselves from falling a prey to this fatal disease. Although adequate knowledge alone does not influence behavior change there is a consensus that having correct information is fundamental to behavior change.

With this background, the present study was conducted to determine the knowledge and attitude of HIV/AIDS using a questionnaire among higher secondary school students in Nanded district of Maharashtra state.

MATERIALS AND METHODS

A cross-sectional study was conducted in the month of July 2018. From the Nanded district of Maharashtra state 12 schools were randomly selected. All the higher secondary school students, who were present on the day of the study and fulfilled the inclusion and exclusion criteria, were included in the study and the total accounted for 613 subjects. Prior oral permission was taken from the private institution and various involved schools. Informed verbal consent was taken from the students participating in the study. Ethical permission was taken from private institution and the various involved schools.

Before data collection began, the questionnaire was piloted with 50 students, testing for reliability, validity, clarity, feasibility, and appropriateness for the students. It was an open ended questionnaire which included 20 item questions out of which 11 questions represented knowledge and 09 questions attitudes of the subjects toward HIV/AIDS. The questionnaire was distributed among the students in their respective classrooms during the 30 min break of their class and was collected back the same day. Before data collection began, each and every question was explained to the students to

prevent any ambiguity and was given guidance on how to fill out the form. A 100% response rate was observed in this study.

Data collected were subjected to statistical analysis using SPSS software version 20 (IBM 20.0, Armonk, NY) by descriptive statistics.

RESULTS

The study was conducted in 12 higher secondary schools of Nanded district of Maharashtra state. A total of 613 students took part in the study of whom 390 (63.6%) were males and 223 (36.4%) were females. The age of the participating students ranged from 15 to 18 years with the mean age being 16.52 ± 0.78 .

Five hundred and ninety students (96.2%) knew that AIDS is not a simple disease like the common cold. Three hundred and two subjects (49.3%) believed that AIDS is not a hereditary disease. All the respondents (100%) in this study knew about the AIDS. Majority, 525 (85.6%) of the students had the knowledge of correct mode of transmission of HIV/AIDS. However, many myths relating to HIV/AIDS, with 451 (73.6%) of the subjects believing that AIDS can cause the death of an individual and 335 (53.8%) participants believing that there is a vaccine for AIDS [Figure 1].

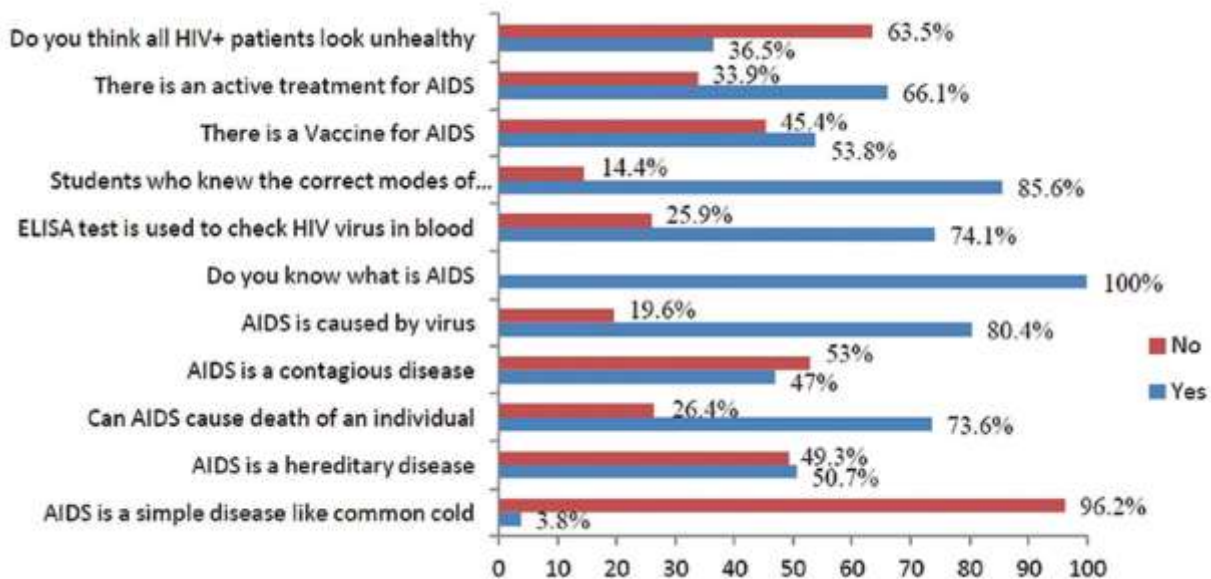


Figure 1: Knowledge of higher secondary school students about acquired immunodeficiency syndrome/human immunodeficiency virus

Three hundred eight (98.4%) and 282 (94%) of the subjects responded that AIDS is not a simple disease like common cold. The percentage of correct response regarding the causative agent for AIDS was 70.3% and 91% among the eleventh and twelfth standard students. Two hundred five (65.5%) and 249 (83%) of the

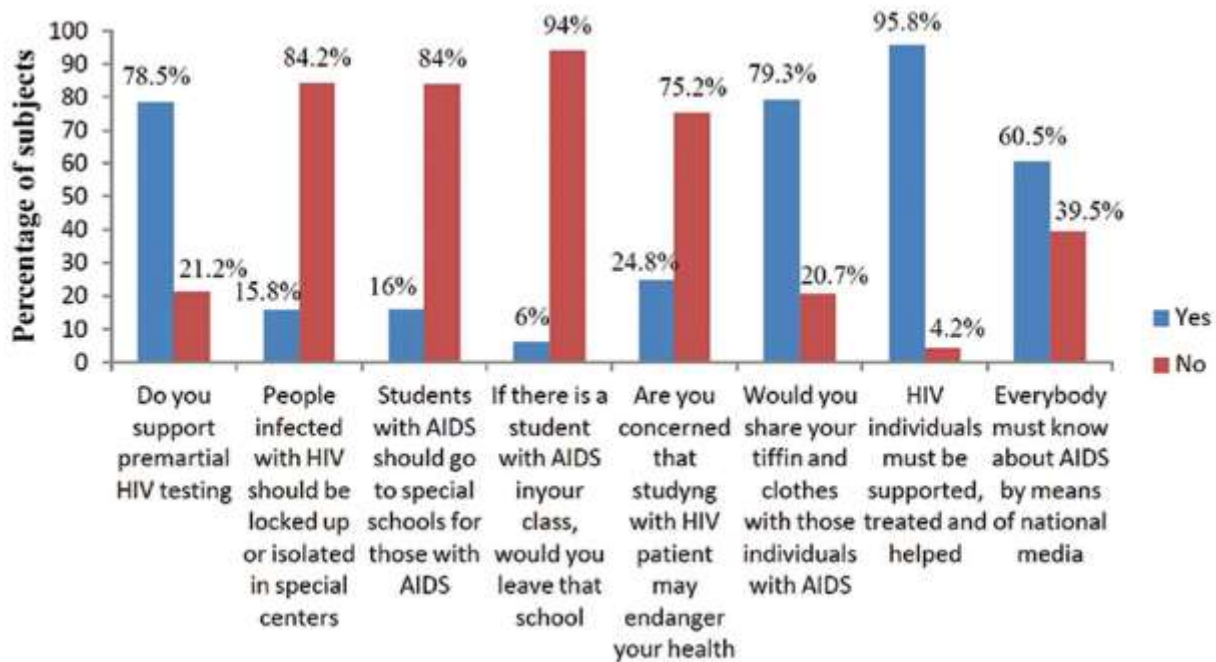
subjects from eleventh and twelfth standard knew that ELISA test is used to check HIV in blood [Table 1].

None of the study subjects held discriminating attitudes toward the individual with HIV/AIDS. Five hundred and eighty-seven subjects (95.8%)

believed that HIV individuals must be supported, treated, and helped. Five hundred and seventy-six subjects (94%) responded that they

would not leave the school if there was an AIDS student in the class [Figure 2].

Figure 2: Attitude of higher secondary school students towards acquired immunodeficiency syndrome/human immunodeficiency virus



Sixty-seven (21.4%) and 129 (32%) of the individuals were not willing to undergo HIV testing. Two hundred and ninety-three (93.6%) and 294 (95.8%) of the subjects believed HIV individuals must be supported, treated, and helped [Table 2].

DISCUSSION

The results of this study reflect the knowledge and attitude regarding HIV/AIDS among the higher secondary school students of Nanded district of Maharashtra state. In this study, all the participants (100%) knew what is AIDS. This could be due to the inclusion of HIV/AIDS in the school curricula, publicity of the government and NGOs, medical practitioner, media, etc.,

This finding is similar to the study done by Rajamouli et al. where it was observed to be 92.60% and contrary to the study done by Oyo-Ita et al. 42.9%.

In this study, 85.6% of the participants knew the correct mode of transmission of AIDS which is in line with the study done by Brook (89%) and Kamala and Aboud et al. (93.7%) and in contrast to the study done by Tan et al. (47.3%). This could be due to inaccurate information about how HIV is transmitted, conceiving aberrant behavior, and misperceptions of personal risk among the individuals.

Four hundred and ninety-three study subjects (80.4%) were aware of the causative agent of

AIDS which is similar to the study done by Gaash et al. (83.56%) in Srinagar and in contrast to the findings by Islam et al. (60%) and Oyo-Ita et al. (68.8%). This could be due to the negligence in acquiring knowledge on the issues other than that included in the study curricula and syllabus.

In the present study, 288 (47%) considered HIV as a contagious disease which is in contrast with the study by Tan et al. (98.4%). Nearly, 51% of the respondents thought that AIDS is a hereditary disease in comparison with 37.6% of the respondents in the study by Ayranci. This could be attributed due to the lower level of HIV/AIDS knowledge among students, as misinformation is a source of stigma.

There is no vaccine available for prevention of HIV/AIDS; yet 54% students claimed the availability of a vaccine that can protect against HIV. This result is in accordance with the study done by Benara et al. (59%). While the study conducted by Agrawal et al. and Chauhan et al. 27.4% and 34% of the subjects thought there was a vaccine to prevent HIV infection.

The most interesting finding from this survey was the fact that students in the city showed positive attitude toward AIDS. A small number of the respondents

disagreed with the attitude that individuals with AIDS must be supported, treated, and helped (4.2%) which is in accordance with the study done by Ayranci (4.8%). Attitudes associated with AIDS stigma are very difficult to change. AIDS stigma, therefore, will not be eradicated by simply informational campaigns alone; there is a need for more elaborate communications to target threats that uninfected people feel toward people living with AIDS.

In the present study, 15.8% of the subjects agreed with the statement that people with AIDS should be locked up or isolated in a special center. This result was in line with the study by Moatti et al. (21.9%) and Ayranci (17.8%). People living with HIV/AIDS are already suffering from the medical consequences of their disease; such discrimination would will further lead to stress and mental agony. Education programs should thus portray people living with AIDS as useful members of the community, instead of affirming their enrollment in vulnerable groups.

The findings of the present study reveal that though a considerable percentage of respondents had correct knowledge regarding HIV/AIDS, but still they lacked core

Table 1: Percentage of correct responses of knowledge by participants about human immunodeficiency virus/ acquired immunodeficiency syndrome (n=613 (%))

Question	Eleventh standard	Twelfth standard	Percentage of total with correct answer
	(n=313) (%)	(n=300) (%)	
Do you know what is AIDS	313 (100)	300 (100)	100 (613)
Cause of AIDS	220 (70.3)	273 (91)	80.4 (493)
AIDS is a contagious disease	144 (46)	144 (48)	47 (288)

Can AIDS cause death of an individual?	84 (26.8)	78 (26)	26.4 (162)
AIDS is a hereditary disease	158 (50.5)	144 (48)	49.3 (302)
AIDS is a simple disease like common cold	308 (98.4)	282 (94)	96.2 (590)
Do you think all HIV + patients look unhealthy	182 (58.1)	207 (69)	63.5 (389)
There is an active treatment for AIDS	112 (35.8)	96 (32)	33.9 (208)
There is a vaccine for AIDS	155 (49.5)	123 (41)	45.4 (278)
What are the modes of transmission of HIV/AIDS	255 (81.5)	270 (90)	85.6 (525)
ELISA test is used to check HIV in blood	205 (65.5)	249 (83)	74.1 (454)

HIV – Human immunodeficiency virus, AIDS – Acquired immunodeficiency syndrome

Table 2: Attitude of students toward human immunodeficiency virus/acquired immunodeficiency syndrome (n=613)

Question	Eleventh standard		Twelfth standard	
	(n=313) (%)		(n=300) (%)	
	Yes	No	Yes	No
Do you support premarital HIV testing?	253 (80.8)	58 (18.5)	228 (76)	72 (24)
Are you willing to undergo HIV testing?	246 (78.6)	67 (21.4)	171 (68)	129 (32)
People infected with HIV should be locked up or isolated in special centers	49 (15.7)	264 (84.3)	48 (15.8)	252 (84.2)
Students with AIDS should go to special schools for those with AIDS	59 (18.8)	254 (81.2)	39 (16)	261 (84)
If there is a student with AIDS in your class, would you leave that school?	13 (4.2)	300 (95.8)	24 (6)	276 (94)
Are you concerned that studying with HIV patient may endanger your health?	89 (28.4)	224 (71.6)	63 (24.8)	237 (75.2)
Would you share your tiffin and clothes with those individuals with AIDS?	237 (75.7)	76 (24.3)	249 (79.3)	51 (20.7)
HIV individuals must be supported, treated, and helped	293 (93.6)	20 (6.4)	294 (95.8)	66 (4.2)
Everybody must know about AIDS by means of national media	161 (51.4)	152 (48.6)	210 (60.5)	90 (39.5)

HIV – Human immunodeficiency virus, AIDS – Acquired immunodeficiency syndrome

knowledge of the disease. A public health professional can play an important role toward preventing and spread of HIV/AIDS infection among adolescents by initiating HIV/AIDS awareness program along with regular dental check-up camps among the school children which could help to modify the behavior, attitude, and knowledge toward HIV/AIDS.

CONCLUSION

Education is currently the only means of averting the transmission of HIV/AIDS. The information which is needed to protect adolescents from the HIV infection and successive disease involves transformation at any levels. People and society have to make changes in their thinking, behavior, attitudes, beliefs, and policies. Parents and teachers have a role to educate the youths on this pandemic and thus help in prevention and control of the disease. Government should regularly organize

and sponsor teachers to attend in workshops. Development of an active and appropriate HIV/AIDS unit in the science curriculum should be considered.

Financial support and sponsorship....Nil.

Conflicts of interestThere are no conflicts of interest.

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