

Awareness and Knowledge of Sexually Transmitted Infections among Patients Attending Tertiary Care Hospital

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DOI: <https://doi.org/10.52403/ijhsr.20230732>

ABSTRACT

Background & Objective: Sexually transmitted infections (STIs) are the infections which are mainly transmitted through sexual intercourse and it is major public health problem and a leading cause of morbidity in developing countries. This study aimed to assess awareness and knowledge of Sexually Transmitted Infections among STIs patients attending Tertiary Care Centre.

Methods: A Hospital-based cross-sectional study design was conducted among 194 STIs patients from Tertiary Care Centre Varanasi between 15 to 60 years old during August 2022 to March 2023.

Results: Knowledge of only specific STIs (HIV/AIDS) was found highest 96.4% whereas lower percentages were noted for rest others STIs. Family/Parents were poor (8.8%) sources of information whereas Tv/radio were found primary source (78.9). Almost all of the respondent were aware about multiple partners can enhance risk of getting STIs and 43.3% were aware that only few STIs are curable.

Interpretation & conclusions: This study revealed that there was a low percentage of participants who were adequately aware of the common types, symptoms, and complications of STIs.

Keywords: Awareness, Knowledge, Sexually transmitted infections

INTRODUCTION

Sexually transmitted infections (STIs) are caused by bacteria, viruses, or protozoa and are transmitted mainly through unprotected sexual contact. Some STIs can also be transmitted during pregnancy, childbirth and breastfeeding and through infected blood or blood products [1]. The most prevalent STIs we interact with on a regular basis are gonorrhoea, chancroid, syphilis, and chlamydial infections, which can be treated, and the more serious ones include HIV, Genital herpes, HPV, and Hepatitis B

infection, which cannot be cured but may be modified with the help of currently available medications [2,3]. STIs are a significant global health issue, according to WHO (2022), with more than 340 million new infections occurring globally each year, the majority of which are asymptomatic in nature [4]. In both affluent and underdeveloped nations, STIs mostly affect youth, in order to lower the risk of sexual transmission and the prevalence of STIs, it is essential to get an adequate understanding of the symptoms, modes of transmission,

and methods of prevention [5]. Numerous earlier research has clarified the connection between the spread of STIs and mass urbanization and migration in light of the rising incidence of STIs in urban regions and megacities [6-8]. STIs have also been proven to have a significant impact on morbidity and death rates in underdeveloped nations, as well as a detrimental impact on reproductive health and the risk of HIV transmission through sexual contact [9]. Planning a preventive and treatment measures requires an understanding of STIs, their consequences, and the attitudes of the younger generation toward sexual health [10]. STIs cause severe consequences in the health of the affected population and are responsible for the development of various secondary diseases and complications, such as cervical cancer, infertility, pregnancy-associated complications including fetal mortality, increased risk for acquiring Human Immunodeficiency Virus (HIV), and reduced quality of life due to psychological and social factors [11-13]. Due to government initiatives and media campaigns, the majority of people are aware of HIV/AIDS, but in poor nations, awareness of STIs other than HIV/AIDS is low [14]. The variety of pathogens, asymptomatic or moderate infections that can make diagnosis challenging, and societal stigmatization of patients all contribute to the fact that STI care is currently limited [15].

Young people are more prone to engage in unprotected sex and engage in several sexual relationships. In addition, they may not have access to the required information and services to avoid STIs. Furthermore, they may feel hesitant to approach the facilities where information is available [16]. This study aimed to assess awareness and knowledge about STIs as well as the associated factors among STIs patients attending Tertiary care Centre.

MATERIALS & METHODS

Study Design, Area and Period

This is a hospital-based cross-sectional study, conducted from August 2022 to March 2023 among 194 STI patients attending Tertiary Care Centre at STI clinic of the Department of Dermatology & Venereology, Sir Sunderlal Hospital, Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh.

Data collection procedure

In this current study interview schedule was used as the tool of data collection. The questions in schedule tried to assess their awareness, and knowledge about types of STIs, symptoms of STI, complications of STIs, predisposing/causative factors, preventive measures to avoid STIs, and modes of transmission of STIs.

Sampling size and procedure

A systematic sampling method was used to select study participants. The following inclusion criteria were used: (i) written consent for participation in the study (ii) STI positive patients in age group of 15-60 years were taken. A single population proportion formula $N = Z_{1-\alpha/2}^2 P * (1 - P) / \epsilon^2$ used to estimate the sample size. From a previous study, awareness level among respondent was found 14% [13], and taking 95% confidence level (Z-score value: 1.96) and 5% precision level, the estimated minimum sample size was approximately 185 (Z= 1.96; P = 0.14; ϵ = 0.05). Adding 5% of the minimum sample size for the expected non-response rate, a final sample size of 194 was obtained.

Data processing and analysis

The collected data had been checked for its completeness, and then it was coded and entered into Excel and exported to the SPSS

Version 28 statistical software package for cleaning and analysis.

RESULT

A total 194 STI positive patients were enrolled in this study. Table 1 summarizes the Knowledge about various sexually transmitted infections of the study subjects. HIV/AIDS was known as an STI by 187 (96.4%) students. Ninety-eighty (50.5%) students knew Hepatitis B, 73 (37.5%) syphilis, 60 (30.9%), Genital Herpes, 53 (27.3%), Pelvic inflammatory disease, 42 (21.6%) gonorrhoea, as STI [Table1].

Table 1: Knowledge about various sexually transmitted diseases

Type of STI	Number (%)
HIV / AIDS	187 (96.4)
Hepatitis B	98 (50.5)
Syphilis	73 (37.5)
Genital Herpes	60 (30.9)
Pelvic inflammatory disease	53 (27.3)
Gonorrhoea	42 (21.6)

TV/Radio was good source of information about STIs 153 (78.9%) respondents followed by health workers 127 (65.5%), newspaper/magazines 126 (62.4%), text books 71 (36.6%), teachers 41 (21.1%), and family/parents were found poor sources of information 17 (8.8%) [Table 2].

Table 2: Source of information about Sexually Transmitted Infections

Sources of information	Number* (%)
TV /Radio	153 (78.9)
Health workers	127 (65.5)
Newspapers/Magazines	126 (64.9)
Internet	121 (62.4)
Text books	71 (36.6)
Teachers	41 (21.1)
Family/Parents	17 (8.8)

* There were multiple responses

The main modes of transmission of STIs known by respondents include sexual intercourse (186, 95.9%), blood transfusion (178, 91.8%), sharing infected needles (160, 82.5%), and mother to child transmission during childbirth (113, 58.2%). There was also misconception that STIs can be transmitted through sharing food (54, 27.8%) and mosquito bite (69, 35.6%) [Table 3].

Table 3: Modes of transmission and misconceptions about modes of transmission of sexually transmitted infections.

Modes of STI transmission	Number* (%)
Unprotected sexual intercourse	186(95.9)
Blood transfusion	178 (91.8)
Sharing needle	160 (82.5)
Mother to child	113 (58.2)
Sharing clothes/things	91 (46.9)
Mosquito bite	69 (35.6)
Sharing food	54 (27.8)

* There were multiple responses

Most commonly known symptoms of STI were itching on the genital area (66%), sores on sexual organs (64.4%), burning sensation on the genital area (40.7%) and least known STIs were failure to urinate (27.8%) followed by lower abdominal pain (28.9%), fluid-filled lesion on sexual organs (32%), discharge from a genital area (33.5%) and pain during intercourse (36.1%).

Table 4: Knowledge of respondents about symptoms of sexually transmitted infections.

Known STI symptoms	Number* (%)
Itching on genital area	128 (66)
Sores on sexual organs	125 (64.4)
Feeling of weakness	100(51.5)
Loss of Weight	80(41.2)
Burning sensation on the genital area	79 (40.7)
Pain during intercourse	70(36.1)
Discharge from a genital area	65 (33.5)
fluid-filled lesion on sexual organs	62 (32)
Lower abdominal pain	56 (28.9)
Failure to urinate	54 (27.8)

* There were multiple responses

Increasing the risk of HIV/AIDS (85.6%) was reported as the commonest complications of STIs followed by risk of other infectious conditions (71.6%), fertility problems (40.2), some kind of cancer (29.9) and stillbirth (25.8%).

Table 5: Knowledge about complications of sexually transmitted infections

Complications of STIs	Number* (%)
Risk of HIV/AIDS	116 (85.6)
Risk of other infectious conditions	139 (71.6)
Fertility problems	78 (40.2)
Some kind of cancer	58 (29.9)
Miscarriage	56 (28.9)
Stillbirth	50 (25.8)

* There were multiple responses

Almost all of the respondent were aware about multiple partners can enhance risk of getting STIs and sex with unknown without condom is irresponsible, more than half of

the respondent were aware about transmission of STIs from mother to baby during pregnancy.

Awareness related to STIs	Number (%)
Multiple partners enhance risk of STIs	160(82.4)
STIs Transmitted from Mother to baby	113(58.2)
STIs lead to infertility	79(40.7)
All STIs are Curable	9(4.6)
Condom not fully protect against spread of HIV	66(34.0)
Sex with unknown without condom is irresponsible	187(96.4)
Abstinence is the only way to prevent STIs	60(30.9)
STIs impossible from oral sex	29(14.9)
STIs can have without any visible signs ang symptoms	105(54.1)
People give STIs to others only when they have symptoms	117(60.3)

DISCUSSION

STIs are responsible for causing various health, social, and economic problems world-wide. The majority of the affected subjects are young individuals, and this trend seems to be associated with their reduced knowledge and their lack of appropriate education on STD infection and prevention [18]. The main objective of the study was to assess the awareness and knowledge of Sexually Transmitted Infections among patients attending Tertiary Care Hospital. According to our study, the majority of students were familiar with STIs, but they knew mostly about HIV/AIDS. In contrast to HIV/AIDS, however, other STIs such as Gonorrhoea, Syphilis, Chlamydia, and HPV were considerably less known, different from what was obtained in this study and also from one study to another.

The findings of this study demonstrate that, despite the enormous attention given to HIV/AIDS, other STIs with serious consequences that also increase a person's risk of contracting HIV/AIDS have received less attention and these STIs must also be brought to public attention, which is essential. Only 21.6% and 27.3% of respondents knew about STIs such as Gonorrhoea and Pelvic inflammatory disease, respectively. The findings of this study are similar to those of a study done in Karnataka by Subbarao and Akhilesh

entitled "Knowledge and Attitude About Sexually Transmitted Infections"[19]. The electronic media (TV/radio) are the primary source of information because most people have access to transistor radios or mobile phone sets with built-in radios, which provide them with constant access to the news. Most of the participants in our study had known about these infections through health worker, teachers, internet, and newspapers/magazines.

Information provided in internet and newspaper/magazines might not be complete and also mislead the student as not all content on internet is scrutinized by qualified health professional. Although many of the respondents were aware of STIs, they lacked in-depth understanding regarding these infections and their presentations. Amu & Adegun's study among teenagers in secondary school produced findings that are comparable to this [20].

The majority of the respondents were aware that STIs might be spread through unprotected sexual contact, blood transfusion, sharing needles, and mother-to-child transmission during pregnancy; this is in line with the findings of several previous studies performed both inside and outside the nation [21]. There were misconceptions about routes of transmission as well. The respondents felt that STIs can be transmitted through sharing clothes/things 46.9%, by mosquito bite 35.6%, and by sharing food 27.8%. This survey was comparable to one that was done among university students in Thailand, although our findings are considerably greater than those of the Thai students, among whom 8.7% believed that sharing clothing or other items constituted a means of STIS transmission [22]. Misperceptions regarding the transmission of STIs reduce the desire for individuals to engage in safer sexual practices and amplify stigma against them, which could discourage them from seeking medical care. In this study, the three most commonly mentioned symptoms of STI were itching on genital area, sores on sexual organs, and

feeling of weakness. In contrast, among Thai students, penile/vaginal discharge and genital itching were the most often described STI symptoms. Additionally, it also differs with a study of young people in North Central Nigeria that found that the most widely recognized signs of STIs were rash, painful urine, and painful intercourse [23]. Risk of HIV/AIDS and risk of other infectious conditions was reported as main complications of STIs.

CONCLUSION

The findings of our study show that it is important to orient the respondents about sexual health and safe sexual practices as it will go a long way in prevention and control of STIs. Furthermore, the morbidities and complications associated with STIs can be prevented. This study concluded that awareness and knowledge of respondents are not much satisfactory and lack of in-depth knowledge about these diseases, their symptoms, modes of transmission and complications of STIs.

Declaration by Authors

Ethical Approval: Ethical clearance was obtained from Institutional Ethics committee (IEC) of Banaras Hindu University and the relevant approval number was obtained (Dean/2022/EC/3420 dt. on 20/08/2022).

Acknowledgement: We acknowledge the help and support provided by my supervisor Prof. T.B. Singh sir, and co-supervisor Prof. S.K. Singh sir in the conduct of the study and preparation of the manuscript.

Source of Funding: None

Conflict of Interest: The authors declare no conflict of interest.

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How to cite this article: Prince Kumar Patel, Prof. T.B. Singh, Prof. Satyendra Kumar Singh et.al. Awareness and knowledge of sexually transmitted infections among patients attending tertiary care hospital. *Int J Health Sci Res*. 2023; 13(7):222-227. DOI: <https://doi.org/10.52403/ijhsr.20230732>
