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**REPRODUCTIVE TRACT INFECTION AND TREATMENT SEEKING  
BEHAVIOUR OF THE MARRIED WOMEN OF REPRODUCTIVE  
AGE IN A SLUM OF DHAKA CITY**

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**Abstract**

**Objectives:** To determine the proportion of reproductive tract infection (RTI) among the married women of reproductive age in a slum of Dhaka and to ascertain their treatment seeking behaviour.

**Materials and Methods:** A cross sectional study was carried out among 207 married women of reproductive age (15-49 years). RTI was diagnosed using the 'modified syndromic approach' as suggested by the World Health Organization. Data were collected through face-to-face interview by using a semi-structured questionnaire.

**Place and period of the study:** The study was undertaken from March to June in the year 2003 in the Naderkhan slum of Rayer Bazar area in Dhaka City.

**Results:** The proportion of RTI among the study population was 45.4% and abnormal vaginal discharge was the most frequently encountered symptom. Family size and occupation of the respondents as well as of their husbands had shown significant influence on the occurrence of RTI ( $p < 0.05$ ) while other socio-demographic characteristics failed to show any association. Of the 94 women detected with RTI, only 26.6% of them received any treatment for the same. For vaginal discharge, lower abdominal pain and painful coitus, majority of the respondents sought treatment from traditional healers and for difficulties in urination and vaginal itching majority of them received treatment from a chemist.

**Conclusion:** Although a considerable number of the married women of reproductive age living in the slum suffered from various types of RTIs, only one fourth of them received any sort of treatment, and that also mainly from the traditional healers. Bangladesh being a signatory to the MDG, maternal health is a priority area. Urban slums cannot be overlooked.

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**Key Words:** RTI, slum dwellers, treatment, Dhaka city.

**Introduction**

Reproductive Tract Infection (RTI) have been described as infections of the reproductive or genital tract including - Sexually Transmitted Infections (STIs), endogenous infections (non-sexually acquired infections) and iatrogenic infections associated with medical procedures<sup>1</sup>.

RTIs are being increasingly recognized as a serious global health problem with impact on individual women

and men, their families and communities. They can have severe consequences, including infertility, ectopic pregnancy, chronic pelvic pain, miscarriage, and increased risk of HIV transmission. The World Health Organization (WHO) estimates that each year, over 333 million new cases of curable sexually transmitted infections (STI) occur and most of them take place in developing countries. RTIs that are not sexually transmitted are considered even more common<sup>2</sup>.

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In Bangladesh there is no national prevalence data on RTIs or STIs. However, the limited number of prevalence studies point to an alarming and totally different picture where a high number of women have confirmed infections. A clinic-based study found 60% of women suffering from RTIs, including nearly 4% with gonorrhoea and less than 1% with syphilis<sup>3</sup> while a rural study found 56% of women had RTIs of which 23% were STIs<sup>4</sup>. An earlier study on 3000 women in Matlab thana showed that 22% of the women had symptoms of RTI. When examined, 68% of those women had confirmed evidence of infection<sup>5</sup>. A study by Save the Children (USA) showed that 56% of the rural women had RTI, of whom 67% sought any treatment. Traditional methods or 'Bangla treatment' were selected by most of these women. Infected men sought treatment outside the immediate community, whereas the women placed their faith on the village practitioners<sup>4</sup>.

In this study an attempt was made to determine the proportion of RTIs among the married women of reproductive age in a slum of Dhaka as well as to assess their treatment seeking behavior. As women of reproductive age are the most vulnerable to RTIs, the study was designed to confine it to this group<sup>2</sup>.

### Methods and Materials

The study was undertaken in Naderkhan slum of Dhaka city, in ward no 47 of Dhaka Municipal Corporation. It is about 1 km<sup>2</sup> with a total population of 5000 where the married women were about 980.

A total of 207 married women of reproductive age (15-49 years) who were not menstruating, not pregnant or not in immediate postnatal period (6 weeks after delivery) during the time of interview were identified as the study subjects. Data were collected through a face-to-face interview. The interview was conducted anonymously and privately.

### Results

Of the selected 207 married women of reproductive age (15-49 years), almost all of them were Muslims except one who was a Hindu. A quarter (26.1%) of the respondents was in the 15-19 years age group, which was followed by the age group of 20 to 24 years (20.8%). The mean ( $\pm$  SD) and median age of the

respondents was  $26.09 \pm 8.06$  years and 25 years respectively. About 67% of the respondents were illiterate and 24.6% was found to have some sort of formal education. Among them, only 7.7% had education above primary level. Majority of the respondents were housewives (61.4%) while the rest were maidservants (19.8%), day laborers (13.5%), small business (2.9%) and garment workers (2.4%). Total family members of the respondents ranged from 2 to 12. On average they were living with 4.43 family members and about 75% was from a nuclear family. The overall monthly family income of most of the respondents (46.9%) was up to Tk.3000 and the mean monthly family income was reported as  $Tk.3655 \pm 1219$  with a range from Tk.1200 to Tk.10000.

In these 207 married women, RTI was found in 94 (45.4%) women. These were categorised as: abnormal vaginal discharge (73.4%), lower abdominal pain (44.9%), painful coitus (41.5%), burning sensation during urination (28.7%), itching in genital area (20.2%) and pain during urination (8.5%). The mean duration of abnormal vaginal discharge was  $39.87 \pm 35.15$  months.

Although not significant ( $p > 0.05$ ), a higher proportion (62.5%) of RTI was reported by those respondents who had an education above primary level and also among the respondents (60.0%) whose husbands had a higher level of education. RTI was higher in housewives (52.8%) than those with other occupations ( $p < 0.05$ ). Husbands' occupation was also found to have an influence on the proportion of RTI among the respondents ( $\chi^2_{(3)} = 9.420$ ;  $p < 0.05$ ). Proportion of RTI was lowest among the respondents whose husbands were day laborers (25.7%) and highest among the respondents whose husbands were rickshaw pullers. Although proportion of RTI between the respondents living in nuclear or joint families did not show any difference (46.8 vs. 41.2%), it was found to be significantly higher (51.0% vs. 32.3%) in those who were living in comparatively larger families ( $\geq 4$  members) than those living otherwise ( $p < 0.05$ ; Odds Ratio = 0.457; 95% Confidence Interval (C.I.) = 0.245 - 0.853). Mean family income in the RTI positive and negative cases failed to show any significant difference (Table 1).

**Table-1: RTI and socio-demographic differentials of the respondents**

Characteristics	Presence of RTI		Total (%)	Test statistic
	Yes(%)	No(%)		
<b>Educational status of the respondents</b>				
Illiterate	55 (39.9)	83 (60.1)	138 (66.7)	$\chi^2_{(3)}=5.463$ $p = 0.141$
Non-formal education	10 (55.6)	8 (44.4)	18 (8.7)	
Class 1-5	19 (54.3)	16 (45.7)	35 (16.9)	
Class $\geq 6$	10 (62.5)	6 (37.5)	16 (7.7)	
<b>Main occupation of the respondents</b>				
House wife	67 (52.8)	60 (47.2)	127 (61.4)	$\chi^2_{(3)}=8.607$ $p = 0.035$
Maid servant	12 (29.3)	29 (70.7)	41 (19.8)	
Day laborer	12 (42.9)	16 (57.1)	28 (13.5)	
Others	3 (27.3)	8 (72.7)	11 (5.3)	
<b>Type of family</b>				
Nuclear	73 (46.8)	83 (53.2)	156 (75.4)	$\chi^2_{(1)}=0.486$ $p = 0.256$
Joint	21 (41.2)	30 (58.8)	51 (24.6)	
<b>Family size</b>				
<4	20 (32.3)	42 (67.7)	62 (30)	$\chi^2_{(1)}=0.618$ $p = 0.013$
$\geq 4$	74 (51.0)	71 (49.0)	145 (70)	
<b>Monthly family income (in taka)</b>				
Yes	94	3744.6	$\pm 1331.3$	$t_{(205)}=-.959$ $p = 0.339$
No	113	3581.4	$\pm 1119.5$	

Out of 94 women diagnosed with RTI, nearly two thirds (73.4%) received no treatment. Only 26.6% of women received some sort of treatment. For vaginal discharge, less than half of them (40.6%) received treatment. For the other symptoms of RTI, treatment seeking was far less. Looking at the utilization pattern of different sources of treatment (table 2), for vaginal

discharge, lower abdominal pain and painful coitus, majority of the respondents (35.7%, 45.5% and 87.5% respectively) sought treatment from traditional healers and for difficulties in urination and vaginal itching, majority of them received treatment from a chemist.

## Discussion

'Modified syndromic approach' as suggested by the World Health Organization was used while conducting this study to diagnose RTI. Among the 94 diagnosed cases, abnormal vaginal discharge was the most frequent symptom (73.4%), which is consistent with other study findings<sup>4,5</sup>. The limited number of studies on RTI in Bangladesh also point to a similar alarming picture. A rural study found that 56% of women had RTI<sup>4</sup> while a clinic-based study found 60% of women suffering from RTI<sup>3</sup>. In an earlier study on 3000 women of Matlab thana, 22% of them reported symptoms of RTI. When examined, 68% of those women had confirmed evidence of infection<sup>5</sup>.

In this study only the married women of reproductive age, majority being in the age group of 15 to 19 years were selected. The mean age of the respondents (26.09  $\pm$  8.06 years) made no statistically significant difference between the RTI positive and negative cases. This is similar to a study conducted by Hussain *et al.* in 1996 among the rural women, where also, age didn't show any significant influence<sup>4</sup>.

A larger proportion (not statistically significant) of RTI was found among the higher educational status of the respondents (62.5%) as well as among the respondents (60.0%) whose husbands had higher educational levels. This finding is similar to a study conducted in Bangladesh by Save the Children (USA)

**Table-2: Sources of treatment for different types of RTI symptoms**

Treatment providers	Proportion of respondents received treatment				
	Abnormal Vaginal discharge (n=28)	Difficulties in urination (n=11)	Vaginal itching (n=6)	Lower abdominal pain (n=11)	Painful coitus (n=8)
Qualified Doctor	17.9	-	33.3	9.1	12.5
Homeopath	25.0	9.1	-	-	-
Chemist	17.9	45.5	66.7	27.3	-
Field worker	0.5	18.2	-	18.2	-
Traditional healer	35.7	27.3	-	45.5	87.5

in 1996, which found married women with higher educational levels had the highest proportion of RTI<sup>4</sup>. The mean family income, although not significant, was also found to be higher among the RTI positive cases.

The above two findings in the context of educational status and monthly family income, runs contrary to our assumption that RTI will be more common among the poor socio- economic groups and in those with a lower level of education. No plausible explanation can be put forward but suggest to policy makers that due attention be given to all groups and not remain confined to the lower SES groups as far as mitigation of RTI is concerned. Larger families ( $\geq 4$ ) also contributed to higher RTI thus suggesting that the prevention program of RTI would be more effective if family planning services were incorporated at this point.

The treatment-seeking pattern for RTI was very disappointing. Out of 94 women diagnosed with RTI, nearly three-fourths of them (73.4%) received no treatment. This finding is graver than the finding of Hussain *et al.* in a rural setting, where this proportion was 37%<sup>4</sup>. It suggests that the urban poor (slum dwellers) are worse off with a poorer economy, lack of awareness and lower level of education, all being important factors influencing the treatment-seeking pattern.

Looking at the utilization pattern of different sources of treatment, except for dysuria and vaginal itching, most of the respondents sought treatment from traditional healers for rest of the symptoms of RTI. Several studies also reveal that acceptance of traditional medicine for reproductive health is due to a blind reliance on this<sup>6-10</sup>. This we need to take into consideration because such behaviour leads to patients receiving either inappropriate or insufficient medication.

### Conclusion

The high proportion of RTI among the slum dwellers and their treatment seeking behaviour demands immediate attention for their sensitization to the importance of seeking timely and appropriate clinical care. More research is necessary to investigate the quality of treatment, and if necessary, provide

appropriate training in management of RTI. Although RTI management is provided in public health sector, there seems to be a gap between the need and the services provided.

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