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Original Research Article

Prevalence of reproductive tract infections and sexually transmitted infections among married women in the reproductive age group in urban slum of Bidar, Karnataka

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ABSTRACT

Background: Reproductive tract infections (RTIs) and sexually transmitted diseases (STDs) represent a major public health problem in developing countries. The consequences of RTIs are numerous and potentially devastating. The present study was conducted to give some indication of the likely burden of RTIs in urban slum of Bidar and also highlight some associated factors.
Methods: This study was conducted with the objective of assessing the prevalence of various RTIs among married women in the reproductive age group of 15-44 years in an urban slum of Bidar (Karnataka) during September 2015 to February 2016. Total 357 married women in the reproductive age group of 15-44 years were interviewed.
Results: The prevalence of RTI was found 36.1% with maximum prevalence of 42% in the age group of 35 years and above. Also the prevalence was high in illiterate women (53.2%), women having one or two children (54.1%), women using IUD (54.5%) and women having per capita income <Rs. 1000/- (46.35%).
Conclusions: The prevalence of reproductive tract infections was most commonly associated with increasing age, illiteracy, low income, use of contraceptive methods and higher parity. The commonest reported symptom of RTI/STI was vaginal discharge. The RTI services should be focused on low income groups and health education regarding prevention and control of RTIs should be widely disseminated.

Keywords: Reproductive tract infection, Sexually transmitted diseases, Syndromic management

INTRODUCTION

Reproductive tract infections (RTIs) and sexually transmitted diseases (STDs) represent a major public health problem in developing countries.[1] The consequences of RTIs are numerous and potentially devastating. These include postabortal and puerperal sepsis, ectopic pregnancy, fetal and perinatal death, cervical cancer, infertility, chronic physical pain, emotional distress, and social rejection of women.[2] In Indian community based studies, the range of self-reported morbidity has been reported to vary from 39-84%.[3,4] Most of the Indian studies in the field of reproductive health care are based on clinical examination and a few are based on laboratory tests.[5]

Hence the present study was conducted at Urban Health and Training Centre, Bidar Institute of Medical Sciences, Bidar to give some indication of the likely burden of the disease in the urban slum of Bidar and also highlights some associated factors.

METHODS

This study was conducted with the objective of assessing the prevalence of various RTIs among married women in

the reproductive age group of 15-44 years in an urban slum of Bidar (Karnataka) during September 2015 to February 2016. Total 357 married women in the reproductive age group of 15-44 years were interviewed with pre-tested predesigned questionnaire. All the women attending OPD were interviewed except the pregnant and puerperal women and women not willing to participate in the study. The syndromes related to women such as vaginal discharge, genital ulcer disease, lower abdominal pain, and inguinal bubo based on the syndromic approach as recommended by the Government of India, Ministry of Health and Family Welfare for the management of RTIs/STDs were considered. The case definitions of these syndromes as recommended by National AIDS Control Organization were strictly followed for diagnoses and treatment of patients. Each woman was interviewed in private about her socio–demographic and reproductive history, current and past symptoms affecting the reproductive tract, and past sexual behavior etc. All the women suffering from RTIs were given prescriptions in accordance with syndromic management guidelines by NACO.

RESULTS

It was seen from Table 1 that a total 357 married women in the reproductive age group of 15-44 years old in an urban slum of Bidar were interviewed and 129 of them were found to be suffering from RTIs giving a prevalence of 36.1%. Maximum prevalence was seen in the age group 35 years and above (42.0%) and as the age increases the prevalence of RTIs increases. The difference was statistically significant (X^2=3.95, p=0.138).

Table 1: Socio-demographic characteristics of the sexually active married women in the reproductive age group of 15-44 years.

Socio-demographic characteristics	No. of participants	No. of symptomatic patients	Percentage (%)	P value
Age (in years)				
<25	54	11	20.3	X^2=3.95 P=0.138
25-34	196	76	38.7	
≥35	100	42	42.0	
Marital status				
Married	337	122	36.2	X^2=0.02 P=0.88
Divorced/widowed	20	07	35.0	
Education				
Illiterate	107	57	53.2	X^2=12.76 P=0.01
Primary	63	25	39.6	
Middle	67	22	32.8	
High and secondary	94	18	19.1	
Graduate and above	26	07	26.9	
Occupation				
Housewife	315	115	36.5	X^2=1.27 P=1.00
Agriculture	06	03	50.0	
Service	14	03	21.4	
Others	22	06	27.2	
No. of children				
None	31	07	22.5	X^2=10.02 P=0.04
1-2	109	59	54.1	
3	98	28	28.5	
4	69	21	30.4	
5+	50	14	28.0	
Contraception				
None	232	73	31.4	X^2=5.50 P=0.23
Condom	06	01	16.6	
OCP	16	04	25.0	
IUD	11	06	54.5	
Tubectomy	92	45	48.9	
Per capita income (in Rs.)				
<1000	166	77	46.3	X^2=6.67 P=0.03
1001-2000	162	45	27.7	
>2000	29	07	24.1	

The prevalence of RTIs was found to be higher in illiterate women (53.2%) and it showed a decreasing trend with an increase in the level of education and the difference was statistically significant (X^2=12.76, p=0.01). The prevalence of RTIs was (20.3%) in <25 years, (38.7%) in 25-34 years and (42.0%) in ≥35 years and as age increases the prevalence of RTIs also increases and the difference was statistically significant (X^2=3.95, p=0.138).

The prevalence of RTIs was found very less in women who had no children (22.5%) as compared with women who had children (X^2=10.02, p=0.04). A higher prevalence (54.1%) was found among women who had one or two children and did not vary much during subsequent deliveries (28.5%, 30.4% and 28.0%). The prevalence of RTIs is less in women who were not using contraceptives (31.4%) as compared with those who were using and the difference was found statistically significant (X^2=5.50, p=0.23). A total 54.5% of the women using intrauterine devices and 48.9% of women who had tubectomies had RTIs. The prevalence of RTIs among women using oral contraceptive pills and condoms was less (25.0% and 16.6% respectively). The prevalence of RTIs was more in low socioeconomic group women having per capita income <Rs. 1000 (46.3%), as compared with women having per capita income Rs. 1001-2000 (27.7%) and women having per capita income >Rs. 2000 (24.1%). The difference was statistically significant (X^2=6.67, p=0.03). The prevalence of RTIs is inversely proportionate to the per capita income.

Table 2: The prevalence of symptoms among the study population.

Symptoms	Symptomatic patients n=129 (%)	Study population n=357 (%)
Vaginal discharge	108 (83.7)	108 (30.2)
Lower abdominal pain	107 (82.9)	107 (29.9)
Genital ulcer disease	01 (0.07)	01 (0.02)
Inguinal lymphadenopathy	00 (00.0)	00 (00.0)
Genital skin conditions	01 (0.07)	01 (0.02)

It was evident from Table 2 that the prevalence of RTIs among women was 60.14% and the most common presentation was vaginal discharge (30.2%) followed by lower abdominal pain (29.9%), genital ulcer disease (0.02%) and genital skin conditions (0.02%).

DISCUSSION

In the present study, the prevalence of RTIs was 60.14%. The prevalence of RTIs/STDs was also found to be 49% in a rural area of Agra, while 70% of the women studied in rural area of Haryana were found to be suffering from RTIs.[6,7] Other studies have reported similar rates of RTIs in community based studies in developing countries.[3,5] Also the prevalence of RTIs was 51.9% in community based study conducted by Sharma et al.[8] in rural area of Himachal Pradesh. Another study conducted by Chavan et al also found 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.[9]

In this study, maximum prevalence was found in the age group of 25-34 and >35 years a period of maximum sexual and reproductive activity. A similar observation was made in this age group in a study conducted by Nandan et al in Agra.[6] Also similar observation was found in study conducted by Sharma et al in Himachal Pradesh.[8]

In present study, maximum prevalence of RTIs was found in women having low per capita income, having three or more children and those who were using intra uterine devices and tubectomy as method of contraception. Similar findings were found in study conducted by Sharma et al and Bhilawar et al.[8,10]

It was observed from present study that 54.5% of women among IUD users had RTIs. This is in accordance with the observation of Thakur et al where maximum 67% women among IUD users had RTIs. IUD users are at more risk of acquiring RTI as they are exposed to iatrogenic and exogenous infections.[11]

CONCLUSION

The prevalence of reproductive Tract Infections was most commonly associated with increasing age, illiteracy, low income, use of contraceptive methods and higher parity. The commonest reported symptom of RTI/STI was vaginal discharge. The RTIs services should be focused on low income groups and health education regarding prevention and control of RTIs should be widely disseminated. To increase the access, RTI/STI treatment facility should be part of the primary health care. Para medical staffs should be trained to identify RTI/STIs among women by syndrome approach. They should be well-versed with proper communication strategies to sensitize women about reporting their reproductive problems.

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REFERENCES

1. Vishwanath S, Talwar V, Prasad R, Coyaji K, Elias CJ, de Zoysa I. Syndromic management of vaginal discharge among women in a reproductive health clinic in India. Sex Transm Infect. 2000;76:303-6.
2. Garg S, Sharma N, Bhalla P, Sahay R, Saha R, Raina U, et al. Reproductive morbidity in an Indian urban slum: Need for health action. Sex Transm Infect. 2002;78:68-9.
3. Bang RA, Bang AT, Baitule M, Choudhary T, Sarmukaddam S, Tale O. High prevalence of gynaecological diseases in rural Indian women. Lancet. 1989;1:85-8.
4. Latha K, Kanani SJ, Maitra N, Bhattacharya RV. Prevalence of clinically detectable gynaecological morbidity in India: Results of four community based studies. Family welfare. 1997;43:8-16.
5. Passey M, Mgnoe CS, Lupiva S, Tiwara S, Lupiva T, Alpres MP. Screening for sexually transmitted diseases in rural women in Papua New Guinea: Are WHO therapeutic algrorithms appropriate for case detection? Bull World Health Organ. 1998;76:401-11.
6. Nandan D, Misra SK, Sharma A, Jain M. Estimation of prevalence of RTIs/STDs among women of reproductive age group in Dist. Agra. J Med. 2002;37:110-3.
7. Aggarwal AK, Kumar R, Gupta V, Sharma M. Community based study of reproductive tract infection among ever married women of reproductive age in a rural area of Haryana. Indian J Community Med. 1999;31:223-8.
8. Sharma S, Gupta BP. The prevalence of reproductive tract infection and sexually transmitted diseases among married women in the reproductive age group in rural area. Indian J Community Med. 2009;34:62-4.
9. Chavan SS, Giri PA, Singh VS, Sankaranarayan S. Study of Pap smear and other feasible tests among self-reported symptomatic married women in reproductive age group (15-49 yrs) regarding reproductive tract infections in a rural community of Maharashtra. Int J Res Med Sci. 2013;1:545-51.
10. Bhilwar M, Lal P, Sharma N, Bhalla P, Kumar A. Prevalence of reproductive tract infections and their determinants in married women residing in an urban slum of North-East Delhi, India. J Ntrl Sci Bio Med. 2015;6:29-4.
11. Thakur JS, Swami HM, Bhatia PS. Efficiency of syndromic approach in management of reproductive tract infection and associated difficulties in a rural area of Chandigarh. Indian J Community Med. 2002;27:110-3.

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