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# **Original Research Article**

# A study of health seeking behavior about sexually transmitted infection in women with high risk behavior in an urban slum

# Sneha Parve<sup>1</sup>, Shrikala Acharya<sup>1</sup>, Pratik Chide<sup>2</sup>\*

<sup>1</sup>Department of Community Medicine, Seth G S college and KEM Hospital, Mumbai, Maharashtra, India

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# \*Correspondence:

Dr. Pratik Chide. E-mail: snehaparve@gmail.com

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#### **ABSTRACT**

Background: Health care seeking for sexually transmitted infection is frequently inadequate, particularly among female sex workers because of the low levels of awareness regarding sexual health. Correct diagnosis and treatment with health information are essential components of sexually transmitted infection (STI) services. Objective was to study demographic profile and to assess their health seeking behavior for STI and prevention services.

Methods: Study was done in urban slum in Mumbai. It was cross sectional study conducted from May 2018 to

Results: The median age of women was 26 years. Majority belong to lower socio economic class, 39.4% women admitted that they took alcohol on occasions while 22% had sex with alcohol intake, 41% women were using condom during sexual activity. Only 14.5% women completed treatment who had past history of STI.

Conclusions: Ensuring timely complete treatment of STI/RTI among women with high risk behavior is priority to prevent spread among general population.

Keywords: Condom usage, Female sex workers, Sexually transmitted infection

### INTRODUCTION

Sexually transmitted infections (STI) are among the most common causes of illness in the world and have far reaching health, social and economic consequences. STDs have a profound impact on sexual and reproductive health worldwide. It is ranked as 5th among top 5 disease categories for which adult seek health care.1

Female sex workers (FSW) are considered a high-risk group for acquisition of sexually transmitted infection (STI), due to their social vulnerability and factors associated with their work like a history of multiple sex partners, inconsistent condom use or co-infection with other STI. FSW remain a high-risk group for STI transmission to their numerous clients. There is a potential for some of these clients to act as a bridging population for further spread of STI into the general population. Because FSW are at high- risk for STI acquisition and transmission, they are one of the target groups for free STI care at specialized STI clinics.<sup>2</sup>

Current approaches to STI epidemiology recognize three distinct components of transmission dynamics at the population level as follows -a) likelihood of sexual exposure between infected and uninfected individuals b) transmissibility of infection upon exposure between an infected and an uninfected person and c) duration of infection among those infected. The first, of these components is entirely behavioral, and behavior plays an

<sup>&</sup>lt;sup>2</sup>Department of Pathology, Grant Government Medical College, Mumbai, Maharashtra, India

important role in the last two approaches for example, condom use, sexual practices, and health care—seeking behavior.<sup>3</sup> Health care seeking for STIs is frequently inadequate, particularly among women because of the low levels of awareness regarding sexual health, the stigmatization associated with genital symptoms, and the asymptomatic nature of many STIs. Despite the nature of the problem, the studies in India on the treatment seeking behavior in STI/RTI clients are scarce.

One of the study conducted in Delhi North India found that in India women are reluctant to seek medical treatment because of lack of privacy, lack of female doctors at health facility, the cost of treatment and their sub-ordinate social status, fear of internal check up.<sup>4,5</sup> District Level Household Survey-3 reported that only 40% of the diagnosed STI/RTI cases took treatment.<sup>4</sup>

STDs among women, though highly prevalent are suppressed because of social stigma attached to the disease. It has, therefore, being decided to integrate services for treatment of reproductive tract infections (RTIs) and sexually transmitted diseases (STDs) at all level of health care. Society considers sex work unethical. As a result, individuals engaged in sex work feel alienated and do not come forward to seek health care services. Very few data is available on their various attribute as many of them do not openly acknowledge that they are sex workers.

The present study was undertaken in the field practice area in the women with high risk behavior in an urban slum to assess their socio demographic profile and identify their health seeking behavior. The study will also assess their utilization of HIV preventive services including condom use.

#### **METHODS**

It is a cross sectional study, conducted in urban slum in Mumbai for the duration of seven months from May 2018 to Dec 2018 which has urban health centre attached to teaching hospital and medical college. The community has significant population of individuals with high risk behavior viz Female sex workers. They are registered under local Community Based Organization (CBO) contracted by Mumbai District AIDS Control Society (MDACS).

The CBO has 1000 women registered for targeted intervention each with specific UID number. Meeting were held with outreach and peer educator explaining objective of study with assurance of maintaining confidentiality. To select required number of study participants a list of registered women was shared with peer educators. Women were contacted at their residence. Due to frequent change in their residence many could not be traced.

Due to difficulty in reaching out to them and unwillingness to participate in study because of fear of getting exposed it was decided to take 15% representative

sample of population taking 35% as prevalence of STI in previous studies which comes to be 240.

#### Sampling technique

Many of bar girls were not willing to participate in the study. In spite of repeated attempts many women could not be contacted at home. The women who were present at their homes, were informed by outreach worker regarding the study and invited to visit Urban Health Center as per their convenience. Those who came to UHTC, were explained the details of study and importance of STIRTI and the process of the study. If they were convinced, written consent was taken. Some women disagreed from participation due to fear of needle prick (8) and few women refused to undergo internal examination (6). Women who participated in interview & agreed for internal examination (n=200) were included for study; however 5 women having menses could not be examined internally (n=195).

#### Data collection

Before data collection a detail workout of study was discussed with in-charge of CBO in urban slum. Informal meeting was conducted among bar girls to explain objective of study and assurance about confidentiality was given. Data was collected by one to one interview method by using pre-tested questionnaire. Information was gathered regarding demographic profile, educational status, marital status and health seeking behavior of bar girls. Data was compiled, tabulated and analyzed using chi square test and logistic regression method.

#### **RESULTS**

The median age of women was 26 years. 41.6% women were unable to read and write while 74.3% were currently married. Majority belong to lower socio economic class. 41.4% were having relationship both with spouse and client both.

Statistically 52.3% women were in the age group of 25-34 years. 41.6% women were illiterate. Very few 11.8% women had studied beyond 8th standard. 74.3% women were currently married. 59% had per capita income of Rs.979-1958 while 30.0% women had per capita income of Rs.1959- 3263 (Table 1), 41% women reported use of condom during sexual activity while 59% women were not using condom.

Among the women not using condom, 58.2% women did not use with regular or known client (Table 2). Among the women not using condom, 67 (58.2%) women did not use with regular or known client, 25(21.8%) women cited the reason of more money offered by the client, 15 (13.1%) women did not use condom due to refusal from clients. Only 7(6%) women cited unavailability of condom as the reason.

Data wise 39.4% women admitted that they took alcohol on occasions. Among these, 22% women had sex under the influence of alcohol (Table 3). 35.6% women in the age group of 18-24 yrs, were using condom during sexual activity and 37.5% women in the age group of 25-34 yrs were using it.

Table 1: Socio-demographic characteristics of women.

Age in years	Number	Percentage
18-24	46	23.1%
25-34	101	52.3%
35-44	36	19%
45-55	12	5.6%
<b>Education status</b>		
Illiterate	81	41.6%
1-4th standard	28	14.3%
5th -7th standard	63	32.3%
8-10th standard	21	10.8%
Above 10th standard	02	1.0%
Marital status		
Unmarried	15	7.7%
Currently married	145	74.3%
Widowed	11	5.8%
Divorced/ separated	12	6.1%
Live-in relationship	12	6.1%
Per capita income		
More than Rs.6528	6	3%
Rs 3264-6527	15	8%
Rs 1959-3263	58	30.0%
Rs 979-1958	116	59.0%
Less than Rs 978	0	0
Total	195	100%

Table 2: Usage of condom and reasons for not using.

Usage of condom	Number	Percentage			
Yes	80	41%			
No	115	59%			
Total	195	100			
Reasons for not using condom					
Known/regular client	67	58.2%			
Receiving more money	25	21.8%			
Refusal of client	15	13.1%			
Condom Not available	7	6%			
Costly	1	0.9%			
Total	115	100			

Table 3: Distribution of women as per substance use and sexual activity under its influence.

Substanc	e use	Number	Percentage	
Alcohol —		77	39.4%	
		118	60.6%	
Sex under influence of alcohol				
Yes		17	22%	
No	No 6		78%	
Total		77	100	

Condom usage was highest 57.1% in age group of 35-44 yrs. The association between age group and use of condom was highly significant.

Among illiterate women, 40.8% were using condom during sexual activity. Among women who had studied till 4th standard, 42.9% women were using condom.

Table 4: Association between socioeconomic factors and usage of condom.

Age group in years	Usage of condom		T-4-1	,
	Yes	No	Total	p value
18-24	16(35.6%)	30(64.5%)	46(23.5%)	
25-34	36 (37.5%)	65(62.5%)	101(51.8%)	Chi sq. value:
35-44	24 (57.1%)	12(42.8%)	36(18.4%)	10.26, df: 1,
45-55	4 (33.3%)	8(66.7%)	12(6.15%)	p=0.00067
	80(41%)	115(58%)	195	
Educational status	Yes	No		
Illiterate	33(40.8%)	48(59.2%)	81 (41.5%)	
1-4 <sup>th</sup> standard	12(42.9%)	16 (57.1%)	28(14.3%)	Chi Sq. value
5-7 <sup>th</sup> standard	26 (41.2%)	37 (58.8%)	63 (32.3%)	0.0112 p= 0.4578 df =1
	7 (33.3%)	14 (66.7%)	21 (10.8%)	
	02 (100%)	0	2 (1%)	
Per capita income				
More than Rs.6528	04(66.7%)	02 (33.3%)	06(3%)	Chi: 2.35 df:1
Rs 3264-6527	08 (53.3%)	07(46.7%)	15(8%)	
Rs 1959-3263	25(43.1%)	33(56.9%)	58(30%)	p=0.06
Rs 979-1958	43(37%)	73(63%)	116 (59%)	

Table 5: Association of condom use by women and discharge on examination.

Condom use during ser	Discharge on examination		= Total		
Condom use during sex	Yes	No	Total		
Yes	75 (93.8%)	5 (6.25%)	80(41%)	Chi sq value: 25.55, df:1, p<0.001	
No	60(52.1%)	55(47.9%)	115(59%)		
Total	135(69.2)	60(30.8)	195		

Table 6: Distribution of women according to health seeking behavior for symptomatic discharge.

Status of treatment	Past history		Total	
	Yes	No		
Complete treatment	14 (14.5%)	23 (23.5%)	37(19%)	Chi: 10.32, df:2, p
Incomplete treatment	40(41.2%)	20(20.4%)	60 (30.8%)	< 0.001
No treatment	43(44.3%)	55(56.1%)	98(50.2%)	
Total	97 (49.8%)	98(50.2%)	195	

The association between educational status of women and their usage of condom was not significant Women having per capita income more than Rs. 6528, 66.7 % were using condom during sexual activity while women with per capita income Rs 3264-6527, 53.3% women were using condom. Comparatively lower proportion i.e 43.1% and 37% of women were using condom with per capita income of Rs 1959-3263 and Rs 979-1958 respectively. The association between socio-economic scale and usage of condom was found to be significant (Table 4).

Statistically 93.8% had vaginal discharge to those women who were using condom. The association between condom use during sex and vaginal discharge is highly significant (p<0.001) (Table 5).

Among women who had previous episodes of vaginal discharge, 14.5% women completed treatment, 41.2% women had taken incomplete treatment, while 44.3% had not taken any treatment. The association between treatment history and past episode is highly significant (Table 6).

### **DISCUSSION**

It was found that 41% women reported use of condom during sexual activity, 59% women were not using condom (p value: A study conducted by Nirgude A et al. among bar girls in Mumbai found that the frequency of condom use varied considerably from 46.60% during commercial sexual act (always), and 53.4% often ( $\chi$ 2 = 6.02, df = 1, p <0.02).<sup>6</sup> A study conducted by Musie Ghebremicha et al Harvard, Cambridge, USA found 77% had not used a condom in the prior 12 months. While another study Das Prabhakar et al, at Hyderabad and Mumbai among female sex workers has contrasting report of 82.7% said that they had used condoms at their last commercial sexual encounter, 70.1% claimed to be consistently using condoms with commercial partner.8 Another contrasting results were in study conducted by Brahme R et al, at Pune, India among Female Sex workers reported that the proportion of FSWs who refused sexual contact without condoms increased over time (p<0.001).

Statistically 58.2% among non-users women did not use with regular or known client while 21.8% women cited the reason of more money offered by the client, 13.1% reason were refusal from clients, 6% women cited unavailability of condom as the reason. A study by M Gone et al, at Papua New Guinea among Female Sex Workers stated that common reasons cited were dislike by clients, unavailability, alcohol use, and familiarity with a client. A study by Zachariah et al, at Malawi sexual behavior among commercial sex workers. The reasons for not using condoms included client pressure, regular partner, having no knowledge about the usefulness of condoms, unavailability and reduction of pleasure, 41% use condoms intermittently due to client pressure.

Around 39.4% women admitted took alcohol on occasions while 22% women had sex under the influence of alcohol. A study by Hassan et al, on Drug Use and High-Risk Sexual Behaviors found methamphetamine and alcohol was used only in 13%.12 Majority of women, 57.1% of age 35-44 years used condom while 33.3% women with age group more than 45 years used it which means lesser age were at more risk of getting infection. The association between age group and usage of condom is highly significant among women. A study by Maud M. A. Verscheijden et al, on Sexually transmitted infections among female sex workers also had similar findings that younger age, appeared to be a risk factor for STI acquisition. Women having higher per capita income were more frequently using condom while those with lower per capita income had less usage of condom.<sup>13</sup> A study by Choi Sussane et al, found that compared with other sex workers, street sexual workers having low socioeconomic profiles are less likely to use condoms with their clients. Major barriers to condom use are linked to economic deprivation.<sup>14</sup> It was found that 80 women using condom, 93.8% had vaginal discharge, 52.1% not using condom, had vaginal discharge. The association between condom use during sex and vaginal discharge is highly significant (p<0.001).

Only 14.5% women completed treatment among those who had previous episodes of vaginal discharge while majority of women 43% had not taken any treatment, 41.2% women had taken incomplete treatment. The association between treatment history and past episode is highly significant. A study by Zachariah et al, found that 32% patients diagnosed with an STI had received some form of medication before presenting at the mobile STI clinic. A study by M Gone et al at Papua New Guinea among Female Sex Workers Despite a high rate of symptoms, the rate of treatment-seeking was low. A study was conducted by Zachariah et al, at Malawi on Sexually transmitted infections and sexual behaviour among commercial sex workers. The median reported time with STI symptoms was six days (range one day to two years). 11

#### **CONCLUSION**

Female Sex Workers remain a high-risk group for STI transmission to their numerous clients. There is a potential for some of these clients to act as a bridging population for further spread of STI into the general population. To prevent further spread, complete treatment and regular checkup is the need of the hour. Continuous training for STI service providers focusing on counseling skills and awareness of the sexual health care needs for FSWs is recommended.

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Institutional Ethics Committee

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