

A Study Of Prevalence Of Sexually Transmitted Infections & Factors Affecting It Among Married Women Of Reproductive Age Group

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Abstracts: Background: Reproductive tract infections (RTI), including sexually transmitted infections (STI), impose a burden of mortality & morbidity through their impact on reproductive & child health, resulting in serious economic, social & psychological consequences. Appropriate treatment of RTI/STI in combination with health education is of major public health importance. Objectives: To study prevalence of STI & factors affecting STIs among married women of reproductive age group in rural area of Parol Primary Health Centre under Thane district. Materials & Method: A community based, cross-sectional study was carried out among 415 married women of reproductive age group selected by stratified simple random sampling from each villages of respective sub centres of Parol PHC for a period of one year. Results: Of the surveyed women (415), prevalence of STI symptomatically was 39% & clinically 32.3%. The most common presenting symptom was vaginal discharge (42%) followed by Burning Micturition (24.7%), Vulval itching (17.3%), Lower abdominal pain (12.3%) & Genital ulcer (3.7%). Out of 415 surveyed women, 49.3% women were diagnosed as having cervicitis & 50.7% women were diagnosed as PID clinically. Almost more than half of the symptom-positive women were of 25-34 years of age. The prevalence of STI decreased with the level of education. Higher prevalence of STI was found in lower socio-economic group, women living in joint families, those having more number of children & women who were using reused cloth during menstruation. Conclusion: In view of the higher prevalence of STI among rural women, primary health care level needs to be strengthened in respect of reproductive health & awareness about reproductive health issues should be raised through suitable communication in order to bring about a positive behaviour change. [Parmar M et al NJIRM 2012; 3(4) : 109-113]

Key Words: Sexually Transmitted Infections, Socio-economic & demographic factors

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Introduction: Sexually Transmitted Infections (STI) are a group of communicable diseases that are transmitted predominantly by sexual contact & caused by a wide range of bacterial, viral, protozoal, fungal & ecto parasites. STIs are a significant public health problem as they cause widespread morbidity & mortality in men & women, especially of reproductive age. In developing countries, STIs are the second or third most common public health problem of young people. Each year nearly 1.3 million women die of reproductive health problems that are largely preventable & 1 out of 20 teenagers contract a Sexually transmitted disease, some of which causing lifelong disabilities such as infertility, long term disability & death, with severe medical & psychological consequences for millions of men, women & infants.¹

These STIs constitute a huge health & economic burden for developing countries & account for 17 per cent of economic losses because of ill health.

The importance of STIs has been more widely recognized since the advent of the HIV/AIDS epidemic & there is good evidence that the control of STIs can reduce HIV transmission.² Globally, it is estimated that as many as 340 million new cases of curable STDs other than HIV/AIDS occur each year, most of which are occurring in developing countries.

As large number of STIs are asymptomatic. Moreover, only part of the symptomatic population seeks health care & even a smaller number of cases are reported. The social stigma that usually associated with STIs may result in people seeking care from alternative providers or not seeking care at all. However symptomatic & asymptomatic infections can lead to the development of serious complications with severe consequences for the individuals & for the community.

The scale of the STI problem is too great to be dealt with in specialized STI centers alone & steps must be taken to expand & integrate STI management in primary health & other health facilities. But due to low literacy level, limited exposure to mass media & interpersonal communication, rural reproductive population has a very poor perception of their sexual health & sexual health needs. Further fear of internal check-up, absence of female service providers, lack of privacy & distance inhibit women from seeking treatment, hence, it is important to provide accessible STI services at the community level.³

However, most of the Indian studies on reproductive health of women have been conducted at hospitals & in clinical setting such as STI or antenatal clinic attendees. The main problem in conducting the community based study in rural India is its feasibility & accessibility to the population in need.

Taking into consideration all the above factors the study was conducted in rural area of Thane district which includes the prevalence of STI, clinical examination & factors influencing STIs.

Material and Methods: The present community based, cross-sectional study, was carried out over a duration of 12 months, among married women of reproductive age group, in Parol PHC, Taluka – Vasai, District Thane, Maharashtra state, which is affiliated to Department of Preventive & Social Medicine of Topiwala National Medical College & B. Y. L. Nair Ch. Hospital, Mumbai, as Rural Health Training Centre. Parol PHC has 7 sub centres, 17 villages & total population of 20,586, which includes 4150 married women in reproductive age group. 10% of these women (415) who were selected by stratified simple random sampling (Stratification was done as per sub centre area, to ensure representation of study subjects from entire PHC area) included in the present study.

The household survey was carried out among these women to reveal their socio demographic characteristics & reproductive history & clinical symptoms affecting the

reproductive tract. At the end of the interview session, list of the symptomatic & asymptomatic women willing for examination was given to the Auxiliary Nurse Midwife (ANM) & Anganwadi worker of the respective village, so that they can bring the women to the sub centre on the day of examination decided for clinical examination.

CONCEPTUAL FRAMEWORK OF THE STUDY:

Total population (20,586)



Divided in 7 Sub centre → Parol, Chandip, Tilher, Majivali, Medha, Bhinar, Saiwan



Listing out married women of reproductive age group from each sub enters (list was available with MO of PHC)



10% of the married women in 15-49yrs age selected from the entire PHC with equal stratification from each sub centre.



Selection of houses were done randomly from each villages of sub centre (household survey) to screen women in 15-49yrs for STI symptoms



Symptomatic & asymptomatic women were counselled for examination (per speculum).

The data was analyzed using SPSS software & then compared with various studies done previously and presented in the form of tables and graphs.

Results & Discussion: Out of 415 women we have surveyed, 49.6% women were from age group 25-34 years. Most of them (96.6%) were married. More women (56.9%) than their husband (40.2%) were illiterate. Majority of the women & their husband's were engaged in unskilled job which includes labor work, farming, brick making. 49.9% women were living in nuclear type family & 50.1% had joint family. More women were belonging to lower socio-economic group (62.5%) & 74.5% had up to 3 living children (Table No. 1).

Table No. 1: Socio-economic & demographic (N=415)

Age (yrs)	No.	%				
15 – 24	132	31.8				
25 – 34	206	49.6				
> 35	77	18.6				
Marital Status						
Married	401	96.6				
Separated (S)/Divorcee(D)	1	0.2				
Widow (W)	13	3.1				
Education						
	Respondent		Husband			
	No.	%	No.	%		
Illiterate	236	56.9	167	40.2		
Primary	35	8.4	39	9.4		
Secondary	132	31.8	155	37.3		
Higher secondary	6	1.4	29	7.0		
Graduation	6	1.4	23	5.5		
Post graduation	--	--	2	0.5		
Occupation			Respondent		Husband	
Housework	160	38.6	--	--		
Unskilled	216	52.0	283	68.2		
Skilled	39	9.4	132	31.8		
Socio-economic class			No.		%	
(Class I) Upper	88		21.2			
(Class II) Upper middle	68		16.4			
(Class III) Lower middle	90		21.7			
(Class IV) Upper lower	77		18.6			
(Class V) Lower	92		22.2			
Family Type			No.		%	
Nuclear	207		49.9			
Joint	208		50.1			
Number of Living children			No.		%	
No living child	30		7.2			
Up to 3	309		74.5			
>3	76		18.3			

The above table gives clear picture about symptomatic prevalence of STI which was 39%. All women gave consent for examination of which clinical prevalence of STI was 32.3% (Table No. 2). In a study done by Monika Rathore, symptomatic prevalence of STIs was found to be 55% & clinical prevalence of STIs was 61%.⁴

Table No. 2: Prevalence of Symptomatic & clinical STIs

Total surveyed women of reproductive age groups	415	
1. Symptomatic prevalence of STIs	162	39%
2. Clinical prevalence of STIs	134	32.3%

Table No. 3: Different STIs diagnosed symptomatically & clinically (N=415)

SYMPTOMATICALLY DIAGNOSED STIS	No.	%
Vaginal Discharge	68	42.0%
Burning Micturition	40	24.7%
Vulval itching	28	17.3%
Lower abdominal pain	20	12.3%
Genital ulcer	06	03.7%
Total	162	100%
CLINICALLY DIAGNOSED STIs	No.	%
1. Cervicitis	66	49.3%
2. PID	68	50.7%
Total	134	100%

Table No.3 reveals that, the most common presenting symptom was vaginal discharge (42%) followed by Burning Micturition (24.7%), Vulval itching (17.3%), Lower abdominal pain (12.3%) & Genital ulcer (3.7%).

Out of 415 surveyed women, 49.3% women were diagnosed as having cervicitis & 50.7% women were diagnosed as PID clinically.

In a study done by S C Panda, the prevalence of STI was 39.2% with a higher rural (44%) than urban (32%). The commonest symptom of STI was vaginal discharge (91%) followed by lower abdominal pain 64%, backache (76%), Vulval itching (51%) & burning during urination (34%).⁵

Highest prevalence of STI was found in the 25–34 years age group (58.7%). Highest prevalence of STI was found in those having primary education (71.4%) & in illiterates group (49.1%). The prevalence of STI decreased with the level of education. Higher prevalence of STI was found in lower socio-economic group than in higher socio-economic group. The prevalence of STI was found

to be highest in women living in joint families (61.5%) than those living in nuclear family i.e. 16.4%. The STI prevalence was found to be more among those having more number of children i.e. (81.6%) more than 3 children. Higher prevalence of STI was observed in those women who were using reused cloth (52.2%) & least in those using sterilized pads (5.6%) during menstruation. All the results were found to be statistically significant (Table No. 4).

Table no. 4. Prevalence of STI by socio – economic demographic factors (n=415)

Factor	Total = 415		Total
	Present (N=162)	Absent (N=253)	
Age			
15-24	21 (15.9)	111 (84.1)	132
25-34	121 (58.7)	85 (41.3)	206
> 35	20 (26)	57 (74)	77
X² = 68.79; df =2; P value= 0.00 Significant			
Marital Status			
Married	159 (39.7)	242(60.3)	401
S/D/W	3 (21.4)	11 (78.6)	14
X² = 1.89; df =1; P value= 0.16 Non Significant			
Education			
Illiterate	116 (49.1)	120 (50.9)	236
Primary	25 (71.4)	10 (28.6)	35
Secondary	19 (14.4)	113 (85.6)	132
HS & more	2 (16.7)	10 (83.3)	12
X² = 61.79; df =3; P value= 0.00 S			
Occupation			
Housework	70 (43.8)	90(56.3)	160
Unskilled	82 (38)	134 (62)	216
Skilled	10(25.6)	29(74.4)	39
X² = 4.54; df =2; P value= 0.10 Non Significant			
Socio-economic class			
Upper	20 (22.7)	68 (77.3)	88
Upper middle	15 (22.1)	53 (77.9)	68
Lower middle	25 (27.8)	65 (72.2)	90
Upper lower	44 (57.1)	33 (42.9)	77
Lower	58 (63.0)	34 (37)	92
X² =55.75; df =4; P value= 0.00 Significant			
Family Type			
Nuclear	34 (16.4)	173(83.6)	207
Joint	128 (61.5)	80 (38.5)	208

X² = 88.73; df =1; P value= 0.00 Significant			
No. of Living Children			
No living child	5 (16.7)	25 (83.3)	30
Up to 3	95 (30.7)	214 (69.3)	309
>3	62 (81.6)	14 (18.4)	76
X² = 73.04; df =2; P value= 0.00 S			
Menstrual Hygiene			
Reused clothes	155(52.2)	142 (47.8)	297
Once used	5 (26.8)	77 (73.2)	82
Disposable pads	2 (5.6)	34 (94.4)	36
X² = 75.93; df =2; P value= 0.00 Significant			

The prevalence of STI was found to be 39.7 % in married women while it was 21.4% in separated/divorcee/widow women. The prevalence of STI was 43.8% in those doing household activities while it was 38% among unskilled worker & 25.6 % among those doing skilled work. The differences in STI prevalence by marital status & occupation were not statistically significant (Table No. 4).

The prevalence of STI was high in 25-34 years age group which may be attributed to higher proportion of married people in the younger age group & higher sexual activity in this age group. Present study revealed that prevalence of STI decreased with an increase in the level of education. Similar results were obtained by Deoki Nandan et al (2002).⁶

The prevalence of STI was observed maximum in women having more no. of children which was similar to that found in study done by Monika Rathore et al. in Rajasthan (13%).⁷ The prevalence of STI in the present study was 16.4 % in nuclear families & 61.5 % in joint families. Similar results were obtained in study done by Monika Rathore et al. in Rajasthan.⁷

Conclusion: The study reveals that the prevalence of STI among married women of reproductive age was quite high, with rural women being worse sufferers. The younger women, women of lower socio-economic group, those with more number of children & those using reused clothes during menstruation, have a particularly higher

prevalence. Prevalence of STI was proportionally associated with illiteracy. The commonest reported symptom of STI was vaginal discharge.

Such a high frequency of STI requires suitable diagnostic & treatment facilities. World Health Organization has simplified the diagnosis as well as treatment through adoption of the recommended 'syndromic approach' which is an appropriate approach for tackling this huge problem.

To increase the access, STI treatment facility should be part of the primary health care. Village health workers should be trained to identify STI among women by syndrome approach.

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