

Original Research Article

A comparative study to assess the knowledge and beliefs regarding AIDS among higher secondary students in rural schools of South Kerala and South Tamil Nadu

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ABSTRACT

Background: HIV continues to be a major global public health issue, having claimed 36.3 million lives so far. India has the third largest HIV epidemic in the world, with 2.1 million people living with HIV. Epidemiological data on AIDS suggests that in many cases, HIV infection was acquired during adolescence and lack of knowledge is one of the most important reasons. Hence, an ardent need was felt to assess the knowledge and beliefs of adolescents regarding AIDS. The main objective of this study was to assess the knowledge and beliefs regarding AIDS among higher secondary students of rural schools in South Kerala and in South Tamil Nadu.

Methods: After getting ethical committee clearance, the study was conducted among higher secondary students of twelfth standard using a predesigned and validated self-administered questionnaire. An educational intervention regarding AIDS lasting for 30 min was given after the test. Data analysis was done using appropriate software.

Results: The mean knowledge scores of students from Kerala (11.57) and Tamil Nadu (11.51) were almost same. Television, newspaper and teachers were the main source of information about AIDS. Beliefs like Whiteman's disease can spread through mosquito bite, sharing vessels and giving shake hands/touching were highly prevalent in the study subjects.

Conclusions: Proper emphasis should be given to teachers on mentoring adolescents and imparting them with the needed knowledge on HIV/AIDS to enable them to overcome this period of stress and storm.

Keywords: Knowledge, Beliefs, AIDS, Higher secondary students, Schools, Kerala, Tamil Nadu

INTRODUCTION

Acquired immune deficiency syndrome (AIDS), called as 'slim disease' is a major emerging public health problem in India. The global HIV epidemic claimed 64% fewer lives in 2020 since its peak in 2004.¹ And fewer people became newly infected with HIV than in any year since 1990. There were approximately 37.7 million (30.2-45.1 million) people living with HIV (PLHIV) at the end of

2020 with 1.5 million (1.0-2.0 million) people becoming newly infected with HIV in 2020 globally.

AIDS is a fatal illness caused by a retrovirus known as the Human immune deficiency virus (HIV) which breaks down the body's immune system and weakens people's defense against many infections and some types of cancer that people with healthy immune systems can fight off. As the virus destroys and impairs the function of immune

cells, infected individuals gradually become immunodeficient. The most advanced stage of HIV infection is AIDS.²

Heterosexual intercourse is the principle mode of transmission of HIV infection in India, accounting for nearly 75% of all HIV infections.³ Sexually active youth have been identified as a group at high risk of HIV infection.^{3,4} There is substantial evidence that Sexually transmitted disease (STDs) enhance the transmission and acquisition of HIV infection that control of STDs is helpful in preventing AIDS.⁵ The social system is such that stigma is attached to the word 'sex' and anything connected with sex is neither spoken loudly, nor discussed in public. Sex education not yet been included properly in the formal educational curriculum in schools, while reported proportions of students engaging in premarital sex varies from 8% to 15%.⁶ This combination of high risk behavior and lack of societal communications about sexual matters is likely to be reason to the spread of HIV infection.

The spread of HIV is in part determined by the knowledge and beliefs regarding sexuality of its members and by the sexual practices. It is important to obtain information about the knowledge and beliefs regarding AIDS in the target community before formulating public health policies for the prevention of HIV transmission. Hence a study was done to identify the knowledge and beliefs regarding AIDS, among higher secondary students in the schools of South Kerala and South Tamil Nadu.

METHODS

Study design

The study design was descriptive research design.

Study setting

The study setting was Government higher secondary schools in a rural community of South Kerala and in South Tamil Nadu.

Study period

The study period was June 2015 to March 2016.

Criteria for sample selection

Higher secondary students belonging to the twelfth standard who got parental consent and assent were included for the study

Data collection procedure

A suitable date was identified for the data collection and prior permission was obtained from the head of the departments of these schools. Students who met the inclusion criteria were given a self-administered predesigned pretested questionnaire. The total sample size

achieved was 513. After completion of the questionnaire, the filled forms were collected, and an educational intervention was given for the study participants. The overall session took thirty minutes.

Human Ethics Committee clearance was obtained for the study.

Data analysis

The obtained data was entered in excel spread sheets and data cleaning was performed. Data thus obtained from various schools were analyzed using descriptive statistics by appropriate statistical software

RESULTS

The total students participated was 513 in which 355 from Kerala and 158 from Tamil Nadu. The mean age of the study participants was 17.01 (Kerala) and 17.02 (Tamil Nadu). The mean age of the study participants was 17.01 (Kerala) and 17.02 (Tamil Nadu) respectively. The mean knowledge score of students from Kerala was 11.58 and students from Tamil Nadu students scored 11.51 correspondingly.

Around (30.4%) of students from Kerala and (25.9%) of the students from Tamil Nadu got information about AIDS from teachers. Television is the source of information for students (24.2%) from Tamil Nadu and for (4.4%) of students from Kerala. Doctors are the preferred source of information to about (32.7%) of students from Kerala and for (59.5%) of Tamil Nadu. Internet usage for getting information regarding AIDS was minimal among (2.8%) of the students from Kerala and (1.3%) of the students from Tamil Nadu. Teachers were seen as the preferred source of information among (30.4%) of the students from Kerala and for (25.9%) of the students from Tamil Nadu. Nearly (92.1%) of the students from Kerala and (91.8%) of the students from Tamil Nadu were aware that Virus is the causative organism of AIDS.

Majority of the students from Kerala and Tamil Nadu are aware that HIV transmission can be prevented by ensuring safe blood transfusion (48.2%, 61.4%), avoiding sharing of needles (53.0%, 74.7%), avoiding premarital sex (40%, 7.6%) and usage of condoms (32.7%, 13.3%) respectively.

The study subjects from Kerala (90.1%) and Tamil Nadu (93.7%) believed that AIDS is a very dangerous killer disease. Majority of the students from both Kerala and Tamil Nadu were aware about the modes of transmission of HIV like sharing of needles, sexual contact, blood transmission and vertical transmission. On the other hand only, few students from Kerala (14.4%) and Tamil Nadu (5.7%) had beliefs such as AIDS can be caused by witchcraft/sorcery or as a punishment from God and it can be transmitted through touching/ giving shake hands can spread HIV/AIDS in Kerala (9.9%) and Tamil Nadu (6.3%) respectively. The study subjects from Kerala

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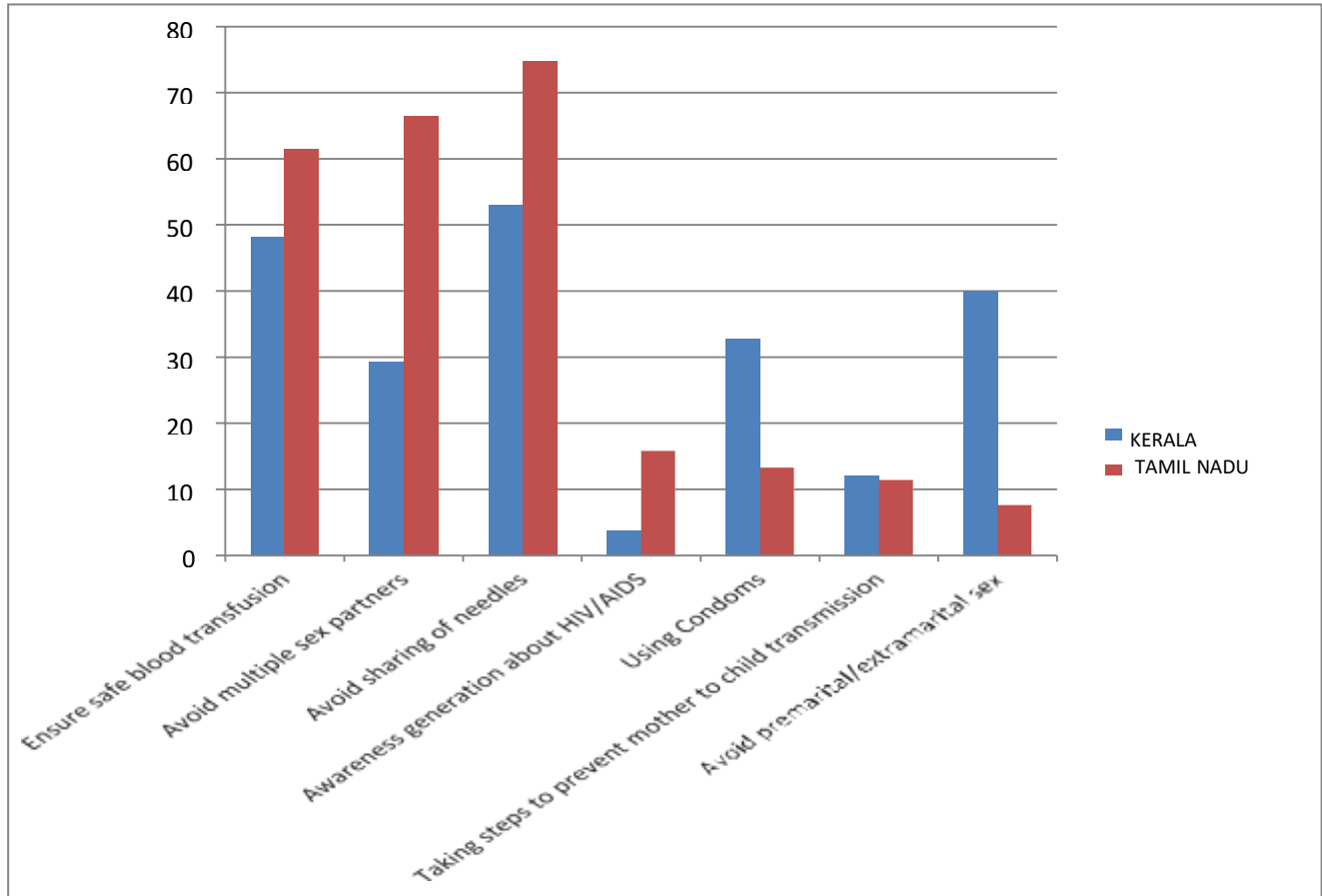


Figure 1: Distribution of study subjects based on their knowledge level regarding prevention of AIDS (N=513).

Table 1: Study subject details.

Participants	Kerala (%)	Tamil Nadu (%)	Total (%)
Total students	355	158	513
Males	142 (40)	50 (31.6)	192 (37.4)
Females	213 (60)	108 (68.4)	321 (62.6)
Mean age	17.01	17.02	

Table 2: Distribution of study subjects based on preferred source of information (N=513).

Preferred source of information	Kerala		Tamil Nadu	
	F	%	F	%
Teachers	108	30.4	41	25.9
Parents	42	11.8	14	8.9
Friends	47	13.2	15	9.5
Television	86	24.2	7	4.4
News paper	29	8.2	4	2.5
Magazines	30	8.5	4	2.5
Internet	10	2.8	2	1.3
Doctors	116	32.7	94	59.5

Table 3: Distribution of study subjects based on their beliefs regarding AIDS (N=513).

Beliefs	Kerala		Tamil Nadu	
	F	%	F	%
AIDS is a very dangerous killer disease	320	90.1	148	93.7
AIDS is a curable disease	135	38	27	17.1
AIDS is a White man's disease	77	21.7	22	13.9
All HIV/AIDS patients are morally not good	84	23.7	36	22.8
HIV infected can appear as normal and healthy	202	56.9	74	46.8
HIV/AIDS can be caused by witchcraft/sorcery or as a punishment from god	51	14.4	9	5.7
HIV can spread through mosquito bite	76	21.4	27	17.1
Touching/ giving shake hands can spread HIV/AIDS	35	9.9	10	6.3
Sharing vessels can transmit HIV	76	21.4	19	12
Sharing needles can spread HIV	303	85.4	153	96.8
HIV can spread through sexual contact	311	87.6	151	95.6
HIV can spread through blood transfusion	305	85.9	147	93
Mother to child transmission of HIV cannot occur during pregnancy	125	35.2	23	14.6
HIV can spread from mother to child through breast milk	243	68.5	128	81
An effective vaccine is available against HIV/AIDS	133	37.5	40	25.3
All HIV/AIDS patients should be isolated	60	16.9	14	8.9
AIDS is a very dangerous killer disease	320	90.1	148	93.7

DISCUSSION

This study concludes that over all knowledge regarding AIDS among higher secondary students from Kerala and Tamil Nadu were adequate. Preferred source of getting information about AIDS through internet, was (22.5%) and (10.8%) for Kerala and Tamil Nadu respectively. This indicates that the students in rural area are having comparatively lesser internet facilities. On the other-hand newspapers (71.8% and 66.5%) and magazines (71.8% and 66.5%) were the major source of information regarding AIDS among higher secondary students of Kerala and Tamil nadu respectively which can be an indication regarding the preferred usage of print media in getting information. About 50% of students consider friends as the source of information. This shows the importance of peer education. Influence of peers can also prevent students from indulging in high risk activities which can contract HIV infection in the younger age itself. Comparatively lesser number of students attended the question on preferred source of information about sex related matters. This is due to the reluctance of adolescents in openly discussing sex related matters. Sex related topics to be provided with more space in the education curriculum with training of teachers in handling the topics more-lively and effectively to cause behavior change in adolescents. Media is less preferred by adolescents in acquiring knowledge in sex related matters. This may be due to the preference of adolescents in getting answer to their queries by one to one discussion rather than attending monotonous programmes. Wrong beliefs and misconceptions about HIV/AIDS can lead to stigma and social isolation of HIV/AIDS patients, unnecessary worries and tensions and initiation of high risk behaviors. The current study findings are in par with other research

studies which depicts about the knowledge and beliefs regarding AIDS.^{7,8}

CONCLUSION

Understanding the knowledge and beliefs regarding AIDS among adolescents will enable to identify the gaps in their level of comprehension, focus on those sensitive areas and to inate sex education in curriculum among school going students thereby bring a halt to this deadly disease and to prepare them for a better tomorrow.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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