



Assessment of Knowledge and Attributes Towards Transmission and Prevention of HIV/ Aids Amongst High School and Junior College Students in Mumbai

1.Dr. Anahita V Bhesania Hodiwala, 2.Debapriya Chakraborty, 3. Mehran V Hodiwala, 4.Dr. Sharvari Samant, 5.Dr. Harapriya Kar

¹Professor and HOD Department of Microbiology MGM Medical College and Hospital, Kamothe Navi Mumbai MGMIHS.

²PhD Scholar Department of Microbiology MGM Medical College and Hospital, Kamothe Navi Mumbai MGMIHS.

³Student Smt Sulochanadevi Singhanian High School and Junior College Thane Maharashtra.

⁴Professor MGM Medical College and Hospital, Kamothe Navi Mumbai MGMIHS.

⁵ Associate Professor MGM Medical College and Hospital, Kamothe Navi Mumbai MGMIHS.

Corresponding author

Debapriya Chakraborty, PhD Scholar Department of Microbiology MGM Medical College and Hospital, Kamothe Navi Mumbai MGMIHS

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ABSTRACT:

Human Immunodeficiency virus (HIV) is a significant health concern globally. Since its discovery in the early 1980's, HIV has posed a formidable challenge to public health due to its impact on the immune system and its association with Acquired Immunodeficiency Syndrome (AIDS). The aim of the study was to assess the knowledge and attribute towards transmission and prevention of HIV/AIDS among the students of high school and junior college in Mumbai. A total number of 305 students from 8th, 9th, 10th, 11th, 12th class participated in the study. A questionnaire consisting of 32 questions was used to gather information from the students. Study results indicates 23.6% students were unaware that breast milk can spread HIV and 18.2% of respondents believed that HIV might be spread via mosquito bites. 10% of students did not know that using barrier techniques during sexual activity, such as condoms, diaphragms, can significantly lower the risk of HIV transmission. Approximately 45.5% of students were not aware that HIV can be prevented from being transmitted from mother to foetus via usage of appropriate ART drugs. HIV patients cannot live without symptoms for many years, according to 31% of students, and 32.7% believed that it can be cured and vaccine can prevent HIV. In response, 78.2 students said they would not call an HIV patient home or become friends with them. 87.3% of students did not know that there are voluntary testing centres where HIV testing is done free of cost and 49% believed that HIV and AIDS are the same. Assessing the knowledge and attributes of high school and junior college students regarding HIV/AIDS transmission and prevention is essential in tailoring effective educational programs and also plays a pivotal role in reducing stigma, promoting responsible behaviors and ultimately contributing to the global efforts to prevent the spread of HIV/AIDS.

Introduction:

The HIV pandemic remains one of the most pressing global public health challenges of the current time. With millions of people affected worldwide, it continues to exact a devastating toll on individuals,

families, and communities [1]. In the face of this persistent crisis, knowledge and awareness about HIV are indispensable tools in the fight against its spread and the stigma associated with it. Adolescents and young adults, in particular, represent a crucial demographic in this struggle, as they are both



vulnerable to the virus and play an essential role in shaping public perceptions and behaviours surrounding HIV^[2].

This paper delves into the critical issue of assessing knowledge about HIV among high school and junior college students in Mumbai. These educational settings represent formative years in the lives of young individuals, making it imperative to gauge their understanding of the virus, transmission methods, prevention, and the social impact of HIV. Our investigation aims to provide insights into the current state of knowledge among this age group and identify potential gaps or misconceptions.

Understanding the extent of HIV knowledge among high school and junior college students is not only vital for the protection of their health but also for the broader goal of curbing the epidemic. Effective HIV education can empower young people to make informed decisions, foster compassion and empathy,

and contribute to the reduction of new infections. Moreover, it can challenge the pervasive stigma and discrimination associated with the virus, promoting a more inclusive and supportive society.

Materials and Methods:

This was a prospective and descriptive questionnaire based study. The students studying in higher secondary and Junior college i.e (8th, 9th, 10th, 11th and 12th Class) were included in the study. A questionnaire with a total of 32 questions about the participants class, educational board and their knowledge regarding transmission, prevention and social attitude was prepared. Only the participants willing to participate were enrolled in the study after taking due assent from their parents. The answers were analysed and tabulated in the form of results.

The questionnaire was as follows:

Section A: Questions to obtain demographic and general information about the participant	
Serial No	Questions
1	Age of the participant
2	Gender of the participant
3	Class of the participant
4	Educational board of the participant
5	Have you heard about HIV?
6	How did you come to know about HIV?
7	In which class were you taught about HIV?
8	To which stream do you belong?
9	Do you think knowing about HIV is important?
Section B: Questions to assess knowledge of routes of transmission in HIV	
Serial No	Questions
1	Is HIV transmitted by handshake?
2	Is HIV transmitted by normal kissing?
3	Is HIV transmitted by sharing syringes?
4	Is HIV transmitted via sexual relation with an infected individual?
5	Can HIV be transmitted from infected Mother to her unborn baby?
6	Can HIV be transmitted through breast milk?
7	Can using same barber tools transmit HIV infection?
8	Can HIV be transmitted by transfusion of blood and blood products?
9	Can HIV be transmitted by mosquito bite?
10	Can using barrier methods of protection decrease chances for transmission of HIV?
11	Is HIV more common in homosexual?
Section C: Questions to assess knowledge about methods of prevention in HIV	
Serial No	Questions
1	Can use of barrier protection during sex decrease chances of HIV transmission?
2	Are there drugs available to prevent HIV transmission from infected mother to her unborn baby?
3	Is Breast feeding advised in case the mother is HIV positive?



Section D: Questions to know the social attitude and beliefs towards an HIV infected individual	
Serial No	Questions
1	Can a HIV patient live without symptoms for many years?
2	Is HIV Curable?
3	Is there a vaccine available for HIV?
4	Can an HIV infected person live a almost normal life by maintaining good nutrition and taking regular medicines ?
5	If you know a vegetable seller is HIV positive , would you buy vegetables from him or her?
6	Will you be friends and call a HIV infected person home
7	Would you accept an HIV infected student attending the same class as you?
8	Can a person with HIV live outside the hospital without isolation?
9	Do you know of any centre in your area where voluntary free of cost testing can be done for HIV?

Results:

305 students participated in the study. Maximum students i.e 65.5 % were 16-17 year old students and 72.7% were female students. 70.9% students belonged to class 11 and around 20% were from class 12. Very few students from class 8, 9, and 10 volunteered to participate in the study. 52.7% students who participated in the study were affiliated to ISC board. 92.7% students had heard about HIV and 7.3 % had no

knowledge about HIV at all. Those who did not have knowledge about HIV were from Class 8 and Class 9. Amongst those who had heard about HIV 50.9% students said that they had read about it and acquired the knowledge from posters , television, radio and advertisements, whereas only 30.9% students answered that they had been taught about HIV in school and 25.5 % amongst them answered that they were taught about HIV only in Class10. 92.7% students felt that it is important for them to know about HIV.

Table1: Knowledge of high school students regarding Routes of transmission in HIV

Questions	Answers by participant students	
	Yes	No
Is HIV transmitted by handshake?	5.5%	94.5%
Is HIV transmitted by normal kissing?	20%	80%
Is HIV transmitted by sharing syringes?	83.6%	16.4%
Is HIV transmitted via sexual relation with an infected individual?	98.2%	1.8%
Can HIV be transmitted from infected Mother to her unborn baby?	92.7%	7.3%
Can HIV be transmitted through breast milk?	76.4%	23.6%
Can using unsterilized same barber tools transmit HIV infection?	30.9%	69.1%
Can HIV be transmitted by transfusion of blood and blood products?	98.2%	1.8%
Can HIV be transmitted by mosquito bite?	81.8%	18.2%
Can using barrier methods of protection decrease chances for transmission of HIV?	90%	10%
Is HIV more common in homosexual?	43.6%	56.4%

Table 2: Knowledge of students regarding prevention of transmission of HIV

Questions	Answers by participant students	
	Yes	No
Can using barrier methods of protection decrease chances for transmission of HIV?	90%	10%



Are there drugs available to prevent HIV transmission from infected mother to her unborn baby?	54.5%	45.5%
Is Breast feeding advised in case the mother is HIV positive?	16.4%	83.6%

Table 3: Social attitudes and beliefs towards patients with HIV.

Questions	Answers by participant students	
	Yes	No
Can a HIV patient live without symptoms for many years?	69%	31%
Is HIV Curable?	67.3%	32.7%
Is there a vaccine available for HIV?	67.3%	32.7%
Can an HIV infected person live a almost normal life by maintaining good nutrition and taking regular medicines ?	72.7%	27.3%
If you know a vegetable seller is HIV positive , would you buy vegetables from him or her?	74.5%	25.5%
Will you be friends and call a HIV infected person home?	21.8%	78.2%
Would you accept an HIV infected student attending the same class as you?	5.5%	94.5%
Can a person with HIV live outside the hospital without isolation?	85.5%	14.5%
Do you know of any centre in your area where voluntary free of cost testing can be done for HIV?	12.7%	87.3%
Is HIV and AIDS same?	51%	49%

Discussion:

Majority students did not know that HIV can be transmitted by using unsterilized same barber tools and that HIV infection is more common amongst Homosexuals. Also 23.6% students were not aware that HIV can be transmitted through breast milk and 18.2% thought that mosquito bite can transmit HIV infection. 10% students were unaware that use of barrier methods like condoms, diaphragms etc during sexual intercourse can considerably decrease chances of HIV transmission. 45.5% students were not aware that there are drugs available to prevent mother to foetus transmission of HIV. 31% students felt that HIV patient cannot live without symptoms for many years and 32.7% students thought that HIV was curable and that a vaccine is available for HIV. 78.2 students answered that they would not be friends with an HIV patient and not call them home. 87.3 % students were not aware of any voluntary testing centre in their area and 49% felt that HIV and AIDS is the same.

The study investigated the knowledge of HIV transmission and attitudes towards HIV in high school students. The findings revealed a mixed level of understanding regarding the modes of transmission and prevention, with a significant portion of students displaying misconceptions. This is consistent with previous research indicating that gaps in knowledge persist among adolescents ^[3,4].

Furthermore, the study identified a need for targeted educational interventions to address these knowledge gaps. Effective strategies should be implemented in school curricula, emphasizing accurate information on HIV transmission and prevention methods. Additionally, comprehensive sex education programs should be promoted to ensure that students receive accurate and age-appropriate information starting from Class 8 as that age students enter puberty and can indulge in high risk behaviour if they do not receive correct knowledge from dependable sources^[5].

The study also uncovered a range of attitudes towards HIV/AIDS, highlighting the importance of reducing stigma and discrimination. Efforts should be made to create a supportive environment for individuals living with HIV, as negative attitudes can hinder prevention efforts and access to care^[6].

Conclusion:

In conclusion, this study underlines the need for comprehensive and targeted educational programs addressing HIV transmission and attitudes in high school students. By improving knowledge and fostering positive attitudes towards HIV/AIDS, we can contribute to a more informed and compassionate society. It is imperative that educational institutions, policymakers, and healthcare providers collaborate to implement evidence-based interventions that effectively address these issues.



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