

**ORIGINAL ARTICLE**

# A COMPARATIVE STUDY OF HEALTH CARE SEEKING BEHAVIOUR OF WOMEN OF REPRODUCTIVE AGE FOR SEXUALLY TRANSMITTED DISEASES / REPRODUCTIVE TRACT INFECTIONS IN THE RURAL AND URBAN AREAS OF BAREILLY DISTRICT

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**ABSTRACT**

**Objectives:** The study was conducted with an objective to study the treatment seeking behaviour of women of reproductive age group (15-45 years) in both rural and urban areas of the District along with estimation of the cases of STDs/RTIs as per WHO's syndrome case definitions

**Methodology:** A cross sectional study was conducted during May-June 2010 among women of reproductive age group (15-45 years) in the urban and rural areas of Bareilly District to study their Health Care Seeking behaviour for Sexually Transmitted Diseases (STDs)/Reproductive Tract Infections (RTIs). The two stage cluster sampling technique was adopted. A structured questionnaire was used to interview the study participants by house to house surveys. Each woman from selected household was interviewed in private about her reproductive history, clinical history (as per WHO's syndrome case definition) and place from where the treatment of STDs/RTIs was taken. Statistical analysis was done with SPSS computer software. Chi ( $\chi^2$ ) square test used, p value was calculated, p value less than 0.05 was considered for the statistical significance.

**Results:** Out of total 620 women studied (310 each from urban and rural areas), 25.81% of rural and 6.77% of urban respondents had suffered from RTIs/STDs. Among these abnormal vaginal discharge (9.43%) was the commonest problem encountered in rural areas whereas lower abdominal pain (5.53%) was commonest in the urban areas. Government health facilities (District hospitals/CHCs/PHCs/SCs) were the main sources from where the treatment was sought by the women from both areas i.e. Urban (52.38) and Rural Areas (51.25%).

**Key-words:** Health Care Seeking Behaviour, STDs (Sexually transmitted Diseases), RTIs (Reproductive Tract Infections)

**INTRODUCTION**

The problem of Sexually Transmitted Diseases (STDs)/Reproductive Tract Infections (RTIs) among women aged 15-45, and men aged 20-54, is increasing at an alarming rate in India, though these were reported in India much later than in

the United States of America (USA) and African Countries. International experience has shown that these infections increase one's risk of contracting Human Deficiency Virus (HIV)/Acquired Immuno Deficiency Syndrome (AIDS).

Indeed, a large number of studies suggest that STDs/RTIs treatment has a measurable effect on reducing HIV infectiousness and susceptibility at both the individual and general population levels. Although STDs/RTIs affect both women and men, research shows that women are more susceptible to infection and less likely to seek treatment than men.

It is also important to note that STDs/RTIs are often asymptomatic in women, which complicates STDs/RTIs and HIV control efforts. Moreover, complications can be more serious in women and the infection transmitted to the offspring of pregnant women. Women run a greater risk of STDs/RTIs because they are biologically more susceptible than men, usually infected at a younger age than men, more likely to suffer from complications, limited in their ability to protect themselves from high-risk sex or to negotiate condom use with the partner, more apt to suffer from asymptomatic infections and remain untreated and less likely to seek treatment, even for symptomatic infections.

In rural areas, the lack of awareness and health facilities in turn lead to a high incidence of STDs/RTIs. The prevalence of STDs/RTIs is much higher among women than among men, in India, but with regard to treatment-seeking the situation is just the opposite-far fewer women seek treatment, than do men.

However in spite of the availability of low cost and appropriate technologies to manage STDs/RTIs in the primary health care setting most of the sexually transmitted infections remain hidden and unrecorded and a very small proportion of people (5-10%) suffering from the disease attend government health facilities<sup>1</sup>. There have been relatively few studies on of health care seeking behaviour in relation to Sexually Transmitted Diseases (STDs) and Reproductive Tract Infections (RTIs) of women in rural areas. Keeping the above mentioned facts in view current study was undertaken to study health care seeking behaviour of ever married women aged between fifteen and forty-five years with special reference to those who had one or more symptoms of sexually transmitted diseases and reproductive tract infections or diseases.

The major objectives of this article are:

1. To study the treatment seeking behaviour of women of reproductive age group (15-45 years) in both rural and urban areas of the District

2. To estimate the cases of STDs/RTIs as per WHO's syndrome case definitions

## MATERIAL AND METHODS

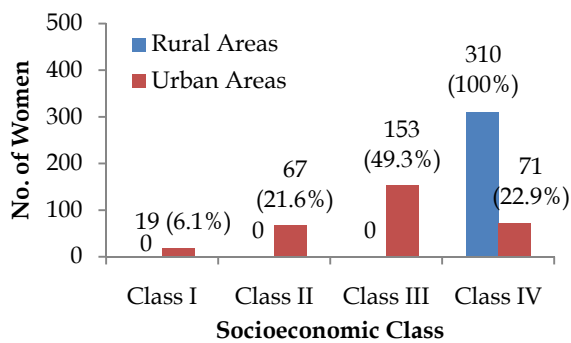
The present study was carried out during May-June 2010 in the urban and the rural areas of Bareilly. The study was a cross sectional study and the two stage cluster sampling technique was adopted to study The Health Care Seeking behaviour of Women of Reproductive Age Group for STDs/RTIs in Bareilly district. Fifteen clusters were from the rural and 15 were from urban areas of Bareilly district to give proportionate allocation to rural and urban population of district. Rural areas of the district were divided into total 15 blocks. These blocks were divided into villages and finally one village was selected as cluster from each block using simple random sampling technique. Finally 15 villages were selected as clusters. Urban areas were divided into 70 wards and 15 wards were selected using simple random sampling technique as clusters. A structured questionnaire was used during the household surveys.

A house to house survey was carried out in the selected clusters till 20 ever married women in the age group of 15-45 years per cluster and 30 ever married women in the age group of 15-45 years in the last cluster in both rural and urban area were interviewed about her Socioeconomic Status, Age at consummation of Marriage, Past and present History of STDs/RTIs (as per WHO's syndrome case definition), about place (name and type of Hospitals) and modality of treatment they had received first time. No medical examination was carried out of these women during survey. The total sample size of 620 women was calculated for study area including 50% from rural and 50% from urban areas and was analyzed finally. The study population contains all ever married women in their reproductive age group (15-45 years) in selected clusters. For cultural and social reasons exclusion criteria were adopted. These were (1) Unmarried Women and girls, (2) Women of age less than 15 years of age, (3) Women >45 years of age (4) All the pregnant and puerperal women. Each interviewed women explained about the objectives of the study and an informal verbal consent was taken before interview. Statistical analysis was done with SPSS for Windows (Release Version 11.5.0) computer software. Chi ( $\chi^2$ ) square test was

applied and p value was calculated to know the significance of results. Modified Prasad's classification was used to assess the socioeconomic status (Agarwal AK 2008)<sup>2</sup> of the families of study subjects.

**RESULTS**

In the present study all women (100%) in rural areas were belonging to poor families whereas in urban areas majority were from middle class (49.35%), followed by poor families (22.9%), and high socioeconomic class (21.61%) upper high socioeconomic class (6.13%) [Figure1]



**Fig 1: Socio-economic Status of the families of Women of Reproductive Age Group in Bareilly District**

In the rural areas age at consummation of marriage was 15-20 years for 70.96% women of

reproductive age group followed by women age less than 15 years (17.74%), above 30 years age 1.61% and in the Urban areas 96.12% women got married during age 15-25 years i.e. during age 15-20 years 56.12% and 21-25 years 40% women got married. Mean age at consummation of Marriage in both areas is 22.5 years [Table1].

**Table 1: Age at consummation of marriage Women of Reproductive Age Group in Bareilly District**

Age Groups	Rural (n=310) (%)	Urban (n=310) (%)
< 15 years	55 (17.74)	0 (0)
15-20 years	220 (70.96)	174 (56.12)
21-25 years	20 (6.45)	124 (40)
26-30 years	10 (3.22)	12 (3.87)
>30 years	5 (1.61)	0 (0)

Chi Square (x<sup>2</sup>) = 140.66, df=4 p<0.001

Out of total 620 women of reproductive age group of both areas of the district 16.29% suffered from STDs/RTIs during period starting from age of marriage to date of survey. Out of total 310 rural women 25.81% suffered form RTIs/STDs whereas only 6.77% suffered in urban areas. And women never had/unaware about RTIs/STDs were 74.19% and 93.23% in respective areas. [Table2]

**Table 2: Status of Women of Reproductive Age Groups (15-45 years) from both Areas regarding RTIs/STDs**

	No. of Women (%)	No. of Women (%)	Chi-square
<b>Women's status regarding RTIs/STDs</b>	<b>Rural N= 310</b>	<b>Urban N=310</b>	x <sup>2</sup> = 41.17, df=1, p<0.001
Women suffered RTIs/STDs	80 (25.81)	21(6.77)	
Women Never had/unaware about RTIs/STDs	230 (74.19)	289 (93.23)	
<b>Place where treatment taken</b>	<b>Rural=80</b>	<b>Urban=21</b>	x <sup>2</sup> = .005, df=2, p=.976
Home	13 (16.25)	3 (14.28)	
Government Hospital	41 (51.25)	11 (52.38)	
Others*	26 (32.5)	7 (33.33)	
<b>Types of Treatment</b>	<b>Rural=80</b>	<b>Urban=21</b>	x <sup>2</sup> =5.13, df=4, p=.274
Allopathic	49 (61.25)	14 (66.67)	
Ayurvedic	18 (22.50)	2 (9.52)	
Homeopathic	3 (3.75)	3 (14.29)	
Unani	8 (10.00)	2 (9.52)	
Others**	2 (2.50)	0 (0.00)	

\* Private Hospital, RMP, Traditional healers & quacks etc \*\*Tantra-Mantra, Jhad-Phunk

As per WHO's syndrome case definition the most common RTI/STDs problems encountered by women of rural areas were Abnormal vaginal discharge (9.43%) and in urban areas was pain in lower abdomen (5.53%). Pain in lower abdomen was also important symptoms in rural areas with 8.49% followed by abnormal vaginal discharge and swelling in the groin (inguinal bubo) was 6.91% whereas episodes of pain in lower abdomen, abnormal vaginal discharge, swelling in the groin (inguinal bubo) were similar with 5.53%, 4.95%, 4.66% respectively in urban areas. [Table3]

**Table 3: Women of Reproductive Age group (15-45 years) by problems encountered RTI/STDs**

Problems as per WHO's syndrome case definition*	Rural (n=318) (%)	Urban (n=343) (%)
Boil/ulcers/Warts around vulva	9 (2.83)	2 (0.58)
Abnormal vaginal discharge	30 (9.43)	17 (4.95)
Pain in lower abdomen	27 (8.49)	19 (5.53)
Swelling in the groin (inguinal bubo)	22 (6.91)	16 (4.66)
No problem	230 (72.32)	289 (84.25)

Chi Square ( $\chi^2$ ) = 2.38, df=4, p=.496 (Excluding No Problem), \*multiple case response (Excluding No Problem)

The important finding in this study is that 83.75% women from of rural area and 85.72% women of urban areas sought institutional health care facilities for their problems and the government health care facilities were the most common place for treatment for the women of both areas (Rural 51.25%, Urban 52.38%). Home management was similar in both the areas with 16.25% and 14.28% in rural and urban areas respectively.[Table2]

Majority (66.67%) of the women in urban areas had sought treatment in Allopathic system of medicine similarity observed among women (61.25%) in rural areas in the district. Followed by Homeopathic (14.29%), Ayurvedic (9.52%) and Unani (9.52%) in urban women whereas Ayurvedic (22.50%) is the second most common modality of treatment followed by Unani (10%) Homeopathic (3.75%) sought by women in rural areas of the district. Others (2.50%) treatment

modes like TANTRA-MANTRA, JHAD-PHOONK were also there in rural areas but these were absent in urban areas. [Table2]

## DISCUSSION

Out of total 620 women of reproductive age group of both areas of the district 16.29% suffered from STDs/RTIs during period starting from at age of marriage to till date of survey in the study areas. Out of total 310, in rural areas 25.81% women suffered form STDs/RTIs whereas only 6.77% suffered in urban areas. And women never had/unaware about STDs/RTIs were 74.19% and 93.23% in respective areas. We have not found any study conducted in any part of the country with as low prevalence of STDs/RTIs in both rural and urban areas as our study but Dissimilar findings were observed in the study of M N Bhandari & B D Kannan <sup>3</sup> (2010) as The prevalence of reproductive morbidity in their study sample was 57%. This dissimilarity could be due to the variation in age group of reproductive age groups of study subjects and area as the study of carried out among Ever Married Women of Slums of Rajkot City, Gujarat. This finding of present study is again dissimilar to previous studies conducted in other parts of India<sup>4,5,6</sup>.

As per WHO's syndrome case definition the most common RTI/STDs problems encountered by women of rural areas were Abnormal vaginal discharge (9.43%) and in urban areas it was pain in lower abdomen (5.53%). Pain in lower abdomen was second important symptom in rural areas in 8.49% women.

Similar findings were observed by Nandan D et al<sup>7</sup> (1997) and it was found that majority of women with RTIs/STDs were having vaginal discharge. Again in another study of Nandan D et al<sup>8</sup> (2007) it was found that commonest symptom of RTIs/STDs was vaginal discharge (94%) followed by lower abdominal pain (55%).

The important finding in the the present study is that 83.75% women from of rural area and 85.72% women of urban areas sought institutional health care facilities for their problems and the government health care facilities were the most common place for treatment for the women of both areas (Rural 51.25%, Urban 52.38%). But in the study carried out by M N Bhandari & B D Kannan<sup>3</sup> during year 2010, 57% of women had at least one reproductive morbidity; of these, only one third



(34%) sought health care. And in the study carried out by Suneela Garg, Meenakshi and M.M.C. Singh<sup>9</sup> in year 2001 it was observed that Out of the 144 women who experienced one or more reproductive health problems only 40 (27.8%) consulted a health facility for treatment. And according to the a study carried out by National AIDS Control Organisation<sup>10</sup> (1999-2000) it was observed that in spite of the availability of low cost and appropriate technologies to manage RTIs and STDs in the primary health care setting most of the sexually transmitted infections remain hidden and unrecorded and a very small proportion of people (5-10%) suffering from the disease attend government health facilities. However the findings observed by NACO<sup>10</sup> (1999-2000) is little different as they had observed that the study subjects included in their study had lesser faith as compared with the present study as in this study the study subjects (Rural 51.25%, Urban 52.38%) have faith in government health facilities like district Hospitals/ CHCs/ PHCs/ SCs as they sought treatments for their problems of STDs/RTIs.

However according to the results observed in the present study home management was similar in both the areas with 16.25% and 14.28% in rural and urban areas respectively and comparatively low as if compared with above mentioned studies and other studies<sup>3,9,10,11,12</sup>.

Majority (66.67%) of the women in urban areas had sought treatment in Allopathic system of medicine similarity observed among women (61.25%) in rural areas in the district. Followed by Homeopathic (14.29%), Ayurvedic (9.52%) and Unani (9.52%) in urban women whereas Ayurvedic (22.50%) is the second most common modality of treatment followed by Unani (10%) Homeopathic (3.75%) and sought by women in rural areas of the district. Others (2.50%) treatment modes like TANTRA-MANTRA, JHAD-PHOONK were also there in rural areas but these were absent in urban areas.

Similar findings like in the present study had observed in a study carried out by the Ministry of Health and Family Welfare and National AIDS Control Organisation<sup>10</sup>(1999-2000), as they observed that Family structure, socio-economic status and literacy status did not significantly affect the health seeking behaviour in their study sample.

## CONCLUSION AND RECOMMENDATION

As in this study majority of study subjects in both the study areas sought treatment from government health care facilities hence here it can be concluded that by increasing number of health care facilities in public sector and by improvement of the qualities of services at District hospitals/CHCs/PHCs/SCs level we can reduce magnitude of cases of RTIs and STDs and further we can decrease prevalence and incidence of HIV/AIDS. For these achievements training of health care workers as per WHO's syndrome case definition at public sector is desired regularly. Preventive strategies for reproductive morbidity and promotion of health education related with STDs/RTIs among the women especially of reproductive age will help in reducing the magnitude of the STDs/RTIs problems in the Bareilly District and subsequently there will be reduction in the HIV/AIDS magnitude in the region.

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## REFERENCES:

1. Combating HIV/AIDS in India, 1999-2000: Govt. of India, Ministry of Health and Family Welfare, National AIDS Control Organisation.
2. Agarwal AK. Social classification: The need to update in the present scenario. *Indian J Community Med* 2008 33;50-51.
3. Bhandari M N & Kannan B D, Untreated reproductive morbidities among ever married women of slums of Rajkot City, Gujarat: The roles of class, distance, provider attitudes, and perceived quality of care. 2010 Mar;87(2):254-63. Accessed on 12<sup>th</sup> June 2011 <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2845825/>
4. Rathore M, Vyas L, Bhardwaj AK. Prevalence of reproductive tract infections amongst ever married women and sociocultural factors associated with it. *J Indian Med Assoc.* 2007;105(2):74-8.
5. Band RA, Bang AT, Batule M, Choudhary Y, Sarmukkada S, Tole O. High prevalence of gynecological diseases in rural Indian women. *Lancet.* 1989;8:85-8.
6. Aggarwal AK, Kumar R, Gupta V, Sharma M. Community based study of reproductive tract infections among ever married women of reproductive age in a rural area of Haryana, India. *J Commun Dis.* 1999;31(4):223-8.

7. Nandan D. Improving Reproductive Health and Family Spacing in the state of Uttar Pradesh: Socio-clinical study of RTI/STD cases, CARE India. 1997. Accessed on 15<sup>th</sup> June 2011 <http://www.indmedica.com/journals.php?journalid=7&issueid=41&articleid=517&action=article>
8. Deoki Nandan, S.K. Misra, Anita Sharma, Manish Jain Estimation of Prevalence of RTI's/STD's Among Women of Reproductive Age Group in District Agra Indian Journal of Community Medicine Vol. 27, No. 3 (2002-07 - 2002-09). Accessed on 15<sup>th</sup> June 2011 <http://www.indmedica.com/journals.php?journalid=7&issueid=41&articleid=517&action=article>
9. Suneela Garg, Meenakshi, M.M.C. Singh and Malti Mehra Perceived Reproductive Morbidity And Health Care Seeking Behaviour Among Women In An Urban Slum Health and Population - Perspectives and Issues 24(4): 178-188, 2001. Accessed on 15<sup>th</sup> June 2011 <http://medind.nic.in/hab/t01/i4/habt01i4p178.pdf>
10. Combating HIV/AIDS in India, 1999-2000: Govt. of India, Ministry of Health and Family Welfare, National AIDS Control Organisation.
11. Go VF, Quan VM, Celentano DD, Moulton LH, Zenilman JM. Prevalence and risk factors for reproductive tract infections among women in rural Vietnam. Southeast Asian J Trop Med Public Health. 2006;37(1):185-189.
12. Prasad JH, Abraham S, Kurz KM, et al. Reproductive tract infections among young married women in Tamil Nadu, India. Int Fam Plann Perspect. 2005;31(2):73-82.