

Research Article

Study of socio-demographic profile and morbidity pattern of women of reproductive age group attending sexually transmitted infections clinic at an urban health centre in Mumbai, Maharashtra, India

Sabita Meher, Sujata R. Lavangare*, Ratnendra R. Shinde

Department of Community Medicine, Seth G. S. Medical College & K. E. M. Hospital, Mumbai, Maharashtra, India

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*Correspondence:

Dr. Sujata R. Lavangare,

E-mail: sslavangare009@gmail.com

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ABSTRACT

Background: Morbidities related to reproductive health in women are largely under reported or tends to be reported at a late stage in the sexually transmitted infections (STI) clinic. Social stigma, cultural factors and non-priority to reproductive health in the family and non-involvement of the spouse are amongst the factors in the family affecting the compliance for treatment amongst women. Moreover women in most cases are deprived of their own decision-making autonomy with reference to STIs & RTIs. In most cases the woman is the passive empowered partner in acquiring STIs and RTIs. The present study was designed to understand the dynamics of the epidemiological factors compared with extent of compliance to treatment sought amongst women at the RTI/STI Clinic.

Methods: A cross-sectional study was carried out at STI clinic located in urban health centre of field practice area of Department of Community Medicine of a tertiary care teaching hospital i.e. Seth G. S. Medical College and KEM Hospital, Mumbai during the period of January 2014 to December 2015. A total of 306 reproductive women were included and a pre-designed and pre-tested questionnaire was used for the study. Data was analyzed by using statistical package of social sciences (SPSS) version 17.0.

Results: The morbidity pattern ranking from highest to lowest order showed that 171 (55.9%) women had white discharge, while 46 (15.1%) reported to have burning or pain during urination, 118 (38.6%) were having lower abdominal pain, 32 (10.5%) of women complained of dyspareunia, 12 (3.9%), and 9 (2.9%) women diagnosed as having bleeding after sex and prolapse and 5 (1.6%) had herpetic ulcer & inguinal bubo respectively. The associated medical conditions identified were 20 (6.5%) of women had diabetes, 18 (5.9%) were having hypertension, 21 (6.9%) women were having tuberculosis and 9 (2.9%) were HIV positive.

Conclusions: Almost 63% of the women were married before 18 years of age. Most of these married women were homemakers and were literate upto primary and secondary level. Early diagnosis and adequate treatment of STIs/RTIs at the first contact between patients and health care providers is therefore an important public health measure. There is a need to promote, educate and increase the awareness regarding the RTIs/STIs at the community level.

Keywords: Morbidity pattern, Socio-demographic profile, Reproductive age group, Urban slum

INTRODUCTION

Reproductive tract infections (RTIs) and sexually transmitted infections (STIs) are a predominant cause of morbidity amongst women. A wide spectrum of

reproductive health issues demand prompt attention and timely treatment.¹ Reproductive health morbidities in women are manifested as heavy periods, missed periods, painful periods, vaginal infection, miscarriage, infertility, sexual problems. Women's reproductive health is

influenced by her health during infancy, childhood, and adolescent. RTIs/STIs are determinants of infertility, ectopic pregnancy, miscarriage, low birth weight, preterm delivery, pelvic inflammatory disease, infections, cervical cancer.² RTIs and STIs are preventable diseases yet more than 6% of adults suffer from STIs in the country.³

According to World Health Organization (WHO), 448 million new STIs occur among adult age group (15-49) annually, and most of them are asymptomatic. According to World Bank estimation STIs excluding HIV account for 8.9% of the entire disease burden in women of 15-49 years.⁴ RTIs/STIs are very high in developing country as compared to developed country. It is considered as a public health problem and ranked second as the cause of loss of healthy life among women of reproductive age group.

According to the world statistics, 340 million people are affected by RTIs, out of which 30 million stays in India.⁵ Though RTIs/STIs are important from medical and public health point of view, at present, Indian studies on reproductive health of women are scanty. The study will help to find out the gaps in the implementation of STIs/RTIs programs in the study setting.

METHODS

A cross-sectional study was carried out at STI Clinic located in UHC of field practice area of Department of Community Medicine of a tertiary care teaching hospital i.e. Seth G. S. Medical College and KEM Hospital, Mumbai during the period of January 2014 to December 2015. A total of 306 reproductive women who fulfils the inclusion and exclusion criteria were included and a pre-designed and pre-tested questionnaire was used for the study. Questionnaire consists of questions related to socio-demographic factors and morbidity pattern associated with STIs/RTIs among women in reproductive age group attending STI Clinic of UHC. Study was carried out with patient consent and the institutional ethics committee approval. Attempts were made to establish good rapport with the study group. The objectives of the study were explained.

Inclusion criteria: All women (15-49 years) attending STI clinic and those who give the consent to participate in the study.

Exclusion criteria : Women who did not give the consent and pregnant women; and those below 18 years of age.

Withdrawal criteria: If the participant became distressed during interview or treatment period, due to any reason or wanted to discontinue the study midway due to any reason, she could withdraw from the study anytime.

Sample size: The formula used for calculation of sample size (n) is -

$$n = \frac{Z^2 p q \times N}{d^2 \times (N-1) + Z^2 p q}$$

z = relative deviate (at 95% confidence level) = 1.96

p = expected prevalence (as calculated from previous studies) = 40%

q = 1-p = 0.6

Absolute precision (d) = Degree of precision in terms of actual % difference

(10% of p)

Population (N) = Total number of women reported with RTIs in previous year in the STI Clinic of UHC =1153.

$$\begin{aligned} \text{Sample size (n)} &= \frac{(1.96)^2 \times 0.4 \times 0.6 \times 1153}{(0.04)^2 (1153-1) + (1.96)^2 \times 0.4 \times 0.6} \\ &= 384 \end{aligned}$$

Hence 384 was the expected sample size according to previous year report.

During the study period, women attending the STI clinic and those fulfilling the inclusion criteria were included in the study. In depth personal interview was carried out. Total 353 women attended STI clinic during the study period. Out of 353 women, 11 did not give consent, 13 left the study in between due to apprehension, hesitation, scarcity of time or other personal reason, 9 were pregnant and 14 were below 18 years of age, hence total sample became 306.

Operational definitions

Reproductive tract infections (RTIs): Reproductive Tract Infections refer to any infection of the reproductive or genital tract irrespective of whether it is sexually transmitted or not e.g., bacterial vaginosis, Chlamydia trachomatis, Neisseria gonorrhoea, vaginal discharge, lower abdominal pain, ulcers in genital organs, burning micturition, Hepatitis B, HIV/AIDS, HSV2, Trichomonas vaginalis.

Sexually transmitted infections (STIs): The RTIs which are transmitted through sexual contact are called as sexually transmitted infections.

Slum area: Slums are defined as residential areas where dwellings are unfit for human habitation due to overcrowding, faulty designs of buildings, faulty arrangements of streets, lack of ventilation, light, sanitation facilities, which are detrimental to health, safety and morals. All notified areas in a city is notified as 'slum' by State, UT Administration or Local Government under any Act including a 'Slum Act' may be considered as Notified slums.

Statistical analysis: The statistical analysis was performed by using SPSS software (version 17.0). All values are expressed in the form of percentages, proportions, mean and standard deviation wherever necessary.

RESULTS

Table 1: Socio-demographic characteristics of the study population.

Socio-demographic profile	Number	Percentage
Age (in years)	(n=306)	
<20	10	3.2
21 – 25	55	18.0
26 – 30	81	26.5
31 – 35	77	25.1
36 – 40	43	14.1
41 – 45	32	10.4
46 – 49	08	2.7
Religion	(n=306)	
Hindu	62	20.3
Muslims	232	75.8
Christain	12	3.9
Education	(n=306)	
Illiterate	37	12.1
Primary	114	37.3
Secondary	109	35.6
Higher Secondary	46	15.0
Graduate	00	00.0
Occupation	(n=306)	
House/Unemployed	215	70.3
Unskilled	91	29.7
Skilled	00	0.0
Socio-economic status	(n=306)	
Class I (Upper)	00	00.0
Class II (Upper middle)	30	9.8
Class III (Lower middle)	169	55.3
Class IV (Upper lower)	107	34.9
Class V (Lower)	00	00.0
Type of family	(n=306)	
Nuclear	199	65.1
Joint	93	30.4
Extended	14	4.6
Marital status	(n=306)	
Unmarried	17	5.6
Married	269	87.9
Widow	09	2.9
Divorce/separate	11	3.6
Age at marriage	(n=299)	
≤ 15 years	78	26.0
16-18 years	112	36.6
>18 years	109	35.5

Socio-demographic profile was depicted in Table 1. Out of the total 306 women, 81 (26.5%) belong to age group of 26-30 years followed by 77 (25.1%) belong to 31-35 years age group. Maximum were Muslims i.e. 232 (75.8%) and 62 (20.3%) were Hindu and only 12 (3.9%)

were Christian. Majority 269 (87.9%) were married and 199 (65.1%) belongs to nuclear type of family and 215 (70.3%) were homemakers or unemployed and 72.9% had primary to secondary level education followed by 37 (12.1%) who were illiterate and 112 (36.6%) had their marriage at 16 to 18 years followed by 78 (26.0%) had marriage below 15 years of age. Socio-economic status of women 169 (55.3%) belong to Class III followed by 107 (34.9%) class IV and not a single women belonged to the class I and class V.

It was seen from Table 2 that, 171 (55.9%) women had white discharge, 7 (2.3%) had non herpetic ulcer, 5 (1.6%) had herpetic ulcer & inguinal bubo, 118 (38.6%) were having lower abdominal pain, 32 (10.5%) of women complained of excessive pain during sex (dyspareunia), 96 (31.4%) had pain during menstruation while 128 (41.9%) complained about itching around genital area, 46 (15.1%) participants reported to have burning or pain during urination, 12 (3.9%) and 9 (2.9%) women diagnosed as having bleeding after sex and prolapse respectively. About 20 (6.5%) of women had diabetes, 18 (5.9%) were having hypertension, 21 (6.7%) women were having tuberculosis and 9 (2.9%) were HIV positive and only 0.9% women detected as syphilis.

Table 2: Morbidity profile of the study population.

Morbidities	Number*	Percentage
White discharge	171	55.9
Ulcer (pain/painless)	07	2.3
Ulcer (painful/herpetic/recurrent)	05	1.6
Lower abdominal pain	118	38.6
Inguinal bubo	05	1.6
Pain during sex (dyspareunia)	32	10.5
Bleeding after sex	12	3.9
Pain during menses (dysmenorrhoea)	96	31.4
Burning / pain during micturition	46	15.1
Prolapse	09	2.9
Pruritus vulva	128	41.9
Tuberculosis	21	6.7
HIV	09	2.9
Hypertension	18	5.9
Diabetes Mellitus	20	6.5
Syphills	03	0.9

*Multiple responses

DISCUSSION

In the current study, 26.5% women in the age group of 26-30 years, followed by 25.1% in the age group of 31-35 years, and 18% in the age group of 21-25 years and the mean age is 31.19 (S.D=7.32). Similarly a study done by Kazi YK et al showed that 110 (57.3%) women belonged to 22-24 years age group with mean age being 21.51

years (S.D=2.23).⁶ Another study by Panda SC et al reported 49.6% belonged to 25-34 years age group.⁷ Shethwala N et al found that 68 (45.3%) were less than 25 years, mean age of the woman was 27.37 ± 5.52 years.⁸ Study by Garg S et al among women in an urban slum found that 115 (49.8%) women were between 20-30 years of age.⁹ Choudhury S et al reported in her study that mean age was 24 years and 62% of them were in 20-30 years.¹⁰ A study by Samanta A et al showed that most of the participants 56% belonged to 30-39 years age group.¹¹ These findings are almost similar to the current study findings, may be due to increase awareness among the younger age group than the older, or the severity of symptoms.

In our study, majority participants were Muslims (75.8%) followed by Hindus (20.3%) and Christians (3.9%). Similarly study by Das D on STI/RTI among adolescent married women, found that 84% of women belonged to Hindu religion, 13.4% from Muslim religion and 2.6% from other religions.¹² Another study by Sri Devi B et al found RTI/STI was more among Hindus (28.7%) than in the other religion groups.¹³ A study by Rabiou KA et al reported most of the women 79.9% were Christian, while 20.1% women were Muslim.¹⁴

In the current study, 12.1% women were illiterate, 37.3%, and 35.6% women had studied up to primary school and secondary school respectively. Similar findings were seen in the study of Kazi YK et al, they observed that 126 (65.6%) of women educated up to secondary level.⁶ Another study by Panda SC et al between urban and rural area, reported that out of 600 women with RTI/STI, 394 (65.7%) were found to be illiterate.⁷ Similar study done by Das D showed that 49% of women are illiterate.¹² Pant B et al observed that 74.7% of married women had no schooling.¹⁵ 13.3% and 12% of women were educated up to class 1-8th standard and above 8th standard. Rathore M et al reported that 62% of the total respondents were illiterate and only 10% were educated up to higher secondary or above.¹⁶

In our study, 70.3% women were homemakers/unemployed and 29.7% were unskilled workers. Rabiou KA et al conducted a study on women with RTI/STI in Lagos found that 52.2% women were engaged in skilled occupation.¹⁴ Sri Devi B et al reported that the prevalence of RTI/STI found to be higher among unskilled workers' group 51.6%.¹³ Similar findings were seen in a study conducted by Samanta A et al she found that highest proportion (60%) were homemakers, followed by students (13%).¹¹

In the present study, majority of women living in nuclear family 199 (65%), and 14 (4.6%) of women staying in three generation family, 93 (30.4%) women came from joint family. However a study done by Yasmin S et al found that 81.5% belonged to joint family.¹⁷ Study done by Kazi YK et al mentioned in her study that 79 (41.1%) women belonged to nuclear family.⁶ Shendre MC et al

found nuclear family was significantly associated with STI/RTI.¹⁸

In our study, 26% women got married at the age of less than 15 years, and 36.6% women got married between the age group of 16-18 years. The mean age at marriage was 16.32 years (SD=4.58). Similar finding were shown by Kazi YK et al the mean age of marriage of these females was 16.90 years (S.D = 2.37).⁶ Rao V et al found more than 75% women got married before the age of 18 years, Hegde S et al found the mean age at marriage was 18.09 years (S.D=3.55) and the mean duration of marriage was 135.35 months (S.D=100.55).^{19,20} Yasmin S et al found 64.7% of the study population were married below 18 years of age.¹⁷

In the current study, 171 (55.9%) women complained white discharge, 7 (2.3%) had non herpetic ulcer, 5 (1.6%) had herpetic ulcer & inguinal bubo, 118 (38.6%) were having lower abdominal pain. Mishra A et al found that the discharge was reported as the most common complaint (100%) among female attendees followed by lower abdominal pain (61.3%), ulcers (16.6%), and nodules (11.4%) in the genitals.²¹ Ray K et al showed that the main complaints were white discharge (66.7%) and abdominal pain/low backache (3.7%).²² Yasmin S et al found 68.1% had history of abnormal vaginal discharge and 46 (50.5%) had history of lower abdominal pain.¹⁷ Nandan D et al observed that commonest symptom of RTIs/STDs was vaginal discharge (94%) followed by lower abdominal pain (55%).²³ Balamurugan SS et al found majorities of women (32.7%) complained of abnormal vaginal discharge followed by lower backache in (31.4%) and lower abdominal pain in (23.5%) women.²⁴ Sharma S et al showed that the most common presentation among women was vaginal discharge (51.9%) followed by lower abdominal pain.²⁵ Patnaik L study in Berhampur slum, Odisha showed vaginal discharge (96.42%) as the most common syndrome followed by lower abdominal pain (39.28%), inguinal swelling (3.57%), and genital ulcer (1.78%).²⁶ Study done by Chavan SS et al also revealed that 63.4% women had one or more symptoms of RTIs including vaginal discharge in 57%, burning micturition in 43%, genital itching in 45%, genital ulceration in 17%, and lower abdominal pain in 42% women.²⁷

Out of 306 women, 32 (10.5%) of women complained of excessive pain during sex (dyspareunia), 96 (31.4%) had pain during menstruation, while 128 (41.9%) complained about itching around genital area, 46 (15.1%) participants reported to have burning or pain during urination, 21 (6.7%), 12 (3.9%), and 9 (2.9%) women diagnosed as having pelvic inflammatory disease, bleeding after sex and prolapse respectively. Samanta A et al reported the most common STI symptoms among females were excessive bad smelling or coloured discharge (7.5%) followed by *Pruritus vulvi* (5.7%).¹¹ Garg S et al mentioned that out of the 144 women who experienced one or more reproductive health problems, only 40

(27.8%) consulted a health facility for treatment. The health care seeking was maximum for inguinal bubo (60%) followed by genital ulcer (50%) and urinary tract infection (48.3%).⁹ Of the women diagnosed to have vaginitis, 34% had pelvic inflammatory disease 24.6% sought treatment. Rabiou KA et al showed that commonest symptom experienced was vaginal discharge 106 (21.8%), vulval itching (17.7%), lower abdominal pain (15.0%), pain during menstruation (8.8%), pain during intercourse (2.7%), genital sore (1.2%) and genital/groin swelling (1.0%).¹⁴

CONCLUSION

The present study indicates that prevalence of RTIs/STIs morbidity is widely present in women from 15-49 years of age. Very young age at marriage exerts indirect effect on status on women of child-bearing age, thus leading to various morbidities related to RTIs/STIs. Timely prevention and management is the most important way to limit its complications and sequel, decreases the spread of STIs/RTIs and HIV in the community and offers opportunity for targeted education about reproductive health.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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