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Knowledge of college students regarding Sexually Transmitted Infections – A cross sectional study in Bhopal, M.P

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ABSTRACT

The STI proves to be a disease of public health importance because most of the infections go unnoticed and may still have serious effects or complications in the future. over (6%) of the adult population in India suffer from one or other STI/RTI episode annually. Since half the incidence of STI are among the 15-24 years old, this study was conducted with the objectives to assess the knowledge regarding STIs among college students in Bhopal and to educate them regarding causes, risk factors, modes of transmission, prevention, early detection and reporting of STI, using A-V aids.

Materials and Methods

This was an educational intervention study conducted among college students of Bhopal over a period of 3 months. Data were collected using a pre-designed questionnaire which consisted of questions to assess the knowledge related to STI. After this, educational intervention was given to the study participants regarding causes, risk factors, prevention, early detection and reporting of STIs using audio-visual aids. Data was entered in Excel and statistical analysis was done in SPSS.

Results

(71.4%) of students have heard of STI and HIV/ AIDS was the most known STI among the participants (61%), while trichomoniasis was known by none. Only (34.4 %) participants were aware of the route of transmission of STI as through sexual contact. (81 %) think that STIs are preventable. The awareness of STI clinics was only (29.8%).

Conclusion

The findings from the present study highlights the gaps and the need to create awareness about Sexually Transmitted Infections including HIV among college students.

Keywords: Bhopal, College students, Knowledge, STI.

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INTRODUCTION

STIs have a profound effect on reproductive and sexual health. More than 1 million curable STIs are acquired every day in people 15–49 years old, the majority of which are asymptomatic. In 2020, WHO estimated 374 million new infections with 1 of 4 STIs: chlamydia 129 million gonorrhoea 82 million, syphilis 7.1 million and trichomoniasis 156 million [1,2] Sexually Transmitted Infections (STI) are caused by many types of infectious organisms which have significant chance of spread through human sexual intercourse including vaginal, oral or anal.[1]There are more than 30 types of viruses, bacteria and parasites which can cause STI.[2] The most general ones are gonorrhea, chlamydia, chancroid, viral warts. The STI proves to be a disease of public health importance because, most of the infections go unnoticed and may still have serious effects or complications in the future.[3] The most important reason why STIs should be focused and try to reduce the burden is that these infections are preventable. Hence a good awareness about the preventive techniques and the correct practice of the same, would lead to great deal in reducing the incidence of STI. [4] STI are one of the top five reasons for the adults to seek healthcare.[5] According to community based STI/RTI prevalence study 2003 over (6%) of the adult population in India suffer from one or other STI/RTI episode annually.[6] The young age group, in which sexual behaviors and health habits are beginning to be shaped, have to be identified and appropriate awareness be generated. There are two main reasons why adolescents and young adults should be educated about the STI. Firstly, since most of the infections are asymptomatic at initial stages, it might be too advanced to cure or might have caused irreversible damages by the time it comes to clinician notice. Secondly, the transmission of the infection during this asymptomatic period, increases the burden of public health problems. Since half the incidence of STI are among the 15-24 years old, this study was planned to find their knowledge on STI. The objective of the study was to assess the knowledge regarding STIs among college students in Bhopal and to educate them regarding causes, risk factors, modes of transmission, prevention, early detection and reporting of STI, using A-V aids.

Methodology

This was an educational intervention study conducted among college students of Bhopal to find their awareness, knowledge and attitude towards Sexually Transmitted Infections. The study was done over a period of 3 months. Permission was seeked from the Dean of 3 colleges which were selected purposely based on their students strength. The college from where permission was granted first was taken up for the study. All the students from first to third year of the course were informed about the study and those who were willing to participate and were present on the day of study were included. Data were collected using a pre-designed questionnaire which consisted of questions to assess the knowledge regarding symptoms,modes of transmission, modes of non-transmission,risk factors and preventive measures for STI. After this, educational intervention was given to the study participants regarding causes, risk factors, prevention, early detection and reporting of STIs using audio-visual aids. Data was entered in Excel and statistical analysis was done in SPSSv21. Data was presented in number and percentage.

Results

There were a total of 154 students from all the three years from different branches. Out of 154 students, (80%) were male and (20%) female. The mean age of the participants was 18.6 (2.7) years. Nearly half the participants (49%) were in the age group of 18-20 years. Most of the students (72 %) were staying with their family.

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Table 1: Socio demographic variables of study participants

Variables	Frequency	Percentage
Gender		
Male	123	80
Female	31	20
Age (in years)		
<18	52	33.8
18- 22	96	62.3
>22	6	3.9
Accommodation		
With Family	111	72
Hostel	43	28

Participants' knowledge on STI : Among the study participants, (71.4%) have heard of STI. It was found that HIV/ AIDS was the most known STI among the participants (61%), while trichomoniasis was known by none.

Table 2: Distribution of participants based on knowledge on STI

Heard of Sexually transmitted Infections	Frequency (%)
HIV/AIDS	94 (61)
Genital herpes	10 (6.5)
Gonorrhoea	9 (5.8)
Chancroid	6 (3.9)
(Lymphogranuloma venereum	4 (2.6)
Syphilis	3 (1.9)

Source of information

Most of the students have got information on STI from their teachers (34.4%) followed by a doctor/ health worker (22.1%).

Modes of transmission

Only (34.4 %) participants were aware of the route of transmission of STI as through sexual contact, while shared needles, using contaminated needles and maternal transmission were known by (27%),(25%) and (3.2%) respectively. Unprotected intercourse (47.4%), pre-marital intercourse (36.6%) and lack of awareness (36.6%) were the most known risk factors for STI among the participants.Only half the participants were aware that STI could not spread through shaking hands (50%). While (51.3 %) and (55.9%) participants still believed sharing food with an infected person or mosquito bites can spread STI.

Table 3 : Distribution of participants as per their awareness and attitude based on gender

Study Variable	Male (n=123)	Female (n=31)	Total (n=154)
Have heard of STI	86 (69.9)	24 (77.4)	110 (71)
Have heard of HIV	100 (81.3)	25 (80.6)	125 (81.1)
STI is preventable	97 (78.9)	28 (90.3)	125 (81)
Aware about STI clinic	39 (31.7)	7 (22.5)	46 (29.8)
It is important to consult a doctor when symptomatic	99 (80.5)	27 (87)	126 (81.8)
Discussing with parents is crucial	54 (43.9)	18 (58)	72 (46.7)
Sex education is needed	101 (82.1)	29 (93.5)	130 (84.4)
HIV patients should be isolated	44 (35.7)	10 (32.2)	54 (35)

Most of the participants (71%) have heard of STI. Only (81 %) think that STIs are preventable. Awareness of STI clinics was only (29.8%). More females (58%) felt it was crucial to consult with parents about STI and that sex education was needed to create awareness (93.5%).

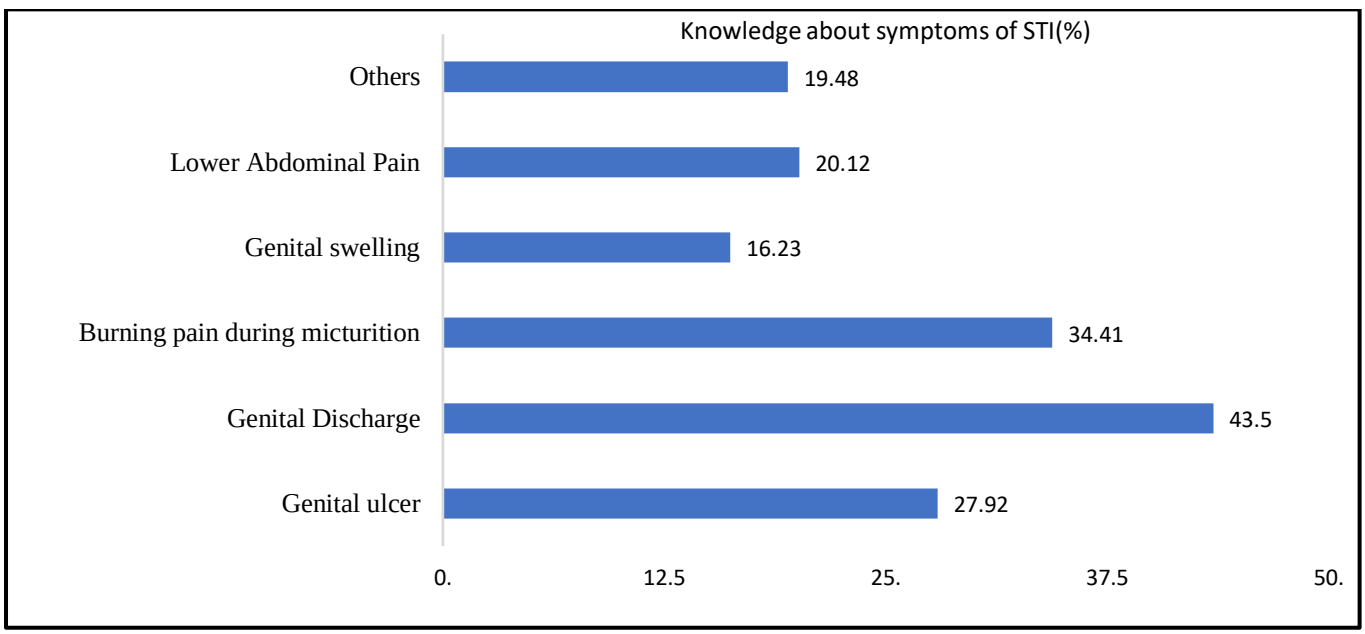

Figure 1: Distribution of participants based on knowledge about the symptoms of STI

Genital discharge (43.5%) was the most commonly known symptom of STI followed by burning and painful micturition (34.4%). Use of condoms (66.2%), a single faithful partner (53.2%) and availing single use needle and syringe (48.7%) were the most known preventive measures of STI by the participants.

Discussion

The present study established the knowledge of non-medical college students about STI. Most of the

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participants (62.3%) in the present study were in the age group of 18-22 years. Nearly most of the studies on STI have been conducted in adolescents and the youth population as they are at high risk of acquiring STI due to their curious nature. [7,8,9,10] Similar to the present study, majority of the participants were males (73%) in Subbarao and Akhilesh study.[11 12,13] Only (71%) participants have heard of STI while 90% in Subbarao and Akhilesh study[11], (88.5%) in Demis et al study[8], (86.6%) in Folasayo et al study[10] have heard of STI and a majority of the participants had heard of gonorrhoea, syphilis and AIDS in Sekirime et al study.[14] The present study participants had the lowest awareness as compared to other studies. Hence this is an important and urgent health issue which needs to be addressed among the study participants.

(81.1%) participants were aware of HIV / AIDS in the present study which was similar to Folasayo et al study [10](83.6%) and Demis et al study (88.8%)[8]. In contrast,(99.6%) and (99.2%) students have heard of HIV in Ruikar's [7]and Subbarao et al study[11] respectively. While Ruikar's study included science stream students also, Subbarao et al study had all engineering students only. The present study participants were enrolled for Diploma courses and the level of education in turn might influence their awareness on HIV / AIDS as similar results were noted in Asante et al study where students were enrolled from ten different branches. [15]Trichomoniasis was not known by any study participant in the present study, similar to Folasayo et al study [10]where it was the least known (21%) STI among the study participants. In contrast, in Demis" et al study[8], (44.4%) were aware of Trichomoniasis. Teachers (34.4%) were the main source of information about STI in the present study. It was similar to Subbarao and Akhilesh study (58%)[11].In Folasayo et al and Ruikar's study[7,10], Internet (77.3%) and (47%) was the main source of information among most of the participants. In Sekirime et al study[16], friends (92.5%) were the major source of information about STI for males while newspapers and magazines (90.5%) were the common source of information for females. Radio/ television was the most common source (82.6%) of information in Demis et al [8]and Henok et al (83%) study[9] as compared to only (7.1%) in the present study.

Sexual transmission of STI was known by (34.4%) participants. While unprotected and pre- marital intercourse were considered as risk factors for STI by (47.4%) and (36.6%) of the participants. In Ruikar's study[7] (98.2%) , Sekirime et al study[16] (92.7%) were aware that unprotected intercourse predisposes to STI. While in Henok et al study only (59.8%) were aware of the modes of transmission of STI[9].

(43.5%) of the present study participants were aware of genital discharge as a symptom of STI while (69.8%) were aware of it in Ruikar's study[7]. (77%) and (88%) females were aware of abnormal vaginal discharge as a symptom in Sekirime et al and Demis et al studies respectively[14,8]. In Henok et al study (64.7%) were aware of the symptoms of STI.(65.4%) of the students in Folasayo et al study[10] knew that painful micturition is a symptom of STI while only (34.4%) of the present study participants were aware of it. As compared to other studies, the participants from the present study had the lowest awareness of the symptoms of STI. To bridge the gap, appropriate health education has to be designed.

According to the present study, use of condoms for prevention was suggested by (66.2%) participants. This was similar to the Folasayo et al study where (76.4%) knew that use of condoms reduce the risk of infection [10].Demis et al found that (88.9%) of their study participants found STI as a preventable disease[8]. But (94%) were aware of condoms being protective in Sekirime et al study[14], (89.6%) in Ruikar's study[7] and (84.5%) in Henok et al study[9]. There is a gap in the knowledge on preventive practice by the study participants.
In the present study (29.8 %) participants were aware of STI clinics while (81.8%) felt it was important to consult a doctor for symptoms of STI. Similar findings were noted in Ruikar's study where (52%) preferred to consult a general practitioner over (5.4%) who preferred going to STI clinic.[7] Special counselling services are available for the

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adolescents in the STI clinics. Only if they are made aware of the existence of such facilities, they will be able to avail it.[16]

While (46.7%) of the present study participants felt it was crucial to discuss about STI with parents, (52%) participants from Henok et al study never discussed it with family members.[9]Evidence suggests that there is a positive outcome when parents are engaged in discussing and guiding their children' reproductive health.[17,18]Majority of the study participants (84.4%) felt the need for sex education, similar to Subbarao and Akhilesh study (94.2%)[11]. As it was evident in the present study there is a huge gap in the knowledge of the students about STI. It is also the felt need of them. Hence appropriately designed student friendly tailored health education on STI and HIV is the need of the hour.

Conclusion

The present study has given a picture of the current awareness of undergraduate college students. The findings from the present study highlights the gaps and the dire need to create awareness about Sexually Transmitted Infections including HIV among college students. This has to be carefully designed and delivered by the college stakeholders. Since sexual health is a less researched topic among the non-medical college students, more research is needed in this area.

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