Original Research Article

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Assessment of knowledge of school going children regarding HIV/AIDS in rural field practice area (RHTC) Srinagar, JLN medical college and Hospital, Ajmer

Mahesh Keswani, Teena Gupta*, Bharat Meharda

Department of Community Medicine, JLN Medical College, Ajmer, Rajasthan, India

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*Correspondence: Dr. Teena Gupta,

E-mail: teenagupta521@gmail.com

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ABSTRACT

Background: AIDS, the acquired immune-deficiency syndrome (slim disease) is a fatal illness caused by a retro virus known as the human immunodeficiency virus (HIV) which breaks down the body's immune system. Transmission of HIV is mainly by unprotected sexual contacts, mother to child (antenatal, perinatal and postnatal), and transfer of infected blood.

Methods: The present cross-sectional study was conducted from January 2018 to June 2018 in randomly selected government and private schools from rural field practice area. A total of 300 students randomly selected from 10th to 12th class were included in the study, of whom 150 were boys and 150 were girls. The data collected were presented in percentage and figure.

Results: Majority of students (61.35%) belonged to age group of 15-18 years and most of them were females. Most of the students (85.2%) had heard about HIV/AIDS but only 53.5% knew that HIV/AIDS caused by a virus. The knowledge regarding mode of transmission of HIV/AIDS was unprotected sex, as expressed by 86.1% students. 70.66% students believe that condoms is the best method of protection against HIV followed by safe blood 43.6%, Disposable syringes 40.29%.

Conclusions: Majority of students (61.35%) belonged to age group of 15-18 years and most of them were females. Most of the students (85.2%) had heard about HIV/AIDS but only 53.5% knew that HIV/AIDS caused by a virus. The knowledge regarding mode of transmission of HIV/AIDS was unprotected sex, as expressed by 86.1% students. 70.66% students believe that condoms is the best method of protection against HIV followed by safe blood 43.6%, Disposable syringes 40.29%.

Keywords: Knowledge, HIV/AIDS, Transmission, Prevention

INTRODUCTION

AIDS, the acquired immune-deficiency syndrome (slim disease) is a fatal illness caused by a retro virus known as the human immunodeficiency virus (HIV) which break down the body's immune system, living the victim vulnerable to a host of life threatening opportunistic infections, neurological disorders or unususal malignancies. ¹

Transmission of HIV is mainly by unprotected sexual contacts, mother to child (antenatal, perinatal and postnatal), and transfer of infected blood. There are several methods to prevent HIV transmission, these include comprehensive education and campaign, safe sex by use of condoms, abstinence, faithfulness, safe blood transfusion and the use of antiretroviral drugs to prevent mother to child transmission (MTCT) of HIV.²

The United Nations adopted to halt and reverse the spread of HIV/AIDS as one of its millennium development goals. Since the beginning of the epidemic, almost 70 million people have been infected with the HIV virus and about 35 million people have died of AIDS. Globally, 36.9 million (31.1–43.9 million) people were living with HIV, 1.8 million people newly infected with HIV and AIDS related deaths in 2017 were 940000 (670000- 1.3 million) (UNAIDS data 2018). The total number of people living with HIV in India was estimated at 21.17 lakh (17.11- 26.49 lakh) in 2015. The estimated number of new HIV infections in 2015 was around 86 thousand (56-129) thousand. In 2015 an estimated 67.6 (46.4-106.0) thousand people died of AIDS related causes nationally.³

As per the India HIV Estimation 2015 report, adult (15-49years) HIV prevalence in India was estimated at 0.26% (0.22%- 0.32%) in 2015. in 2015, adult HIV prevalence was estimated at 0.30% among males and at 0.22% among females.³

AIDS has a great negative effect amongst students both at primary and secondary level if no proper measures are put in place to avert them. School students especially those at secondary level are much more vulnerable to HIV/AIDS because their social, emotional and psychological development is incomplete, they tend to experiment with risky behavior, often with little knowledge/awareness of the danger. Nevertheless, most young people have limited knowledge about HIV/AIDS, largely because the society makes it difficult for them to obtain information. As children are a valuable resource for the future of a country, it is imperative that they be equipped with ample amount of information so as to protect themselves.⁴

Thus present study was conducted with the following objectives:

- To know the socio-demographic profile of study participants.
- To assess the knowledge/awareness of school children regarding HIV/AIDS.
- To provide suggestions for HIV/AIDS education in schools.

METHODS

The present cross-sectional study was conducted from January 2018 to June 2018 in randomly selected government and private schools from rural field practice area of Department of Community Medicine, JLN Medical College, Ajmer. A total of 300 students randomly selected from 10th to 12th class were included in the study, of whom 150 were boys and 150 were girls.

A pre-structured questionnaire was used to assess the general knowledge on HIV/ AIDS, its mode of transmission and prevention. The consent was obtained from the school principals after explaining the purpose of study to them. The data collected were presented in percentage and figure.

RESULTS

In the present study majority of students (61.35%) belonged to age group of 15-18 years and most of them were females. 62 (20.65%) students were less than 15 years and 54 (18%) students were above 18 years of age (Table 1).

Table 1: Age and gender wise distribution of study subject (n=300).

Age (in	Male no.	Female no.	Total no.
years)	N (%)	N (%)	N (%)
<15	30 (20.31)	32 (21.09)	62 (20.65)
15-18	87 (57.81)	97 (64.84)	184 (61.35)
>18	33 (21.88)	21 (14.06)	54 (18.00)
Total	150 (50)	150 (50)	300 (100)

In the present study most of the students (85.2%) had heard about HIV/AIDS but only 53.5% knew that HIV/AIDS caused by a virus. 52.68% participants were able to write the full form of AIDS and only 26.58% were able to write the full form of HIV, only 18.66% knew that there is no vaccine available to protect from HIV/AIDS, 50.87% participants believe that HIV/ AIDS is curable and 44.37% participants believe that early diagnosis of HIV virus in people help to prolong the life of patients (Table 2).

Table 2: Knowledge regarding HIV/AIDS among study population (n=300).

Questions on Imported to	Male no.	Female no.	Total no.
Questions on knowledge	N (%)	N (%)	N (%)
Herd about HIV/AIDS	141 (93.75)	115 (76.69)	256 (85.20)
Is AIDS/HIV caused by a virus	96 (64.00)	65 (43.33)	161 (53.50)
Full form of HIV	57 (38.00)	23 (15.30)	80 (26.58)
Full form of AIDS	91 (60.60)	67 (44.67)	158 (52.68)
Is AIDS/HIV is curable	78 (52.00)	75 (50.00)	153 (50.87)
No vaccine for HIV/ AIDS	30 (20.31)	26 (17.19)	56 (18.66)
Will early diagnosis of HIV virus in people help to prolong the life of patients	78 (52.09)	55 (36.80)	133 (44.37)

Table 3: Evaluation of the knowledge on various modes of transmission (n=300).

Modes of transmission	Male no.	Female no.	Total no.
	N (%)	N (%)	N (%)
HIV infected mother to baby	30 (20.31)	41 (27.34)	71 (23.64)
Unprotected sexual intercourse	127 (84.37)	131 (87.50)	258 (86.10)
Infected blood transfusion	70 (46.87)	69 (46.09)	139 (46.31)
Sharing of infected syringes and needles	79 (52.34)	73 (48.44)	152 (50.64)

Table 4: Source of information about HIV/AIDS (n=300).

Source	Male no.	Female no.	Total no.
	N (%)	N (%)	N (%)
Internet	97 (64.54)	77 (51.40)	174 (58.00)
T.V.	115 (76.84)	97 (64.42)	212 (70.56)
Radio	69 (45.98)	47 (31.59)	116 (38.62)
Newspaper, Magazines & Books	30 (20.32)	28 (18.98)	58 (19.30)
Friends	35 (23.50)	15 (10.20)	50 (16.61)
Parents	23 (15.20)	18 (12.24)	41 (13.58)
Others	16 (10.40)	12 (8.00)	28 (9.33)

Table 5: Evaluation of knowledge regarding methods of prevention of HIV/AIDS (n=300).

Methods of prevention	Male no.	Female no.	Total no.
	N (%)	N (%)	N (%)
Use of condom	138 (92.19)	74 (49.22)	212 (70.66)
Safe blood	75 (50.00)	56 (37.50)	131 (43.60)
Disposable syringes	79 (52.34)	42 (28.13)	121 (40.29)
Not sharing injections/ blades	66 (43.75)	39 (25.78)	105 (35.10)
Availability of treatment for HIV/AIDS	29 (19.53)	23 (15.63)	52 (17.33)

The present study reveals that the knowledge regarding mode of transmission of HIV/AIDS was unprotected sex, as expressed by 86.1% students followed by sharing syringes/ needles (50.64%), infected blood transfusion (46.31%), and HIV infected mother to baby (23.64%) (Table 3).

Source of information about HIV/AIDS: In the present study shows that TV. 70.56% (76.84% and 64.42% of boys and girls respectively), internet 58% (64.54% and 51.40% of boys and girls respectively) and radio 38.62% (45.98% and 31.59% of boys and girls respectively) are considered as major sources of providing information about disease. On the other hand newspaper, magazines & books, friends, parents and others (19.3%, 16.61%, 13.58% & 9.33% respectively) are also the good sources for their knowledge about the disease (Table 4).

Knowledge regarding methods of prevention of HIV/AIDS, in the present study shows that 70.66% students (92.19% and 49.22% of boys and girls respectively) believe that condoms is the best method of protection against HIV followed by safe blood 43.6% (50.0% and 37.50% of boys and girls respectively), disposable syringes 40.29% (52.34% and 28.13% of boys and girls respectively), not sharing injections and blade 35.1% (43.75% and 25.78% of boys and girls respectively) and

availability of treatment for HIV/AIDS 17.33% (19.53% and 15.63% of boys and girls respectively) (Table 5).

DISCUSSION

In the present study most of the students (85.2%) had heard about HIV/AIDS but only 53.5% knew that HIV/AIDS caused by a virus. 52.68% participants were able to write the full form of AIDS and only 26.58% were able to write the full form of HIV, only 18.66% knew that there is no vaccine available to protect from HIV/AIDS, 50.87% participants believe that HIV/ AIDS is curable and 44.37% participants believe that early diagnosis of HIV virus in people help to prolong the life of patients. In another study conducted by Shinde et al revealed that most of the students (86.72%) had heard about HIV/AIDS, while only 18.75% knew that there is no vaccine available to protect from HIV/AIDS).⁵ Jain in their study at Udaipur reported that 96% of students (94% and 97% of boys and girls respectively) were aware of full form of HIV/AIDS, but only 53% of them (50% and 56% of boys and girls respectively) believed that it can be cured.⁶ Lal in their study at Delhi reported that all the students had heard of HIV/ AIDS although only 51.4% were able to write the full form of AIDS and only 19.9% were able to write the full form of HIV.

The present study reveals that the knowledge regarding mode of transmission of HIV/AIDS was unprotected sex, as expressed by 86.1% students followed by sharing syringes/ needles (50.64%), infected blood transfusion (46.31%), and HIV infected mother to baby (23.64%). The similar finding were observed by Saluja et al in their study carried out in rural area of Haryana revealed that the knowledge regarding modes of transmission of HIV/AIDS 82.4% students (58.2% boys and 24.1% girls) said that it was through unprotected sex followed by sharing injections (78.5%), blood transfusion (67.6%), and from infected mother to baby (62.4%).8 In another study conducted by Shinde et al revealed that the awareness regarding mode of transmission of HIV/AIDS was unprotected sex, as expressed by 85.94% students followed by sharing injections/ blades (50.39%), infected blood transfusion (46.48%), HIV infected mother to baby (23.83%). Kotech et al in their study carried out in urban slums of Vadodara city revealed that the knowledge regarding modes of transmission were the sexual act followed by needles and blood transfusion.9

Source of information about HIV/AIDS: In the present study shows that TV 70.56% (76.84% and 64.42% of boys and girls respectively), internet 58% (64.54% and 51.40% of boys and girls respectively) and radio 38.62% (45.98% and 31.59% of boys and girls respectively) are considered as major sources of providing information about disease. On the other hand newspaper, magazines & books, friends, parents and others (19.3%, 16.61%, 13.58% & 9.33% respectively) are also the good sources for their knowledge about the disease. In another study conducted by Saluia et al revealed that three hundred and ten (91.2%) students had heard about HIV/AIDS from television while 186 (54.7%) mentioned radio as main source of information to them.8 Gupta et al in their study at Pune reported that TV was the commonest source of information in both male and female.¹⁰

Knowledge regarding methods of prevention of HIV/ AIDS, in the present study shows that 70.66% students (92.19% and 49.22% of boys and girls respectively) believe that condoms is the best means of protection against HIV followed by safe blood 43.6% (50.0% and 37.50% of boys and girls respectively), disposable syringes 40.29% (52.34% and 28.13% of boys and girls respectively), not sharing injections and blade 35.1% (43.75% and 25.78% of boys and girls respectively) and availability of treatment for HIV/AIDS 17.33% (19.53% and 15.63% of boys and girls respectively. Similar results were observed by Shinde et al in their study that condoms is the best means of protection against HIV followed by safe blood (43.75%), disposable syringes (40.23%), not sharing injections and blade (34.77%) and availability of treatment for HIV/AIDS.5 In another by Yadav et al revealed that the higher number of respondents (82.75%) were aware of the blood safety. 11 In a study by Selcuk Koksal et al reported that 78.51% participants knew that the sharing injections, needles and razors with a HIV/ AIDS infected person would transmit HIV virus. 12 In another study done by Gaash et al reported 23.11% participant, Bhalla et al reported 50.35% and Lal et al reported 44.4% of participant knew that sharing injections with a needle from an HIV/AIDS infected person will transmit HIV virus. 7,13,14

CONCLUSION

The basic knowledge of HIV/AIDS over various issues like prevention and mode of transmission is deficient among many students. Adolescents are more vulnerable and are less aware of the knowledge to protect themselves from HIV/AIDS. The awareness campaign should be designed at school levels for preventing and protecting adolescents from the HIV/AIDS and to spread awareness to induced behavioral change among the adolescent. The effort as regards HIV/AIDS education to be initiated, as a part of school curriculum with all the literature available at school level to enhance the knowledge related to HIV/AIDS among the students.

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