

Original Research Article

Knowledge and attitude about sexually transmitted infections among paramedical 1st year students in a tertiary care teaching institute in Pondicherry

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ABSTRACT

Background: Sexually transmitted infections (STI's) are transmitted through sexual intercourse. Young individuals of 16-24 yr age group are more prone to STIs because they lack adequate knowledge about STIs and tend to have wrong perceptions towards sex. Thus it becomes important to assess the knowledge level about STIs among this age group. The main objective of this study was designed to evaluate the knowledge, awareness, perception and attitude about STIs among paramedical 1st year students in a tertiary care institute.

Methods: The study was a descriptive cross sectional study. Detailed questionnaire eliciting information about knowledge, awareness, perception and attitude of the respondents towards STIs was administered to 227 paramedical 1st year students. This self-administered questionnaire was used for data collection.

Results: 227 paramedical students participated in this study. Among them 103 (45%) were males and 124 (55%) females. Majority of the students (68%) got the source of information of STIs from education in school and college, 57% from internet and 49% from print media. 95% of the respondents knew about at least one STI. The two most commonly mentioned STIs were HIV (60%) and Syphilis (41%). 7% did not have any knowledge about STI. 68% mentioned sex with multiple partners as a mode of transmission and 46% knew unprotected sex. 17.6%-21.6% of them had misconception about mode of transmission. 49.8% mentioned weakness, 47.6% loss of weight as the symptoms of STIs where as 25.6% did not know anything about symptoms at all. Majority of respondents (60%) did not know about the complications of STDs. Also attitude towards sexual health and prevention of STIs was variable.

Conclusions: Findings of our study showed that it is important to orient the paramedical students about sexual health and positive attitude towards STIs. This will help in prevention and control of STIs.

Keywords: Sexually transmitted disease, Attitude, Paramedical students

INTRODUCTION

Sexually transmitted infections (STI's) are transmitted through sexual contact. Young individuals of 16-24 yr age group are more prone to STIs than older individuals because they tend to practice unprotected sex and are likely to have multiple sexual partners. Thus it becomes

important to assess the knowledge level about STIs among this age group. The earlier studies were mainly among school children.¹ Although few studies were done among university students, they were from different socio-cultural background from other countries.^{2,3} So far no study on knowledge and attitude about STIs has been conducted among para medical students from India.

The main objective of this study was designed to evaluate the knowledge, awareness, perception and attitude about STIs among paramedical 1st year students in a tertiary care teaching institute.

METHODS

The study was a descriptive cross sectional study done for a period of one month from 1st September 2017 to 30th September 2017 among the paramedical 1st year students of Allied Health Sciences in Aarupadai Veedu Medical College, Pondicherry. Self administered pre tested and pre validated questionnaire was used for data collection. Questionnaire consist of questions regarding knowledge, awareness and perception of the respondents like types of STIs, modes of transmission, symptoms and signs, complications, preventions and attitude towards STIs and sexual health. Totally 227 para medical 1st year students who were willing to participate in this study were included. Ethical clearance was obtained from institutional ethical committee. Data was entered and analysed in MS excel. The results are expressed in numbers and percentages.

RESULTS

Total of 227 paramedical first year students, including 103 (45%) males and 124 (55%) females were enrolled in the study.

The mean age of the study population was 19 ± 2 yr (16-24 yr). The male to female ration is 1:1.24. 227 students filled out the questionnaire and written response rate is 100%.

Education in schools and colleges was the main source of information in more than half of the study population i.e., 67.8%, followed by internet in 56.8% students, books, magazine and newspaper in 49%, friends in 41.4%, TV and radio in 36.5% and movies and serials in 31.1%. The least common source of information was obtained from doctors by 50 participants 22.0% and from relatives by 18.5% (Table 1).

Table 1: Source of information about sexually transmitted infection (n=227).

Source	N (%)
Education in school and college	154 (67.8)
Internet	129 (56.8)
Book/magazine/newspaper	110 (49)
Friends	94 (41.4)
Television/radio	3 (36.5)
Movie/serials	71 (31.1)
Doctor	50 (22)
Relatives	42 (18.5)

Regarding knowledge about types of STIs, 59.9% and 40.9% of them knew HIV and syphilis as a type of STIs

respectively. 24.6% knew herpes simplex, 23.8% gonorrhea and 20% hepatitis B and C as a type of STIs. Only 15.8% knew about anogenital warts, 13.2% about lymphogranuloma venereum, 12.7% about trichomoniasis and 12.3% about chancroid as a type of STIs. Incorrect knowledge about the type of STIs was also prevailing among the students. 30.8% of them marked tuberculosis as STIs, 28.6% sickle cell anemia and 28.6% marked asthma as STIs (Table 2).

Table 2: Knowledge about type of sexually transmitted disease (n=227).

Type of STD's	N (%)
HIV	136 (59.9)
Syphilis	93 (40.9)
Tuberculosis	70 (30.8)
Sickle cell anemia	65 (28.6)
Asthma	65 (28.6)
Herpes simplex	56 (24.6)
Gonorrhea	54 (23.8)
Hepatitis B and C	50 (20.0)
Ano-genital wart	36 (15.8)
Lympho granuloma venereum (LGV)	30 (13.2)
Trichomoniasis	29 (12.7)
Chancroid	28 (12.3)

Table 3: Knowledge about routes of transmission (n=227).

Route of transmission	N (%)
Sex with multiple partners	142 (62.5)
Infected mother to child	116 (51.1)
Needle and syringe sharing	114 (50.2)
Sexual intercourse	107 (47.1)
Unprotected sex/not using condoms	105 (46.3)
Sex with prostitutes	89 (39.2)
Misconception about mode of transmission of STDs	
Kissing	49 (21.6)
Sharing cloths/food/other things	
Cough and sneezing	46 (20.3)
Sharing toilet	43 (18.9)
Hugging/shaking hands with infected people	40 (17.6)

Regarding knowledge about the route of transmission, majority of students have correct information about different modes of transmission. 62.5% mentioned sex with multiple partners, 51.1% mother to child transmission, 50.2% sharing of needles and syringes, 46.3% unprotected sex and 39.2% mentioned sex with prostitutes as the routes of transmission. Misconceptions about the route of transmission of STIs were also prevailing among these students. 21.6% marked kissing as mode of transmission, followed by 21.1% sharing of cloths and food, 20.3% cough and sneezing and 17.6%

hugging and shaking hands as modes of transmissions (Table 3).

Regarding awareness about signs/symptoms of STIs, half of the study population (50.7%) considered discharge from penis/vagina as symptom of STIs whereas 49.8% of students considered weakness, 47.6% loss of weight and 37.6% students considered ulcer/warts in the genital area as symptoms/signs. 25.6% of the students did not know anything about signs/symptoms of STIs (Table 4).

Table 4: Awareness about signs and symptom of STDs (n=227).

Signs/symptoms	N (%)
Ulcers/wounds/warts in genital area	85 (37.6)
Discharge from penis/vagina	115 (50.7)
Burning/pain on passing urine	61 (26.9)
Pain during sexual intercourse	58 (25.6)
Itching over genital area	56 (24.5)
Blood in urine	65 (28.6)
Loss of weight	108 (47.6)
Weakness	113 (49.8)
Don't know	58 (25.6)

Cervical cancer, infertility, still births and abortions were the options given to the students to assess the knowledge about the complications of STIs. Most of the students 59.5% had no knowledge about the complications and they marked "Don't Know" as the response. 6.6% of them marked "None of the above" as answer. Hence (59.5% + 6.6% = 66.1%) 66.1% of the students were not

aware about complications of STIs. Only 13.2% of students had correct knowledge about the complications of STIs as they marked "All of the above" choice (Table 5).

Table 5: Knowledge about complications of sexually transmitted infections (n=227).

Complications of STIs	N (%)
Cervical cancer	42 (18.5)
Infertility	33 (14.5)
Still births	19 (8.3)
Abortions	20 (8.8)
All of the above	30 (13.2)
None of the above	15 (6.6)
Don't know	135 (59.5)

Table 6: Knowledge about prevention of STIs (n=227).

Prevention method	Yes, N (%)
Condoms protect against STD	128 (56)
Banning prostitution can control spread of STD	72 (32)
Remaining faithful to single partner	102 (45)
Doing blood test before marriage/child birth	99 (44)
Counseling center help in prevention and control of STD	118 (52)
Not sharing needles & syringes	110 (48)
Don't know	15 (7.1)

Table 7: Attitudes towards STD and sexual health (n=227).

Parameters, N (%)	Agree	Disagree	Don't know
Masturbation harmful to health	62 (27.3)	34 (14.9)	126 (55.5)
Watching/reading pornographic materials can contribute to risky sexual practices	60 (26.4)	44 (19.38)	120 (52.8)
Sex education should be given for students in schools and college	103 (45.3)	32 (14.1)	88 (38.7)
STD are not dangerous because they can be cured	35 (15.4)	71 (31.3)	115 (50.6)
STD can cause death if untreated	76 (33.48)	33 (14.5)	115 (50.6)
One should wait until marriage to have sex	92 (40.5)	26 (11.5)	105 (46.3)
People who are infected with STD must get treatment	98 (43.2)	28 (12.3)	100 (44.1)
Person who does not want to get infected with STD should use emergency contraceptive pill	54 (23.8)	39 (17.2)	130 (57.3)

Majority of the students had correct knowledge about methods of prevention. More than half of the students (56.4%) agreed 'use of condoms' as a method of protection against STIs, 51.9% of them opined 'counseling center' for prevention, 48.5% of them agreed 'not sharing needles and syringes', 44.9% opined 'remaining faithful to single partners', 43.6% 'doing blood test before marriage/ child birth' and 31.7% of them 'banning prostitution' as prevention method. Only very few students (7.1%) did not know any of the prevention methods mentioned (Table 6).

Regarding attitude only 27.3% of students agreed masturbation to be harmful to health, where as 14.9% students disagreed with it and 55.5% students did not know its ill effects on health. 45.3% students agreed sex education should be given to students whereas 14.1% students disagreed for the need for sex education and 38.7% students were unsure. Only 15.4% students agreed that STIs can be curable, where as 31.3% disagreed and 50.6% did not know whether STIs can be cured or not. 43.2% students agreed that infected persons must get treatment whereas 12.3% disagreed with it and 44.1%

students were not sure whether the infected person should get treatment or not. 26.4% of students agreed that watching/reading pornographic materials can lead to risky sexual practices, whereas 19.4% disagreed with it. More than half of the study population (52.8%) were not sure whether watching/ reading pornographic materials can contribute to risky sexual practices. 23.8% students thought use of emergency contraceptive pills could prevent STIs, while 57.3% students had no idea about it. Only 17.2% students disagreed with that statement (Table 7).

DISCUSSION

Inadequate knowledge about STIs and fear of patients affected with STIs may cause a serious problem among health care professionals because they consider themselves to be at risk of contracting the infection. Wrong knowledge and fear of STIs among health care professionals may result in derogatory behavior towards patients infected with STIs.

The main objective of our study was to assess the knowledge, awareness, perception and attitude among paramedical 1st year students regarding STIs. Our study showed 67.8% of students came to know about STIs through school and college education. This is good news because the information given in school and college would be correct and complete. Most of the students gained their knowledge about STIs through internet, books/magazine, friends, TV/ radio, movies/serials and relatives. The knowledge gained by these media might not be correct, complete and also might mislead the student since not all the contents is scrutinized by qualified health professionals. Only 22% gained their knowledge through doctors.

HIV and Syphilis were the well-known types of STIs in our study. This is in consistent with the studies of Nagesh et al, Uike et al and Zubeyde et al.^{1,4,5} And the least known STIs were anogenital wart, LGV, trichomoniasis and chancroid. Further there were 30% of students who thought tuberculosis, sickle cell anemia and asthma to be type of sexually transmitted infections.

The low level of knowledge about anogenital warts, LGV, trichomoniasis and chancroid compared to HIV and syphilis among the students could be attributed to frequent common education programs on HIV and not emphasizing the issues about other STIs.

The knowledge about transmission of STIs was fairly good in our study (39-62%). The routes of transmission considered by most of the students (50-62%) were sex with multiple partners, infection from mother to child and sharing needles and syringes.

Similar to other studies certain misconceptions about transmission of STIs were also prevalent in our study.^{1,2} Commonest misconceptions in our study were

transmission through kissing, sharing of cloths/food, cough and sneezing, sharing toilets and hugging/shaking hands with infected person (17-21%).

Regarding sign/symptoms half of the students (50.7%) considered discharge from penis/vagina as the most suspicious feature of STIs. Other signs/symptoms were less well known. 37.6% of students considered ulcer and warts in genital area as symptoms and signs. Nearly half of the students i.e., 49.8% thought loss of weight and weakness as symptoms. 25.6% of students did not know any of the signs/symptoms given. Thus students did not have indebt knowledge about the presentation of STIs. A similar finding has been published by Amu and Adeg, and by many other studies conducted at different geographical locations.⁶⁻¹⁰

Regarding complications of STIs, 66.1% of the students were not aware about complications of STIs. Only 13.2% students considered cervical cancer, infertility, still births and abortions as complications. This means most of our study population was not aware of the complications of STIs.

Majority of the students had correct knowledge about methods of prevention. More than half of the students (56.4%) agreed 'use of condoms' as a method of protection against STIs, 51.9% of them opined 'counseling center' for prevention, 48.5% of them agreed 'not sharing needles and syringes', 44.9% opined 'remaining faithful to single partners', 43.6% 'doing blood test before marriage/child birth' and 31.7% of them 'banning prostitution' as prevention method. Only very few students (7.1%) did not know any of the prevention methods mentioned. So our students had fair knowledge about the prevention of STIs.

The attitude of the students about sexual health was variable. Only 27.3% of students felt masturbation to be harmful to health whereas 55.5% of students did not know about its ill effect on health.

45.3% of students agreed that sex education should be given for students, whereas only 14.1% students disagreed with it and 38.7% students did not know whether sex education should be given or not.

Only 26.4% students agreed that watching and reading pornography material could contribute to risky sexual practices.

About 40.5% students answered that they would wait until marriage to have sex. 43.2% student felt infected person should get treatment whereas 44.1% students did not know whether treatment is to be given or not.

23.8% students thought use of emergency contraceptive pills could prevent STIs, while 57.3% students had no idea about it. Only 17.2% students disagreed with that statement. In the study by Nagesh et al almost 1/3 of the

students felt emergency contraceptive pills could prevent STIs.¹ This point has not been discussed much in earlier studies.⁹⁻¹²

CONCLUSION

Our study group though had fair knowledge about the routes of transmission and prevention of STIs, did not have enough information regarding types, signs/symptoms, complications of STIs and right attitude towards these infections. Our study suggested that organizing training sessions on STIs at regular intervals and conducting awareness programs in the form of lectures and quiz programs will promote a good delivery of correct information to para medical students. This is important because they will be dealing with the patients affected with various STIs in future and they are the major work force present in the health sector globally.

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