### **Original Research Article**

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# Awareness of sexually transmitted infections and cervical cancer among women in urban slums of Mumbai, Maharashtra, India

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#### **ABSTRACT**

**Background:** Cervical cancer is one of the most common cancers among women. Due to this disease 80 percent die at an advance stage. This may be due to lack of awareness and knowledge, lack of access to proper treatment including screening facility. This study is undertaken with an objective to investigate knowledge attitude, practice and health seeking behaviour about sexually transmitted infections (STIs) and cervical cancer among eligible women in a slum community in Mumbai.

**Methods:** Baseline data of women was drawn from an intervention study entitled "Enhancing knowledge and promoting health seeking behaviour of couples on sexually transmitted infections and cervical cancer in urban slums of Mumbai" for this article. This data was collected from a random sample of 1958 women in reproductive age group through a semi-structured interview schedule from two urban slums of Mumbai. Information was collected on socioeconomic and demographic characters, awareness and symptoms of STIs and cervical cancer, and health seeking behaviour.

**Results:** The study revealed that majority of women had heard about the STIs, 37.7 percent were aware of cervical cancer whereas only 3.6 percent of women were aware of Pap smear test. About 11 percent of women experienced at least one symptom of STI, 0.3 percent of women reported of having sexual partner other than spouse. Most women were not aware of STIs symptoms specific to men.

**Conclusions:** Study concludes that the need to disseminate knowledge regarding STI symptoms, cervical cancer and Pap smear test for early detection of cervical cancer as well as promoting better health seeking behaviour with respect to cervical cancer and STIs. Considering of sensitivity of the topic it is necessary to design separate programmes for women.

Keywords: Awareness, Cervical cancer, Pap smear test, STIs, Urban slums

#### INTRODUCTION

Cervical cancer is one of the most common cancer among women.<sup>1</sup> Globally, with an estimated about 5,30,000 women develop cervical cancer every year and more than 2,70,000 women die due to this disease.<sup>2</sup> Most of these

deaths are in low- and middle-income countries.<sup>3</sup> Current estimates indicates 1,22,844 new cases and 67,477 deaths annually due to cervical cancer in India.<sup>4</sup> This may be due to lack of awareness and knowledge, lack of access to proper treatment including screening facility. Successful treatment depends on early diagnosis of cervical cancer.<sup>5</sup> Pap smear screening for the early detection of pre-

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cancerous lesions is cost-effective and well-established technique currently available and used all globally. It also has additional benefit in detection of some the common sexually transmitted infections in single smear.<sup>6</sup>

Pap smear test is used to detect cervical cancer at early stage. It has resulted in a significant reduction in the mortality due to cervical cancer. Women are less likely to be screened when they do not understand the importance of recommendations.<sup>7</sup> Cervical cancer is often linked with sexually transmitted infections and sexual relationship outside marriage. However, Saslow and his collogues observed that 50 percent of women diagnosed with cervical cancer have never undergone a Pap test.8 Studies conducted in India suggest; lack of access to proper treatment including screening facility, lack of awareness of the benefits of the screening test, considering oneself not at risk, fear of getting diagnosed as cancer and embarrassment are some of the reasons for seeking health care in advanced stage of cervical cancer in India.<sup>9,10</sup> In this regard, the current paper tries to investigate the knowledge attitude, practice and health seeking behaviour about Sexually Transmitted Infections (STIs) and cervical cancer among eligible women in a slum community in Mumbai.

#### **METHODS**

Baseline data of women was drawn from an intervention study entitled "Enhancing knowledge and promoting health seeking behaviour of couples on sexually transmitted infections and cervical cancer in urban slums of Mumbai" for this article. Two maternity homes, Savitribai Phule Maternity Home, Bhandup and Dr. Babasaheb Ambedkar Maternity home, Vikhroli, of Municipal Corporation of Greater Mumbai (MCGM) were selected for the above study. Simple random Sampling was used to select married women aged 18 to 49 years and currently cohabiting with husband. A total of 1958 eligible women were interviewed face-to-face, using semi-structured interview schedule by female social workers during October 2010 to February 2011. Data was collected on socio-economic and demographic information, awareness of cervical cancer and STIs, experience of symptoms, and sexual and reproductive health seeking behaviour. Descriptive statistics and cross tabulation was used to analyses data. Chi-square test was used to see the differences in proportion. SPSS version 19 was used for data analysis

#### **RESULTS**

#### Socio-demographic characteristics of the respondents

Table 1 presents demographic characteristics of study participants. Majority (55.3%) of women were aged less than 35 years old. The mean ( $\pm$ SD) age of women was 33.20 ( $\pm$ 7.63) years. Majority (92%) of women married at the age below 25 years. The mean ( $\pm$ SD) age at marriage of women was 19.07 ( $\pm$ 3.44) years. About 75 percent of

women were Hindu, 12.6 percent were Muslim and 12.7 percent belonged to Christian, Boudh and other communities. Majority (37.1%) had education at secondary level followed by 28.8 percent had education at primary level, 19.5 percent had education at graduation level whereas 14.6 percent of women were illiterate,. The mean (±SD) education of women was 7.70 (±4.34) years. Majority (88.7%) of women was house wives whereas only 11.3 percent of women were working on paid jobs. The mean (±SD) family income was Rs. 8047.84 (±6133.66), median of family income was Rs. 6000/- and mode of family income was Rs. 5000.

Table 1: Socio-demographic characteristics of the respondents.

Socio-demographic characteristics	Number	Percent
Current age		
Less than 35 years	1082	55.3
35 years and more	876	44.7
Age at marriage		
Less than 25 years	1806	92.2
25-29 years	137	7.0
30-39 years	15	0.8
Religion		
Hindu	1462	74.7
Muslim	246	12.6
Christian	51	2.6
Boudh	169	8.6
Other	30	1.5
Education		
Illiterate	287	14.6
Primary	563	28.8
Secondary	726	37.1
Higher secondary	382	19.5
& above		
Occupation		
House wives	1736	88.7
Working	222	11.3

Awareness of STIs, cancer, cervical cancer and Pap smear test

Of the total 1958 women; 99 percent women were aware of STIs, 98 percent were aware of Cancer whereas, 37.7 percent were aware of cervical cancer and only 3.7 percent women were aware of Pap smear test.

#### Awareness of symptoms of STIs

Study participants were asked about different symptoms of STIs in women and men. About 97 percent of women were aware symptoms; abnormal discharge from vagina, 88.3 percent were aware of itching/ redness in/ around genital area, 87.4 percent were aware of burning sensation during urination, 86.5 percent were aware of lower abdominal pain, 79 percent were aware of abnormal vaginal bleeding, 74.8 percent were aware of

pain during intercourse, 18.9 percent were aware of genital lesion (sores/ulcer/warts) and 5.4 percent were aware of genital discharge in men (Figure 1).

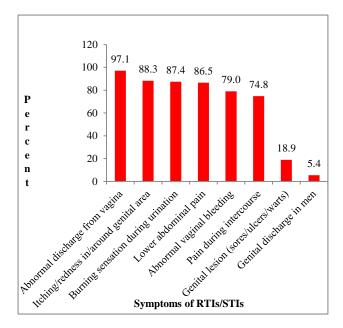


Figure 1: Awareness of symptoms of RTIs/STIs.

#### Awareness of cervical cancer and Pap smears by age of the women

About 21 percent of women aged 18-29 years followed by 39.6 percent of women aged 30-39 and 57.3 percent of women aged 40 years and above were aware of cervical cancer (Figure 2). Whereas, only 0.9 percent of women aged 18-29 years followed by two percent of women aged 30-39 years and 10.2 percent of women aged 40 years and above were aware of cervical cancer (Figure 3). Significant difference with increasing trend was observed in awareness about cervical cancer (p<0.001) and Pap smear test (p<0.001) with respect to the age of women.

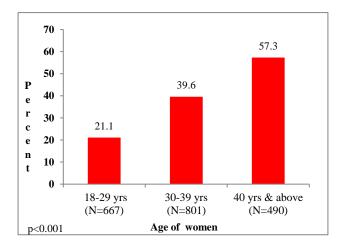


Figure 2: Awareness about cervical cancer by age of women.

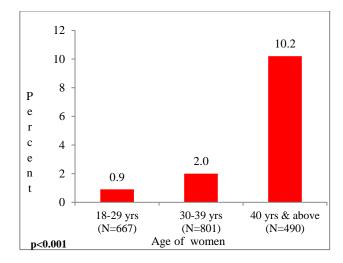


Figure 3: Awareness about Pap smear test by age of women.

### Awareness of cervical cancer and Pap smears by education of the women

About 33 percent of women having education up to primary level (0-7) followed by 37.9 percent of women with education secondary level (8-10) and 48.2 percent women with higher secondary and above (11 & above) were aware of cervical cancer. Significant difference (p<0.001) was with increasing trend was observed in awareness of cervical cancer with respect to education of women (Figure 4).

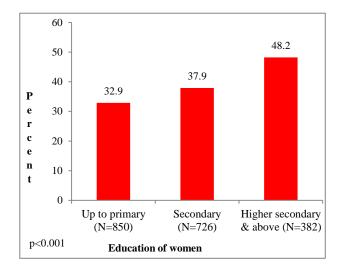


Figure 4: Awareness about cervical cancer by education of women.

Regarding awareness about Pap smear test; 4.6 percent of women with education up to primary level, 2.5 women with education secondary level and 3.9 percent women with education higher secondary and above were aware of Pap smear test. Significant difference (p<0.001) was observed in awareness of Pap smear test with respect to education of women (Figure 5).

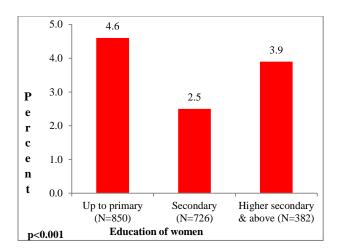


Figure 5: Awareness about Pap smear test by education of women.

Significantly more percent of working women (45%) than housewives (36.8%) were aware of cervical cancer whereas 2.7 percent of women from working group and 3.8 percent of housewives were aware of Pap smear test.

## Sexual behaviour and experience of RTIs/STIs symptoms

Six (0.3%) women had history of sex with other than spouse (husband) prior to six month of survey. All these women had sex with only one partner other than spouse. Only one woman reported irregular use of condom with her sexual partner other than husband.

Of the total 1958 women; 6.5 percent of women experienced abnormal discharge from vagina prior to six month of survey, followed by 2.9 percent of women experienced lower abdominal pain, 2.1 percent experienced burning sensation during urination, 1.7 percent experienced itching/ redness in/ around genital area whereas less than one percent of women experienced pain during intercourse (0.9%) and abnormal vaginal bleeding (0.8%). Only 0.2 percent of women experienced genital lesions.

Regarding husband experienced STI symptoms during last six months; 0.8 percent of women reported their husband had burning sensation during urination followed by 0.2 percent of women reported husband had genital lesions and 0.1 percent reported genital discharge. Women whose husbands had STI problem, reported that their husbands discussed about it with them and 65 percent of these reported that their husbands took treatment for the same.

#### Measures taken to prevent re-infection

Women (respondents) or their husbands who had STI prior to six months of survey were asked what they did to prevent the re-infection. Responding to this question; 45.8 percent of women said that both of them took

treatment, 4.2 percent of women said husband used condom and three percent of women said they abstained from sex. About 47 percent women reported that they did not do anything.

#### DISCUSSION

Awareness about STIs and cancer was observed high among women in the current study. Researchers have observed poor awareness about cervical cancer and Pap smear screening test among women. 11-14 Similar observations were found in the current study. About 38 percent of women in this study were aware of cervical cancer and only 3.7 percent of women were aware of Pap smear test. Age-wise distribution shows increasing trend in awareness of cervical cancer as well as Pap smear test. Similarly Das et al observed significantly greater proportions of adequate knowledge among women in higher age group in Delhi. 11 Awareness about STI symptoms: genital lesions and genital discharge among men was observed poor among women. Risky behaviour; multiple sexual partners was observed in few women with non-use of condom. Nancy in her study also observed 2.3 percent of women with multiple sexual partners. Non-use of condom increases risk of STIs and cervical cancer.<sup>12</sup> There is need to plan interventions targeted towards safe sex for the women. Education-wise distribution also shows increasing trend in awareness of cervical cancer. Similarly a link between formal education and awareness of cervical cancer was observed in a study conducted in Ghana.<sup>15</sup>

#### **CONCLUSION**

Study concludes that the need to disseminate knowledge regarding STI symptoms, cervical cancer and Pap smear test for early detection of cervical cancer especially with reference to younger, low educated and non-working women as well as promoting better health seeking behaviour with respect to cervical cancer and STIs. Considering of sensitivity of the topic it is necessary to design separate programmes for women.

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