# **Original Research Article**

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# Knowledge and attitude about sexually transmitted infections among women in reproductive age group residing in the urban slums

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#### **ABSTRACT**

Background: Sexually transmitted diseases (STDs) are group of disease primarily affecting sexually active population and has lead to a major public health problem in the reproductive age group (15-45 years), which are largely acquired through sexual act or close contact with genitals leading to potentially devastating effects. Aims and Objectives: To assess the knowledge and attitude towards STDs among women of reproductive age group residing in urban slums and also to provide an insight to the reproductive and sexual health needs through health education

Methods: It is a community based cross sectional study and was conducted in the urban slums attached to a tertiary care hospital. House to house survey was done and women of reproductive age group residing in urban slums were selected and data was collected using predesigned and pretested proforma.

Results: A total of 180 women were enrolled, of which 87.78% opined blood transfusion as major mode of transmission and 86.11% as unprotected sexual intercourse. 32.78% women told that fever is the commonest symptom, followed by menstrual irregularities (38.89%). 72.78% told that STDs can be diagnosed by blood examination. 32.78% opined that STDs can be prevented by using condoms and 27.22% told by giving sex education. 68.89% were willing to get screened for STDs. Overall literates were more aware about STDs compared to illiterates (p < 0.001)

Conclusions: Information, Education and Communication (IEC) activities should be promoted, so that it reaches the mass at a negligible cost.

**Keywords:** Awareness, Attitude, Reproductive age women, Slums, STDs, Urban

#### INTRODUCTION

Reproductive ill health constitutes one-third of all health related illnesses among women of reproductive age group in developing countries and one-fifth of all global health related illnesses. Sexually transmitted diseases (STDs) have long been recognized as a major public health problem all over the world contributing to 8.9 percent of diseases among women.<sup>1</sup> World Health Organization (WHO) estimated that approximately 340 million new cases of the four main curable sexually transmitted infections (gonorrhoea, chlamydial infection, syphilis and trichomoniasis) occur every year with more than 6,85,000 people getting infected every day and among these 75-85 per cent occur in developing countries.<sup>2</sup> In developing countries STDs are ranked among the top five diseases for which adults seek health care services.3 Women, especially of reproductive age group are physically,

mentally and socially more vulnerable to reproductive tract infections (RTIs) and sexually transmitted diseases (STDs). There are at least 25 RTIs/STDs with a range of different symptoms and these diseases spread through vaginal, anal and oral sex.2 Women suffering from STDs are more likely to be asymptomatic or present with minimal symptoms of infection leading to delay in seeking healthcare and Reproductive Tract Infections (RTIs) will be left untreated which can lead to fetal wastage (10-15%), low birth weight, prenatal infections (30-50%) as well as congenital infections and also STDs, which increases the risk of HIV by ten folds. [1] As most STDs occur symptom free and can thus be passed on unaware during unprotected sexual intercourse and at individual level will lead to complications like pelvic inflammatory diseases and possibly leading to ectopic pregnancies and infertility.<sup>3</sup>

The consequences of RTIs/STDs are numerous and potentially devastating. These include post-abortal and puerperal sepsis, ectopic pregnancy, fetal and perinatal death, cervical cancer, cirrhosis, hepato-cellular cancer, infertility, chronic physical pain, emotional distress as well as social rejection and some women also suffer from reproductive morbidities for a long time because of prevailing culture of silence. In addition to health effects, STDs carry great social and economic consequences particularly for women. 4.5 Social consequences include stigmatization, domestic abuse and even abandonment. 6

In low-income countries, STI often go undiagnosed and untreated due to lack of knowledge and/or non-availability of healthcare facilities. Little emphasis on educational and other efforts to prevent infection occurring in the first place and the insufficient integration of HIV/AIDS and family planning into one program are common reasons why STI control programmes often fail in low-income countries and also because of social taboos surrounding reproductive and sexual health, many young married women are too embarrassed to voice their needs and instead forgo health services. 6-8

An expression of the unmet needs is the low level of knowledge and many appalling misconceptions about STIs and their treatment have led STIs to be the silent killers among the women population. Before formulating public health policies for the prevention, it is critical to obtain information about the prevalent knowledge, attitude and practice regarding HIV/AIDS, other STDs and sexuality among the target population. Thus this study was done with the objective to know the knowledge and attitude about STIs among the women of reproductive age group in urban slums and create awareness among them.

### **METHODS**

A community based cross-sectional study was conducted among women in the reproductive age group of 15-45 years living in urban slums attached to the tertiary care hospital, Dharwad. People living in urban slums have more chances of getting exposed to such infectious diseases because of urbanization and industrialization.

# Pre-study survey

Prior to the study, a pilot study was conducted involving 30 women in 15-45 years age group over a period of one month to assess the feasibility of pre designed proforma. The tested proforma was then utilized in the present study after satisfactory reformations were made in it.

#### Present study

After the pre-study survey, present study was conducted for a period of two months. House-to-house survey was done by using convenient and systematic random sampling (every 5th house considered). Data was collected by interviewing women in the age group of 15-45 years (only one women was selected from each house - considered to be as representative of the family) by using the tested proforma after signing a written consent form on voluntary basis along with the consent of the parents and confidentiality was assured before the data collection was initiated.

Relevant information was recorded in the pre-designed and pre-tested proforma covering knowledge regarding modes of transmission, clinical features, laboratory diagnosis and preventive aspects regarding RTIs/STDs were noted. At the end of the interview, health education was delivered by providing important information related to STDs. Descriptive statistics was applied and data was analyzed by using simple proportions and percentages. Chi square was used to find association between variables and was considered statistically significant when p value was <0.05.

# **RESULTS**

A total of 180 women belonging to 15 to 45 years of age were interviewed. Among the total 180 women interviewed, majority 72 (40%) were in the age group of 25-34 years, while 15-24 years contributed to least with only 50 (27.78%). Majority of the women 68 (37.78%) had completed primary education as compared to only 9 (5%) graduates. The socio-demographic characteristics of the study participants are given in Table 1.

Among the various modes of transmission, 158 (87.78%) women opined that blood transfusion was the most common mode of contracting STDs, followed by sexual intercourse by 155 (86.11%) of the participants. Only 95 (52.78%) women thought that infections could also spread from mother to child. When asked about the symptoms, 75 (41.67%) were aware of vaginal discharge as the most common symptom, followed by 70 (38.89%) menstrual irregularity and 59 (32.78%) fever were other common symptoms cited by the participants. When enquired about the diagnosis, 131 (72.78%) women were

aware that diagnosis can be done by blood examination as compared to 97 (53.89%) participants, who thought that urine could also be a source to diagnose the disease in an individual. Knowledge regarding mode of transmission, symptoms and diagnosis of STD has been discussed in Table 2.

Among the 180 women, 19 (10.55%) thought that STDs could not be prevented, while 28 (15.56%) did not know that it can be prevented. 100 (55.56%) women opined that abstinence from sex and 59 (32.78%) with usage of condoms thought to be the most common method of preventing the disease. 49 (27.22%) of the women also opined that by giving sex education disease can be prevented. Knowledge regarding various methods of prevention of STD among the study participants is discussed in Table 3.

The level of literacy played a significant role (p<0.001) in understanding and awareness regarding the various modes of transmission of the disease, with literates being satisfactorily informed as compared to illiterates. Even though knowledge regarding prevention of STDs in literates was better compared to illiterates (p<0.001), it can be still improved to ensure lesser prevalence in future. Comparison of literacy status with various modes of transmission is explained in Table 4.

Table 1: Socio-demographic characteristics of study participants.

Socio-demographic characteristics	Number	Percentage
Age group in years		
15-24	50	27.78
25-34	72	40.00
35-45	58	32.22
Religion		
Hindu	139	77.22
Muslim	41	22.78
Educational status		
Illiterate	26	14.44
Primary	68	37.78
Secondary	41	22.78
Per university	36	20.00
Graduate	9	5.00
Socio economic status	ł	
Class I	44	24.44
Class II	95	52.78
Class III	32	17.78
Class IV	8	4.44
Class V	1	0.56
Type of family		
Nuclear	64	35.56
Joint	51	28.33
Three generation	65	36.11

Table 2:Knowledge regarding mode of transmission, clinical features, lab diagnosis and complications of STDs.

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Mode of transfusion*	Number	Percentage
Blood transfusion	158	87.78
Unprotected sex	155	86.11
Needle prick	120	66.67
Mother to child	95	52.78
Staying, eating together	25	13.89
Clinical features*		
Fever	59	32.78
Genital and mouth ulcers	41	22.78
Vaginal discharge	75	41.67
Menstrual irregularity	70	38.89
Burning micturation	25	13.89
Tuberculosis	4	2.22
Don't know	66	36.67
Lab diagnosis*		
Blood	131	72.78
Urine	97	53.89
Don't know	48	26.67
Complications*		
Stillbirth / miscarriage	75	41.67
Infertility	40	22.22
Death	32	17.78
Cervical cancer	9	5.00
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<sup>\*</sup>Multiple answers.

Table 3: Knowledge regarding prevention of STDs and National programs.

Prevention*	Number	Percentage
Abstinence from sex	100	55.56
Condoms	59	32.78
Sex education	49	27.22
Careful use of injection	36	20.00
Don't know	28	15.56
Cannot be prevented	19	10.55
Any national program	NII	D
towards control of disease	Number	Percentage
Yes	108	60.00
No	25	13.89
Don't know	47	26.11

<sup>\*</sup>Multiple answers

When questioned about opinion towards STDs patients, 50 (27.78%) told that they should avoid people suffering with STDs and 168 (93.33%) opined that both the partners are equally responsible and 124 (68.89%) told that women should be screened or get tested for STDs and is explained in Table 5.

Table 4: Knowledge regarding mode of transmission and prevention of STDs among literates and illiterates.

Categories	Illiterate (n=26)		Literate (n=154)		p value
Mode of transmission	No.	%	No.	%	< 0.0001
Blood transfusion	18	69.23	140	90.91	
Unprotected sex	22	84.62	133	86.36	
Needle prick	15	57.69	105	68.18	
Mother to child	11	42.31	84	54.54	
Staying, eating together	16	61.54	9	5.84	
Prevention	No.	%	No.	%	< 0.001
Abstinence from sex	14	53.85	86	55.84	
Condom	6	23.08	53	34.41	
Sex education	6	23.08	43	27.92	
Careful use of injection	5	19.23	31	20.13	
Don't know	15	57.69	13	8.44	
Cannot be prevented	11	42.31	8	5.19	

Table 5: Attitude of the women towards STDs.

Avoid people with STD	Number	Percentage		
Yes	50	27.78		
No	113	62.78		
Don't know	17	9.44		
Both partners responsible for prevention				
Yes	168	93.33		
No	12	6.67		
Ready to get tested for any STIs				
Yes	124	68.89		
No	56	31.11		
Awareness should be given in school				
Yes	154	85.50		
No	26	14.50		

#### **DISCUSSION**

STD transmission in India still remains locally intense and possesses the potential of leading to a major public health problem. The present study aspired to assess the knowledge and attitude of women towards STDs, with an effort to generate awareness about the spread of disease, symptoms, modes of prevention, diagnosis and availability of healthcare facilities at various hospitals.

The present study highlights that the knowledge of the participants regarding the disease, its modes of transmission, symptoms of the disease, its diagnosis and prevention was average, providing a window of opportunity for Information, Education and Communication (IEC) activities to be implemented.

In the present study, 91% of them were aware of HIV/AIDs when compared to the study done in Allahabad where only 76.5% were aware of HIV/AIDs. In another study done in Sweden 88% and a study done in Germany [12] 98.94% were aware of HIV/AIDS. 11

In the present study only 42% had heard about other STDs like PID and cervicitis. While in Allahabad study 72.9% were aware of STIs and in the study done in Uttar Pradesh 80.32% were aware of STIs. <sup>1,13</sup> In study done in Germany 90.61% knew about Herpes, 83.52% about Hepatitis B and only 13.37% about HPV infection. <sup>12</sup>

In a study done in Khartoum 72.1% of the respondents knew that HIV could be transmitted by heterosexual contact, 38.1% by blood transfusion, 3.5% during pregnancy, 47% by using skin piercing instruments and 15.6% thought by sharing meal.<sup>3</sup> The knowledge about mode of transmission was low compared to the present study where 87.78% knew that blood transfusion in one of the mode of transfusion of HIV, 86.11% told unprotected sex, 66.67% by needle prick injury, 52.78% told mother to child and only 13.89% told by staying and eating together. This might be because of the high level of awareness about HIV in the present study. In another study done in Turkey, unprotected sexual intercourse was recognized as the most frequent mode of infection transmission (92.67%), followed by blood transmission (72.10%), oral sex (39.72%), kissing (28.13%), and protected sexual intercourse (8.51%).14 In a study done in Mecklenburg 99% knew that HIV was sexually transmitted and 91% by needle prick.15

In the present study 32.78% of the participants told the clinical features of STIs as fever, 41.675% told vaginal discharge and 13.89% told burning micturation. While in a study done in Khartoum state only 14.9% of the positive respondents told fever as the presentation in STIs and 23.7% told loss of weight.<sup>3</sup>

In the present study 33.3% women told that STDs can be prevented by using condoms, 20% by careful use of injections which was similar to a study done in Jammu where use of condoms and sterile needles was proposed by 20% and avoidance of addiction by 50% as preventive measure. A study done in Khartoum state showed that 87.5% of the positive respondents has no knowledge of protection by using male condom, 62.5% of the positive ones had acknowledge that they can took protection by avoiding unprotected sex. 3

The main source of information in our study was television (51.6%) which was similar to the Allahabad

study (50.2%).<sup>1</sup> But in a study done in Uttar Pradesh 90.36% told that the source of information was television.<sup>13</sup>

#### **CONCLUSION**

Very few people know about the STIs other than HIV. About 26.67% of the people didn't know the ways of diagnosing STIs. Only 32.78% people know that use of condoms can prevent STIs and 20% told by careful use of injections. Many didn't know the complications associated with STIs. The main source of their information was television and friends. Only 20% told they got information from medical personal. Knowledge regarding the national programs was inadequate.

Recommendations: Awareness/ knowledge should be increased. The health workers should be given the addition responsibility of educating the general population. Knowledge regarding facilities available should be given so that they make good use of them.

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