Original Research Article

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A study on awareness regarding HIV/AIDS among medical students in Kancheepuram district, Tamil Nadu

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ABSTRACT

Background: India has the third largest number of people living with HIV/AIDS. India is estimated to have 75,900 new adults with HIV infections. The prevalence of HIV infection was 0.7% in India, 0.26% in Tamil Nadu in the year 2017. HIV related stigma remains an important barrier in effectively fighting against HIV/AIDS. The objectives of the study were to assess knowledge regarding HIV/AIDS among medical students and to assess attitude towards HIV/AIDS among medical students.

Methods: A cross-sectional study conducted among 1st year undergraduates of Sree Balaji Medical College. Sample size was calculated using 4pq/L² computed to a total of 240. Data collection was done using pretested structured questionnaire, containing 7 questions and 5 questions regarding knowledge and attitude towards HIV/AIDS respectively. Data was entered in MS excel and analysed using SPSS software version 22.

Results: Among the participants, 46% were male and 54% were female. 91% of study participants had adequate knowledge (94% knew that HIV was preventable, 89% knew about the mode of spread, 90% knew about transmission prevention) and 84% of the study participants had good attitude.

Conclusions: This knowledge and attitude study was to assess the current level of knowledge among first year MBBS students about AIDS at the point of entry to medical course. Few misconceptions were found to exist regarding mode of transmission and prevention. Awareness programmes should be initiated among the MBBS students in the first year itself, so that these lacunae can be rectified.

Keywords: Awareness, STD, Risky behaviour, ICTC

INTRODUCTION

AIDS is acquired immuno-deficiency syndrome caused by a retrovirus known as Human Immunodeficiency Virus (HIV) which affects the body's immune system. Due to infection the victim is vulnerable to many lifethreatening opportunistic infections. Since the discovery of HIV/AIDS in 1981, it has been an important public health problem and currently it is the fourth leading cause of death globally. Nearly 35.3 million people living with HIV in 2012 worldwide. Globally people with newly detected HIV infection is 2.7 million

and nearly 2 million deaths are due to AIDS. Among the new cases nearly, 40% of them belonged to the age group of 15-24 years.^{6,7} Globally as per WHO it has been estimated that about 40 million PLHA cases between the ages of 15-24 will be reached by 2020.⁸

The first case of HIV in India was detected in Chennai in the year 1986 and over the years AIDS has become one of the leading causes of morbidity and mortality in India. As per the report by National AIDS Control Organization of India, the prevalence of AIDS in India is 0.27% in the year 2011. 9 It is estimated that nearly 7 million people are

infected with HIV in India alone. ¹⁰ Every year 2.6 million new cases of HIV occurs in India and globally India ranks 3rd in the burden of HIV. ^{11,12}

Younger generation is more prone for contracting HIV due to their tendency to follow high risk behaviour and improper guidance. There are many misconceptions prevailing in the community regarding HIV/AIDS.as there is no cure for AIDS and non-availability of vaccine places prevention as a main strategy in reducing the burden of the disease. The gaps in the knowledge and attitude towards HIV/AIDS can be bridged by proper health education by qualified persons. Health care professionals occupy a frontline position in the prevention of AIDS.

With this background this study was planned to assess the knowledge and attitude towards HIV/AIDS among 1st year MBBS students of Sree Balaji Medical College and Hospital.

METHODS

Study design

This is a descriptive cross sectional study.

Study area

The study was conducted in Sree Balaji Medical College and Hospital, Chromepet, Chennai.

Study population

Study population includes 1st year MBBS students studying in Sree Balaji Medical College and Hospital, Chromepet, Chennai.

Study period

This study was conducted from August 2017 to October 2017.

Inclusion and exclusion criteria

All the 1st year MBBS students who gave consent to participate were included in the study and those who didn't give consent were excluded from this study.

Sample size

Sample size of this study was calculated using the previous study done by Kuruvila in which the knowledge about HIVAIDS is 64.9%.¹⁰ Using the formula 4pq/L², the sample size was calculated to be 214 with an absolute precision of 10%. Adding 10% refusal rate, the sample size was calculated to be 237, which was rounded off to 240.

Sampling method

Universal sampling method was used to select the study participants for this study.

Study tool

A pretested structured questionnaire was used to collect the data. Questionnaire consists of background information and questions to assess the knowledge, attitude towards HIV/AIDS. The interview schedule consisted of 9 questions on knowledge and 7 on attitude.

Data analysis

For each of the study component, the correct response to the question was given a score of '1' and any other response was given '0' score. The maximum score that could be obtained at the end of the interview was '9' for knowledge, '7' for attitude. A score of 4 and above was taken as adequate knowledge and a score of 4 and above is considered as positive attitude. All the data collected were entered into the Microsoft excel. The data analysis was carried out using SPSS software version 22. The level of knowledge and attitude towards HIV/AIDS was calculated using percentage.

Ethical clearance

The study was carried out after obtaining clearance from the institutional ethical committee.

Informed consent

Data was collected after obtaining written informed consent.

RESULTS

Socio-demographic characteristics of the study population

Socio-demographic characteristics of the study population are depicted in Table 1. Among the study sample of 240, females were 57.5% and 42.5% of the respondents were male.in his study 72.3% were Hindus, 13.6% were Christians, 9.2% were Muslims and the rest 4.9% belonged to other religion. Majority of the study samples, nearly 80.1% belonged to nuclear type of family and 19.9% belongs to joint family.

Knowledge regarding HIV/AIDS among the study participants

In this study 63% of them knew what AIDS stand for. Only 37.2% of the respondents correctly answered the causative agent of AIDS as HIV.in this study 92% knew that AIDS can be transmitted by unsafe sex. 75% of the study participants had a misconception that AIDS can be transmitted by sharing utensils/toilets. Nearly 87.8% of them said that AIDS can be transmitted by sharing

needles/blood transfusion. Almost 94% of the study samples knew AIDS is preventable. Regarding the modes of prevention 65% of them knew AIDS can be prevented by having single sexual partner, 72.9% of hem knew

AIDS can be prevented by avoiding contact with commercial sex worker and 88.7% knew that AIDS can be prevented by using condoms.

Table 1: Socio-demographic characteristics of the study population.

S. No	Socio-demographic variable	Frequency (n=240)	Percentage (%)	
1.	Sex			
	Male	102	42.5	
	Female	138	57.5	
2.	Religion			
	Hindu	173	72.3	
	Christian	33	13.6	
	Muslim	22	9.2	
	Others	12	4.9	
3.	Family type			
	Nuclear family	192	80.1	
	Joint family	48	19.9	

Table 2: Knowledge regarding HIV/AIDS among the study participants (n=240).

S. No	Knowledge regarding HIV/AIDS	Frequency (N)	Percentage (%)			
1.	What does aids stands for?					
	Correct	152	63			
	Incorrect	88	37			
2.	What is the causative agent for AIDS?					
	Correct	89	37.2			
	Incorrect	151	62.8			
3.	AIDS can be transmitted by unsafe sex?					
	Yes	221	92			
	No	19	8			
4.	AIDS can be transmitted by sharing utensils/toilets?					
	Yes	180	75			
	No	60	25			
5.	AIDS can be transmitted by blood transfusion/sharing needles?					
	Yes	211	87.8			
	No	29	12.2			
6.	Is AIDS preventable?					
	Yes	226	94			
	No	14	6			
7.	AIDS can be prevented by having single sexual partner?					
	Yes	156	65			
	No	84	35			
8.	AIDS can be prevented by avoiding contact with commercial sex workers?					
	Yes	175	72.9			
	No	65	27.1			
9.	AIDS can be prevented by using condoms?					
	Yes	213	88.7			
	No	27	21.3			

Attitude towards HIV/AIDS among the study participants

Attitude towards HIV/AIDS in this study is shown in Table 3. Among the study participants 87% of them are

willing to get tested for HIV and nearly 75% said that premarital HIV testing should be made compulsory. Almost 65.8% of the samples felt even a single unsafe sex may lead to HIV/AIDS. In this study nearly 61.6% of the study respondents are willing to take care of a relative

with HIV/AIDS in their home. Only 57.9% of the participants are willing to stay with their friend with an HIV/AIDS. Around 55% of them only are willing to send

their sibling to a school with HIV/AIDS affected children.in this study only 39.2% of them feel that HIV/AIDS should not be out casted from the society.

Table 3: Attitude towards HIV/AIDS among the study participants (n=240).

S.no	Attitude towards HIV/AIDS	Frequency (N)	Percentage (%)			
1.	Are you willing to get tested for HIV?					
	Yes	209	87			
	No	31	13			
2.	Premarital HIV testing should be made compulsory?					
	Yes	180	75			
	No	60	25			
3.	Even one unsafe intercourse could lead to HIV/AIDS?					
	Yes	158	65.8			
	No	82	34.2			
4.	I would take care of a relative with HIV/AIDS at my home?					
	Yes	148	61.6			
	No	92	38.4			
5.	I would stay with my friend with HIV/AIDS?					
	Yes	139	57.9			
	No	101	42.1			
6.	I would allow my siblings to go to a school which has children with HIV/AIDS?					
	Yes	132	55			
	No	108	45			
7.	Should an HIV/AIDS patient be outcast from the society?					
	Yes	94	39.2			
	No	146	60.8			

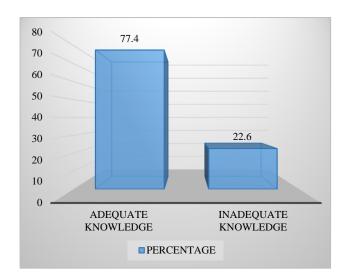


Figure 1: Overall knowledge towards HIV/AIDS among the study population.

Overall knowledge towards HIV/AIDS among the study population

Overall, respondents had a mean $(\pm SD)$ score of knowledge of 5 (± 2.6) from 9 knowledge-related questions.46.3% were classified as having a high level of

knowledge with a knowledge score of \geq 7 correct responses, 31.3% as medium level of knowledge with 4-6 correct responses and 22.4% as low level of knowledge with \leq 3 correct responses regarding knowledge on HIV/AIDS. Respondents with high and medium level of knowledge are considered to be having adequate knowledge. Nearly 77.6% of the study participants had adequate knowledge which is depicted in Figure 1.

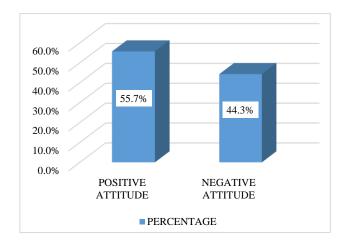


Figure 2: Overall attitude towards HIV/AIDS among the study population.

Overall attitude towards HIV/AIDS among the study population

Of the 7 questions that addressed attitudes toward HIV transmission (3 questions) and PLHIV (4 questions), the scores ranged from 2 to 5 (mean score=3.5, SD±4.0). Accordingly, 55.7% of students scored equal or more than the mean and were classified as having a positive attitude towards PLHIV. A total of 44.3% were classified as having a negative attitude toward PLHIV because they scored less than the mean.

Association between socio-demographic variables and knowledge and attitude towards HIV/AIDS among the study participants

In this study there was a statistically significant association between sex and knowledge about HIV/AIDS (p<0.0001). Family type was also statistically significant associated with knowledge (p<0.0001). Religion was not associated with knowledge. Family type was statistically significant associated with positive attitude (p<0.0001). Religion was associated with positive attitude (p<0.0001). There was no association between sex and positive attitude in this study.

Table 4: Association between socio-demographic variables and knowledge about HIV/AIDS among the study participants

	Socio-demographic variable		Total frequency (n=240)	Adequate knowledge		
S.No				Frequency (n=186)	Chi-square value	P value
1.	Sex	Male	102	62	25.617	<0.0001*
		Female	138	124		
2.	Religion	Hindu	173	132	0.511	0.474
		Others	67	54		
3.	Family type	Nuclear family	192	163	30.113	<0.0001*
		Joint family	48	23		

Table 5: Association between socio-demographic variables and attitude towards HIV/AIDS among the study participants.

S.No	Socio-demographic variable		Total frequency (n=240)	Positive attitude Frequency (n=134)	Chi-square value	P value
1.	Sex	Male	102	56	0.076	0.782
		Female	138	76		
2	2. Religion	Hindu	173	78	29.022	<0.0001*
2.		Others	67	56		
3.	Family type	Nuclear family	192	96	13.247	<0.0001*
		Joint family	48	38		

DISCUSSION

Socio-demographic characteristics of the study population

Regarding distribution of the socio-demographic factors in our study, 42.5% were males and 57.5% were females. In a study done by Baria et al in Valsad. In our study, the distribution of religion were Hindus 72.3%, Muslims 13.6%, Christians 9.2% and others 4.9%. Whereas in a study done by Hansson et al in Kazhikstan 52.8% were males and 47.1% were females. 47% were Muslims, 44% were Christians, others comprised of 9%. 13

Knowledge regarding HIV/AIDS among the study participants

Regarding adequate overall knowledge in study participants was found to be 77.6% in our study. Whereas

in a study done by Indradevi et al. It was found to be 100%. In a study conducted by Mishra the overall knowledge among drug operators was found to 72.7%. It

Attitude towards HIV/AIDS among the study participants

Regarding attitude towards sex, 75% of participants in our study felt that premarital testing was compulsory. In a similar study done by Kuruvila et al majority of them (94.73%) felt that testing for HIV should be made compulsory before marriage. In our study, 55% of students said that they would be willing to allow their siblings to continue studying in a school with HIV affected students. In a similar study done by Thanavanh, nearly half of the surveyed students (45.3%) said that they would be willing to continue studying in a school with HIV-positive friends. In our study, overall positive attitude was observed among 55.6% participants whereas

in a study done by Thanavanh. Overall positive attitudes towards HIV/AIDS were observed among 55.7% of respondents.

CONCLUSION

In this study 77.4% of the study participants had adequate knowledge and 55.7% of them had positive attitude towards HIV/AIDS. This knowledge and attitude study was to assess the current level of knowledge among first year MBBS students about AIDS at the point of entry to medical course. Few misconceptions were found to exist regarding mode of transmission and prevention of HIV/AIDS.

Recommendations

This study gives a new insight to the existing problem. Still the gaps in knowledge and attitude has to be bridged by effective Information Education and Communication (IEC) methods and Behavioural Change Continuum (BCC) methods. Adequate awareness creation will curb the rates of this disease. National Aids Control Program (NACP) coverage must be widened and adequate funds must be allocated for prevention of HIV/AIDS related activities Awareness programmes should be initiated among the MBBS students in the first year itself, so that these lacunae can be rectified.

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