

RESEARCH ARTICLE

A study of awareness about human immunodeficiency virus/acquired immunodeficiency syndrome among first-year MBBS students of KBNIMS, Gulbarga

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ABSTRACT

Background: Acquired immunodeficiency syndrome (AIDS) is characterized by reduction in a number of T-helper cells, because of infection by human immunodeficiency virus (HIV). HIV affects the immune system and, therefore, prone to various infectious diseases and its complications and also cancer. Treatment is available to delay the death of persons suffering from the disease. There is no cure for HIV/AIDS. Therefore, it is very essential to educate young people so that they can protect themselves from getting infected. Assessment of awareness level in adolescents, on the other hand, is equally important, to determine the impact of previous awareness and prevention efforts.

Aims and Objectives: To know the level of knowledge regarding HIV/AIDS among the first-year MBBS students and to enhance the future educative programs. **Materials and Methods:** This is a cross-sectional study to be conducted on 100 MBBS students in the age group of 18-20 years in KBNIMS, Gulbarga. Questionnaires were provided to the students. Total 14 multiple choice questions were included in the lists which were based on the knowledge and prevention regarding HIV/AIDS. **Results:** Statistical analysis was performed using frequency and percentage. Majority of the students were aware about HIV/AIDS, and its transmission. Majority of students (83%) were aware that once infected with HIV, there is no cure and 54% of students were aware that HIV is a contagious disease. 58% of students also knew that HIV/AIDS is transmitted through tattooing. 17% had misconception that HIV/AIDS is transmitted through mosquito bite, by hugging, kissing (5%), through urine (12%), by sharing of towels of infected person (5%), by sharing of toilet seats (6%), by haircut (11%), and by sharing clothes of infected person (2%).

Conclusion: The awareness and knowledge regarding HIV/AIDS in young age group help to design future educative programs and conducting such surveys at regular intervals would further help to assess the level of awareness and attitude toward HIV/AIDS.

KEY WORDS: Human Immunodeficiency Virus; Acquired Immunodeficiency Syndrome; Awareness; Knowledge; Medical Students

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INTRODUCTION

Acquired immunodeficiency syndrome (AIDS) is characterized by reduction in a number of T-helper cells, because of infection by human immunodeficiency virus (HIV). AIDS was first detected in the USA in 1981. AIDS is a major worldwide life-threatening disease spreading

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rapidly. Daily about 8500 persons get infected with HIV.^[1] The scourge poses a global threat to human existence, and it has no regard for race, class or creed.^[2] The high-risk groups include sex-workers, drug addicts, homosexual males, persons with extramarital relations, and recipients of unscreened blood transfusion.^[1] The youth cohort is one of the most vulnerable groups as far as risk of HIV/AIDS is concerned. HIV affects the immune system and reduces the body's defenses to protect against various infectious diseases and cancer. Treatment is available to delay the death of persons suffering from the disease; however, there is no cure. Thus, it becomes necessary to educate young people so that they can protect themselves from getting infected.

Assessment of awareness levels in adolescents is important because it helps to determine the impact of previous awareness and prevention efforts made by the government through media and also to know about the need for interventions.^[3] With this background, the present study was conducted to assess the current level of knowledge and awareness of young people toward HIV/AIDS.

MATERIALS AND METHODS

The present study was undertaken in 100 first MBBS students at KBNIMS, Gulbarga, were in the age group of 18-20 years. The study was conducted after obtaining the ethical clearance from the Institutional Ethics Committee, KBNIMS, Kalaburagi. It is a descriptive study. The students were given a pre-designed pro forma, which included 14 multiple choice questions on HIV/AIDS which pertained to awareness and knowledge domain of HIV/AIDS. Statistical analysis was performed using frequencies and percentage.

RESULTS

A total of 100 medical students were assessed including both girls and boys. The students were in the age group of 18-20 years. All the students had heard about HIV, and 98 students knew about the causation of HIV/AIDS. Majority of students (83%) were aware that once infected with HIV, there is no cure and 54% of students were aware that HIV is a contagious disease. Among the options provided, 98% of the students believed that transmission of HIV is possible during blood transfusion and can be transmitted through sexual intercourse and 94% believed that sharing unsterilized needles is also the mode of transmission. 58% of students also knew that HIV/AIDS is transmitted through tattooing. 17% had misconception that HIV/AIDS is transmitted through mosquito bite, by hugging, kissing (5%), through urine (12%), by sharing of towels of infected person (5%), by sharing of toilet seats (6%), by haircut

(11%), and by sharing clothes of infected person (2%). Regarding the options for modes of sexual transmission of HIV/AIDS, 79% students believed that by heterosexual means, 46% by homosexual, 40% by anal intercourse, and about 81% by vaginal intercourse. 93% students were aware that HIV/AIDS is preventable, and 95% believed that safe blood transfusion, condoms and single faithful partner would prevent HIV/AIDS. Among the list of options given to assess the knowledge about disease *per se*, 65% knew that the infected person may not show signs and symptoms of the disease, 67% no vaccine available for HIV/AIDS, 81% knew that there is a difference between HIV and AIDS, and most of the students were aware of the symptoms of HIV/AIDS. Students were aware about the HIV/AIDS, almost through social media, friends, and community workers (Table 1).

DISCUSSION

All the students were aware about the HIV/AIDS, and almost all knew that it is a viral infection caused by Human immunodeficiency virus. Majority of students were aware that there is no cure for HIV/AIDS, and that HIV is a contagious disease. Mode of transmission of HIV/AIDS was also known to many of the students. It was found that students had the misconceptions regarding spread of HIV through kissing, sharing towel, hugging, sharing toilet seats, sharing clothes of infected persons, and though it was in less percentage. Modes of sexual transmission of HIV/AIDS mainly through vaginal intercourse were known to the students. Majority of the students were aware about the modes of prevention of HIV/AIDS such as safe blood transfusion, using condoms, and single faithful partner. More than half of the students were having the knowledge of the disease *per se*. Awareness level at this age was known to them through the social media, friends, family, and community workers.

Awareness is the key to prevention of HIV/AIDS. The study was conducted to assess the knowledge and awareness about HIV/AIDS among the youth. The findings in our study were comparable with Satheesh et al.,^[4] in which 88% were aware that HIV/AIDS is not curable and 66% were aware that it is a contagious disease which was lower in our study. Verma et al.^[5] conducted a similar study where 74.41% adolescents opined safe sex (use of condom), whereas only 38.64% adolescents said safe tested blood as a mode of prevention. Srivastava et al. also reported similar findings as 78.6% respondents had knowledge about condom as means of protection.^[6] Francis et al. also observed that 79% students thought that use of condom decreases the risk of getting AIDS.^[7] Sunder et al. conducted a survey in 7 urban colleges and found that 59% of females is indicating that HIV transmission could be prevented using condom. Regarding boiled new needle

Table 1: Awareness and knowledge of HIV/AIDS among students

Domain with response	n
Have you heard about AIDS	
Yes	100
No	0
What causes HIV/AIDS	
Virus	98
NA	2
Is HIV/AIDS curable	
Yes	11
No	83
Don't know	4
NA	2
Is HIV/AIDS contagious	
Yes	54
No	2
Don't know	1
NA	6
What are the modes of transmission	
Blood transfusion	98
Unsterile needles	94
Sexual route	98
Mother to child during	
Pregnancy	69
Delivery	68
Breastfeeding	62
Hugging, kissing	5
Sharing of glasses/plates	2
Sharing of towels	5
Toilet seats	6
Urine	12
Haircut	11
Shaving with same blade/razors	84
Mosquito bite	17
Wearing same clothes	2
Tattooing	58
What are the modes of sexual transmission	
Heterosexual	79
Homosexual	46
Anal intercourse	40
Vaginal intercourse	81
Is unprotected sex harmless between two HIV infected people?	
Yes	25
No	63
Don't know	0
NA	12

(Contd...)

Table 1: (Continued)

Domain with response	n
Is HIV/AIDS preventable	
Yes	93
No	7
Don't know	0
NA	0
The following may prevent HIV	
Condoms	95
Safe blood transfusion	95
Single faithful partner	95
Copper T	95
Prayer	95
I pill	95
Vasectomy/tubectomy	95
Percentage of prevention of HIV/AIDS by condom	
100%	95
0%	1
<100%	51
Infected person need not show symptoms and signs of AIDS	
True	65
False	29
NA	6
Body cannot defend itself from certain diseases	
True	88
False	7
NA	5
HIV/AIDS can be cured if detected early	
True	50
False	34
NA	6
HIV/AIDS can be identified by how he or she looks	
True	11
False	85
NA	4
Is any vaccine available to prevent HIV infection to occur	
True	25
False	67
NA	7
Is there any difference between HIV and AIDS	
Yes	81
Symptoms of AIDS include	
Weight loss	90
Prolonged fever	86
Diarrhea	72
Repeated infections	93
Source of information about HIV/AIDS	

(Contd...)

Table 1: (Continued)

Domain with response	n
TV	84
Radio	68
Friends	71
Parents	58
Partners	53
Community health workers	69
Civil society	55
Newspapers/magazines	82
School	83
PU College	88
Internet	86
Was any formal sex education imparted in your school or college	
Yes	72
No	23
NA	3
Was it a part of the regular biology classes or was it taken differently	
Was part of biology class	86
Was taken differently	10
Not answered	4

HIV/AIDS: Human immunodeficiency virus/acquired immunodeficiency

and syringes 48.86% said yes, while one faithful life partner was reported by 39.77%, which was much higher in our study.^[8] Misconceptions about HIV/AIDS included answers by 39 (14.8%) respondents by a study conducted by Bassey et al. that a mosquito bite could transmit HIV/AIDS^[9] and 202 respondents were also assessed as having good knowledge of mother-to-child transmission 4.89% male students and 6.48% female students felt that AIDS can be transmitted by casual contact or handshake by Kore et al. which was similar to our study and in the same study only 14.75% students received knowledge or advice about AIDS from their parents,^[10] was much higher in our study (58%). Regarding modes of transmission majority 79% participants were aware that HIV/AIDS is transmitted by heterosexual contact, 46% by homosexual contact. The findings were similar to the study conducted by Verma et al., who reported 74% of the respondents were aware of the transmission by sexual contact. Sunder et al. reported finding similar to this study, as 81 percent of respondent in his study were aware about sexual contact as a route of transmission of disease. Malleshappa reported similar findings that 69.2% participants aware that disease was transmitted by unsafe sex.^[11] The major source of information about HIV/AIDS was obtained in their PU College (88%) and also through internet (86%) and TV (84%), which was consistent with the study conducted by Shira et al. This could be attributed to easy access to

mobile and computers.^[12] 72% of the respondents in our study were imparted formal sex education in their schools. 81% 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,^[13] and 39.6% was reported in another study.^[6] Significant improvement between pre-test and post-test knowledge levels after health education regarding HIV/AIDS has been reported.^[14,15]

CONCLUSION

In this study, majority of the students were aware about HIV/AIDS, with respect to knowledge and its prevention, but still there needs a emphasis to further increase the level of awareness toward HIV/AIDS through some community programs, as youth are more at risk of acquiring HIV/AIDS, due to less awareness of its modes of transmission and prevention and also there is a need to eliminate the misconceptions about the transmission of HIV/AIDS.

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