

Awareness and Perception of Sexually Transmitted Disease (STI) in females: A cross sectional study

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Abstract—*Reproductive tract infections (RTIs) including sexually transmitted infections (STIs) is a public health importance as it adversely impacts the reproductive health of people. So this present study was conducted on 360 females of slum area of Jaipur city to assess the awareness about STI/RTI and their perception and practices. Prevalence of RTI/STI among females (15-49 years) of slum area of Jaipur was found 38.2%. Awareness regarding symptoms of RTI/STI, mode of its spread and its prevention was 39.7%, 33.6% and 28.6% respectively. Regarding treatment seeking behavior for RTI/STI more women from higher socioeconomic status as well as higher educational status were opting for taking treatment. This awareness not found to be affected by literacy level of females.*

Perception and practices regarding choice of health facility for treatment of RTI / STI, it was observed that 57.8% females were of opinion that treatment for RTI / STI should be taken, 32.5% of the females actually took the treatment and 42.2% of females believed that there is no need of treatment. Maximum females (23.6%) believed that treatment should be taken from lady doctor. Among those who took the treatment, half (42.3%) of them took treatment from lady doctor.

Keywords: *Reproductive Tract Infections (RTIs), Sexually Transmitted Infections (STIs), Awareness, Perception and Practices.*

I. INTRODUCTION

Reproductive tract infections (RTIs) including sexually transmitted infections (STIs) present a hung burden of disease and adversely impacts the reproductive health of people. They cause suffering for both men and women around the world but their consequences are far more devastating and wide spread among women than among men. The estimate also indicated that about 40% of women have RTI / STI at any given point of time but only 1% completes the full treatment of both partners.¹

So this study was conducted in Mahila Chikitsalay to estimate the burden of RTI/STI in females attending this hospital.

II. METHODOLOGY

This present descriptive observational study was carried out with the objective to find out the prevalence of RTIs / STIs through syndrome approach and its correlates among females (15-49) attending Mahila Chikitsalaya, SMS Medical College, Jaipur from August 2014 to July 2015.

As study was descriptive so sample size was calculated by using the following formula.

$$\text{Sample size (n)} = \frac{4pq}{(20\% \text{ of } p)^2}$$

Where

p = prevalence of RTI's / STI's i.e. 22.4% (Patnaik L et al – 2007)²

q = 100-p

20% = allowable margin of error

$$n = \frac{4 \times 22.4 \times 77.6}{(20\% \text{ of } 22.4)^2} = 346.44$$

Sample size for this study was calculated 347 subjects at 95% confidence limit and 20% allowable error assuming RTI prevalence 22.4%² So for this study 360 women was surveys to find out STI and their perception regarding STI.

Survey was carried out in selected slum area though house to house survey till the desired sample size was achieved. After entering the household, all females in the reproductive age group (15-49) were identified, consent was taken, interview was taken on the Schedule I which had general information with awareness about STI/RTI. Examination was conducted. Females having one or more of the following signs and symptoms like vaginal discharge, lower abdominal pain, genital ulcers, inguinal bubo were identified. So females with STI/RTI were identified and they were interviewed about perception and practices of STI and treatment seeking behavior. Those females who were not under treatment were counseled and given a referral card to visit either D type health centre in the area of SMS Medical College or District women hospital, SMS Medical College so that case was diagnosed, information entered on the card and treatment started. Socio economic class of the target population was assessed on the basis of modified Kuppaswamy's classification.³

Information thus collected from target population was computerized in Microsoft Excel 2007 worksheet on a regular basis as master chart. With these data descriptive statistics was analyzed and various associations were inferred statistical software Primer Version 6.

III. RESULTS

Out of the total studied 360 females, majority i.e. nearly three fourth (73.7%) females were in the age group of 20-40 yrs while only 7.8% females belonged to 15-19 yrs. 55% belonged to Hindu religion and 62.8% were belonging to the nuclear families. Majority i.e. 47.8% belonged to backward class and according to Kuppaswamy's classification 2007 classification, majority i.e. 55% of the females were placed in class IV followed by SES class III, II and I. Among these, 87.8% respondent were married and 12.2% were unmarried. Majority (40%) of the females were illiterate. In 40.0% females the age of marriage was 18-22 years while 25.7% women had marriage at the age of less than 18 years and 33.2% married at the age of more than 22 years. Nearly half (47.8%) of the women has one or two children (Table 1).

Table 1
General Characteristics of Women Studied (N=360)

Variables of General Characteristics		No.	%
1) Religion	Hindu	198	55
	Muslim	162	45
2) Type of Family	Nuclear	226	62.8
	Joint	134	37.2
3) Socio-economic Class	I	7	1.9
	II	13	3.6
	III	46	12.8
	IV	198	55
	V	96	26.7
4) Age	15-19	28	7.8
	20-24	48	13.4
	25-29	96	26.7
	30-34	60	16.7
	35-39	61	16.9
	40-44	54	15.0
	45-49	13	3.6
5) Marital status	Married	316	87.8
	Unmarried	44	12.2
6) Education	Illiterate	144	40
	Primary	44	12.3
	Middle	64	17.8
	High School	60	16.6
	Inter	26	7.2
	Graduation	14	3.9
	Post graduate	8	2.2
7) Age at marriage	<18	82	25.9
	18-22	129	40.8
	>22	105	33.2
8) Number of living children	0	18	5.7
	1	53	16.8
	2	98	31.0
	3	63	19.9
	4	43	13.6
	5 & more	41	13.0

Awareness regarding symptoms of RTI /STI was present in 39.7% of females. Regarding awareness of individual symptoms, it was found for vaginal discharge being 24.2% while for genital ulcers, lower abdominal pain and for inguinal bubo it was 6.4%, 13.6% and 1.7% respectively. Overall awareness regarding symptoms was lowest (30.6%) in those educated upto middle school, which was increasing with educational status being 59.3% in those educated upto intermediate and 68.2% in females who were educated upto postgraduate. (Table 2)

Regarding awareness about mode of spread of RTI / STI, it was found that 33.6% females were awareness about various modes of spread. Maximum respondents (24.2%) believed that RTI /STI occur due to lack of personal hygiene followed through multiple sex partner. Only 3.6% females believed that

RTI may occur through single sex partner. Awareness regarding mode of spread was also increasing with increasing level of education. (Table 2)

Awareness regarding prevention of RTI / STI was present in 28.6% of study population. 23.9% females believed that RTI can be prevented by use of condom and almost equal number of females believed that it can be prevented by becoming faithful to partner. Awareness regarding prevention was minimum in those educated upto middle school (20.2%) and increases with education. (Table 2)

Table 2
Awareness about RTI / STI among study population

Variables regarding RTI/STI & Chi-square Test P value LS		Knowledge in relation to literacy status							
		Upto middle school (n=252)		Upto intermediate (n=86)		Upto postgraduate (n=22)		Total (n=360)	
		N	%	N	%	N	%	N	%
Awareness about symptoms of RTI / STI (N=143) 7.452 at 6 DF P = 0.281 NS	Vaginal discharge	43	17.1	32	37.2	12	54.6	87	24.2
	Genital ulcer	6	2.4	10	11.6	7	31.8	23	6.4
	Lower abdominal pain	22	8.7	17	19.8	10	45.6	49	13.6
	Inguinal budo	1	0.4	3	3.5	2	9.1	6	1.7
	Total	77	30.6	51	59.3	15	68.2	143	39.7
Awareness about mode of spread of RTI / STI (N=121) 3.491 at 8 DF P = 0.900 NS	Multiple sexual partner	38	15.1	22	25.6	9	40.9	69	19.2
	Unisexual partner	7	2.8	4	4.6	2	9.1	13	3.6
	Lack of personal hygiene	57	22.6	23	26.7	7	31.8	87	24.2
	Urination at Dirty places	13	5.2	5	5.8	1	4.6	19	5.3
	Lack of reproductive hygiene	19	7.5	11	12.8	3	13.6	33	9.2
	Total	75	29.8	34	39.5	12	54.6	121	33.6
Awareness about prevention of RTI / STI (N=103) 7.206 at 6 DF P = 0.302 NS	Faithful to partner	23	9.1	13	15.1	11	50.0	47	13.1
	Use of condom	39	15.5	31	36.0	16	72.7	86	23.9
	Personal Hygiene	32	12.7	9	10.5	8	36.4	49	13.6
	By taking timely treatment	7	2.8	6	6.9	4	18.2	17	4.7
	Total	51	20.2	34	39.5	18	81.8	103	28.6

***multiple response**

Treatment seeking behavior of females having RTI / STI depicts that only 32.5% women were taking treatment. It was maximum (100%) in class I followed by class II, III, IV and Class V. So as socioeconomic status was decreasing, the treatment seeking practices also were decreasing, however this difference was not found to be statistically significant ($\chi^2=8.97$, $df = 4$, $p>0.05$). (Table 3)

Regarding relation with educational status, the proportion of women seeking treatment increases as literacy status increases. Treatment seeking behavior was maximum in post graduate females i.e. 100%

and minimum in illiterate females (24.0%) but this difference was also not found to be significant ($\chi^2 = 8.82$, $df = 6$, $p > 0.05$). (Table 3)

Treatment seeking behavior with respect to age was found to be maximum i.e. 54.2% in 30-34 years age group and it was minimum i.e. 16.7% in 20-24 years age group, however this difference was also not found to be significant ($\chi^2 = 7.82$, $df = 6$, $p > 0.05$). (Table 3)

Table 3
Treatment seeking behavior of women having RTI / STI

Variables socio-economic status	Cases		Seeking Treatment		P value
	No.	%	No.	%	
Class I (n=7)	2	28.6	2	100.0	p>0.05
Class II (n=13)	5	38.5	2	40.0	
Class III (n=46)	16	34.8	5	31.3	
Class IV (n=198)	77	38.9	30	38.9	
Class V (n=96)	60	62.5	13	21.7	
Educational status					
Illiterate (n=144)	75	52.1	18	24.0	p>0.05
Primary (n=44)	23	52.2	7	30.4	
Middle School (n=64)	27	42.2	10	37.0	
High School (n=60)	23	38.3	10	43.5	
Intermediate (n=26)	8	30.8	4	50.0	
Graduate (n=14)	3	21.4	2	66.6	
Post-graduate (n=8)	1	12.5	1	100.0	
Age groups					
15-19 (n=28)	5	17.9	1	20.0	p>0.05
20-24 (n=48)	18	37.5	3	16.7	
25-29 (n=96)	67	69.8	21	31.3	
30-34 (n=60)	24	40.0	13	54.2	
35-39 (n=61)	18	29.5	6	33.3	
40-44 (n=54)	24	44.4	7	29.2	
45-49 (n=13)	4	30.8	1	25.0	
Total (N=360)	160	44.4	52	32.5	

Perception and practices regarding choice of health facility for treatment of RTI / STI, it was observed that 57.8% females were of opinion that treatment for RTI / STI should be taken, 32.5% of the females actually took the treatment and 42.2% of females believed that there is no need of treatment. Maximum females (23.6%) believed that treatment should be taken from lady doctor. Among those who took the treatment, half (42.3%) of them took treatment from lady doctor. (Table 4)

Table 4
Perception and Practices of study population regarding Treatment and choice of health facility

Variables		Perception		Practices	
		No.	%	No.	%
Regarding Treatment	Yes	208	57.8	52	32.5
	No	208	57.8	52	32.5
Type of health facility	Government	57	15.8	7	13.5
	Private	33	9.2	6	11.5
	Lady doctor	85	23.6	22	42.3
	Medicine from chemist	25	6.9	12	23.1
	Quack	8	2.2	5	9.6

IV. DISCUSSION

In this present study out of 360 females, 55% were Hindus and 45% were Muslims. Although In NFHS III (2005-2006)⁴ report it was found that 82% households were Hindus and 17% were Muslims in Rajasthan. This difference may be due to selected slum area of Jaipur in this study.

In this study 42.5% females belonged to general caste, 47.8% to backward castes and 9.7% to schedule caste where as in NFHS III (2005-2006)⁴ report, it is 26%, 50% and 24% respectively. This difference may be again due to selection of areas for study and regional variation in casts wise distribution of population.

In present study, 62.8% of the study population belonged to nuclear families and as observed in this study that majority (81.7%) of the females belonged to low socioeconomic status, Agrawal R. (2005)⁵ also reported that maximum (78%) of the study population belong to socioeconomic class IV and V.

Likewise this study, Pant B (2000)⁶ who found that 57.3% of females were in age group of 20-35 years, 6.8% in 15-19 yrs and 35.9% females were in the age group of 35-49 years, which was well comparable to present study. Bansal KM et al (2001)⁷ reported almost similar findings regarding proportion of married females i.e. 90% v/s 87.8% in present study. Likewise almost similar observations were made by Bang RA et al (2009)⁸ regarding literacy status of females who reported. 47% illiterate females which were 40% were in present study. Regarding age at marriage, RCH II (2002 - 2004)⁹ reported that 27.7% females were married below 18 years which was 25.9% in present study.

In this study, prevalence of RTI/STI was observed 30.8%. This was in accordance with findings of Dasgupta A. et al (2006)¹⁰ and Panda SC (2007)¹¹ who this 43.3% and 44% respectively. Some other authors^{12,13} had reported varied response from 34.08% to 49% prevalence of STI/RTI.

Overall awareness regarding symptoms of RTI/STI was present in 39.7% of females. Regarding mode of spread of RTI/STI, awareness was in 33.6%. Maximum females (24.2%) believed that RTI/STI occurs due to lack of personal hygiene and only 3.6% females believed that RTI might occur through single sex partner. Awareness regarding prevention of RTI/STI was present in 28.6%. 23.9% females believed that RTI could be prevented by use of condom. However, in RCH II (2002-2004)⁹ report awareness regarding RTI/STI was 4.5% among female respondents. The difference may be because RCH II includes whole of the Jaipur and present study is confined to only two slums of Jaipur city.

Consistent to the findings in our study in RCH II report also maximum females believed that RTI occur due to lack of personal hygiene.

V. CONCLUSION

Prevalence of RTI/STI among females (15-49 years) of slum area of Jaipur was found 38.2%. Awareness regarding symptoms of RTI/STI, mode of its spread and its prevention was 39.7%, 33.6% and 28.6% respectively. Regarding treatment seeking behaviour for RTI/STI more women from higher socioeconomic status as well as higher educational status were opting for taking treatment. This awareness not found to be affected by literacy level of females.

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CONFLICT

None declared till date.

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