Short Communication

Prevalence and Health-Seeking Behavior of Reproductive Tract Infection/Sexually Transmitted Infections Symptomatics: A Cross-Sectional Study of a Rural Community in the Hooghly District of West Bengal

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Summary

A community-based, descriptive, cross-sectional study was conducted in Purushottampur village of the Singur block, Hooghly, using a pre-tested, semi-structured questionnaire, to find out the prevalence of RTI / STI symptomatics among the general population aged 15 to 49 years, and to assess their profiles and health-seeking behaviors. Prevalence of (Reproductive tract infection) RTI / STI (Sexually transmitted infections) symptoms in the last 12 months was found to be 13.9 and 13.6% among males and females, respectively. The most common symptom was dysuria and vaginal discharge among males and females, respectively. Almost half of the STI symptomatics (52% male, 50% female) did nothing for their symptoms. Better health-seeking behavior was observed among females. About 9.4% of the males and 47% of the females sought advice from the clinic / hospital / health workers. Strengthening of activities of the existing national program among the general population is needed to build a positive health-seeking behavior that will ensure success of the syndromic management of RTI / STI.

Key words: Behavioural surveillance survey, National AIDS Control Program, RTI / STI, Syndromic management

Sexually transmitted infections (STIs) remain a public health problem of major significance in most parts of the world. The incidence of acute STIs is believed to be high in many countries.[1] RTI / STI rank second as a cause of healthy life lost among women in the reproductive age group, in developing countries. As per an STI prevalence study (2003), over 6% of the adult population in the country suffers from STIs.[2] Failure to diagnose and treat STIs at an early stage may result in serious complications and sequelae, including infertility, fetal wastage, ectopic pregnancy, anogenital cancer, and premature death, as well as neonatal and infant infections. The individual and national expenditure on STI care can be substantial.[1]

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The appearance of Human immunodeficiency virus (HIV) and Acquired immune deficiency syndrome (AIDS) has focused greater attention on the control of STIs. World over the epidemiological data shows that since major modes of transmission of HIV / AIDS and STIs are same, those suffering from STIs are at higher risk of contracting the HIV/AIDS virus.[3] Effective management of STIs is one of the cornerstones of STI control, as it prevents the development of complications and sequelae, decreases the spread of those infections in the community, and offers a unique opportunity for targeted education about HIV prevention. The appropriate treatment of STI at the first contact between patients and health care providers is, therefore, an important public health measure.[1] These are the reasons why, in India, prevention, control, and management of the infections get high priority in both Reproductive and Child Health Program (RCH) II and National AIDS

Control Program (NACP) III. These programs aim at the implementation of syndromic management of RTI / STI throughout the country both in the general population and high-risk groups.

The health-seeking behavior of a community reflects their the awareness about disease and the health services available, if they exist at all in the locality, and to some extent satisfaction of the client about the services.[3]

The present study was an attempt to find out the prevalence of RTI / STI symptomatics in a village of West Bengal and to assess their health-seeking behavior.

This community-based, descriptive, cross-sectional study was conducted in a purposively selected village named 'Purushottampur,' of the Singur block, Hooghly district, West Bengal, in the field service area of the Rural Health Unit and Training Center (RHU and TC) under the auspices of the All India Institute of Hygiene and Public Health (AIIH and PH), Kolkata, for one year (May 2006 – April 2007). The Institutional Ethical Committee of AIIH and PH had approved the study. Written Informed Consent was taken from every study participant.

About 50% of the total 1600 population of the village (data available in RHU and TC, Singur, 2006) belonged to the 15 – 49 year age group. The prevalence of genital discharge or genital sores / ulcers or both, in the rural WB Behavioral Surveillance Survey (BSS), 2001, was 3.4% among the 15 – 49 year age group.[3] Taking this prevalence, the estimated sample size (at 95% confidence level and 20% allowable error) was 615. Considering the subject of study, 20% extra was taken for non-response and the final sample size became 738. All households were visited and among 798 persons aged between 15 and 49 years were approached; 744 (399 females and 345 males) who provided informed written consent for interview comprised the study population.

Each study subject was interviewed by separately maintaining confidentiality and anonymity using a pre-designed, pre-tested, semi-structured questionnaire. The questionnaire was developed with the help of a standard schedule for evaluation of the NACP constructed by WHO and adopted by the National AIDS Control (NACO) for BSS.[4,5] The questionnaire was pilot tested in the nearby Nosibpur village and was modified accordingly. Queries were made about a thick yellowish / greenish discharge with foul smell from the penis, any ulcer / sore in penis, and pain / burning while passing urine in last 12 months for males, to find out the prevalence of STI symptomatics among males. Similarly for females, questions were asked about the history of excessive bad smelling, colored vaginal discharge, pruritus vulvi, increased frequency of micturation, lower abdominal pain, and any genital sore in the last 12 months. All respondents who answered in the affirmative were recorded as individuals suffering from RTI / STI. All respondents surveyed comprised the denominator.[5] The age group (15 – 49 years) and the recall period of 12 months was determined according to the NACO and BSS reference.[3] The symptomatic study subjects were referred to Nosibpur Health Center for further clinical examination and treatment. Statistical analysis was done by a simple proportion, using MS-Excel 2007.

About 54% of the participants were female and 46% were male. The highest proportion of both males and females were from the 30 to 34 year age group. The mean ages of males and females were 30.8+10.5 years and 27.1+8.3 years, respectively. Nearly 100% of the village population was Hindu. Most of study population (99.6% of the male and 97% of the female) was literate. The highest proportion (29%) of the male study population worked as agriculture laborers, followed by students (22%). About 5% of the males were goldsmiths, either working in Mumbai or had a history of working there in the recent past at the time of interview. Nearly 3% of the total males worked as drivers and 3% as masons, most of them had to stay outside the village for days or months because of their occupation. The highest proportion of females (60%) were homemakers, followed by students (13%). A majority of (51% of the males and nearly 74% of females) the study population was married at the time of interview.

It was observed that a total 102 subjects (13.7%) reported symptoms suggestive of RTI / STI in the last 12 months, of which 48 (13.9% among males) were male and 54 were female (13.5% among females). The most common STI symptoms among the males were pain during urination (10.7%) with a mean number of episodes of 1.3, followed by discharge from the penis (4.6%) with a mean number of episodes of 2.5. Only two (0.6%) persons complained of genital sores and 4.9% males complained of either genital discharge or sores or both, in the last 12 months. The most common STI symptoms among females were excessive bad smelling or colored discharge (7.5%) followed by pruritus vulvi (5.7%). Only 1% of them

complained of genital sorea and 8% reported either genital discharge or sorea or both, in last 12 months [Table 1].

Most of the symptomatics (56%) belonged to the 30 to 39 year age group. Only three of them (one male, two females) were adolescents. A majority of self-reported STI cases had a middle level of education (44%) and per capita family income (PCI) of > Rs 500 / - (84.3%). Most of the self-reported STI cases were married (93.5%). Nearly 14.6 and 10.4% of the male symptomatics had a history of migration and alcohol consumption in the last 12 months, respectively. Three (6.3%) male symptomatics revealed a history of visit to non–regular sex partners in the last 12 months. Poor condom usage was reported, only 20% of them ever used condoms and 3% used condoms in the last intercourse.

More than half (52%) of the symptomatics adopted no remedial action and this proportion was slightly higher among males than females (52.1 vs. 50%). It was observed that 16% of the male and 3% of the female symptomatics sought advice from a traditional healer. About 47% of the females and 9.4% of the males sought advice from the clinic / hospital / health worker and brought medicine from them. Therefore, it can be said that a much higher proportion of females adopted the scientific approach for symptom alleviation. [Figure 1] About 53% of male symptomatics informed their spouse or regular partner about their symptoms and 69% of them stopped sexual intercourse in order to prevent passing infection to the spouse / regular partner.

Table 1: Distribution of self-reported reproductive tract infection/sexually transmitted infections cases according to the symptoms

RTI/STI Symptoms	Positive Responses No. (%)*
STI symptoms in males (n = 345)	48(13.9)
Pain/burning sensation during urination	37(10.7)
Discharge from penis	16(4.6)
Any sore in the genital area	2(0.6)
Genital discharge or sore or both[3,5]	17(4.9)
STI symptoms in females (n = 399)	54(13.5)
Excessive bad smelling/Colored vaginal discharge	30(7.5)
Puritus vulvi	23(5.7)
Increased frequency of micturation	12(3.0)
Lower abdominal pain	6(1.5)
Any genital sore	4(1.0)
Genital discharge or sore or both[3,5]	32(8.0)

(Multiple responses), *Figures in parentheses indicate %, RTI: Reproductive tract infection, STI: Sexually transmitted infections

Comparing the study results with that of the BSS (2006) of rural India and the rural West Bengal groups, in which similar type of study instruments were used, the following observations were made. The proportion of respondents reporting genital discharge or genital sores / ulcers or both, in the last 12 months, was found to be higher in the present study (4.9% in males and 8% in females) than in the WB figure in BSS 2006 (3.3% in males and 3% in females); and unlike the WB results, females had a higher prevalence than males**.** Similar to the BSS findings, prevalence of self-reported genital ulcers was found to be much lower than genital discharge in both sexes, in the current study. However, the proportion of respondents with genital ulcers was much lower (0.7%) in the current study than in WB (2.3%) and India (2.8%).

A study conducted in the district of Agra by Nandan *et al.,* showed the prevalence among rural women to be 49%, much higher than that in the present study (13.5%).[6] In another study in the rural community of Goa (2002), the prevalence of RTI was overall 5.4% (Male: 2%, Female: 8.7%).[7] Thakur *et al*., in rural Chandigarh (2002) found the prevalence of 17.7% among females and 1.2% among males.[8] Latha *et al.,* (1997), in a multicentric study in rural WB, Gujarat, urban Baroda, and Mumbai, reported the prevalence of RTI, ranging from 19 – 71%.[9] In another study, the prevalence of RTI among women in the reproductive age group, in Simla town, was found to be 36.3%, higher than the present study results.[10] However, unlike the present study, clinical examination and per speculum were done in the above-mentioned study. In most of the above-mentioned studies, the most commont symptom of STD among women was vaginal discharge, which corroborates with the present study findings.[6-10]

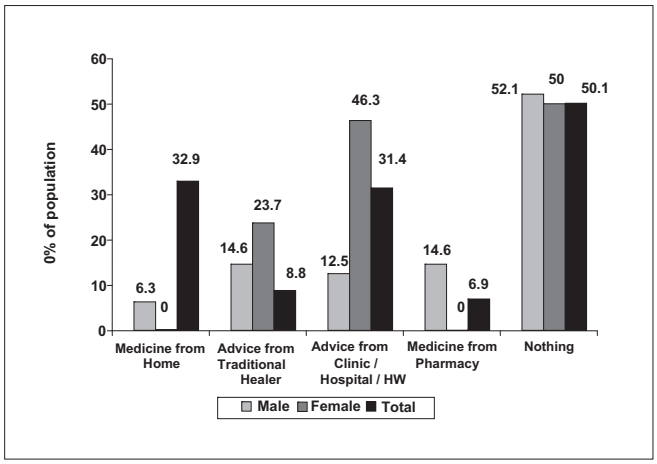

Figure 1: Health seeking behaviour for probable RTI/STI symptoms in last 12 Months

In the present study, nearly 50% (47.5% male and 50% female) STI symptomatics sought treatment from any health care provider, which was lower than the national (55.6 and 54.1%) and state (84.4 and 45.1%) figures of BSS. However, RTI / STI symptomatics seeking treatment from Government hospitals / clinics / health workers were higher in the present study (12.6 and 46.3%) than the BSS figure in the WB group (23.7 and 10.5%). Contrary to the BSS figures, health-seeking behavior was slightly better in females than males. The most important finding was that a much higher proportion of female symptomatics (46.3%) went to the Government facilities in comparison to their male counterparts (12.5%), the difference being much higher than BSS, 2006. The reasons behind better health-seeking behavior among women may be multiple, like higher female literacy rate than other typical rural areas of West Bengal, regular contact with women from nearby Nosibpur subcenter for MCH-related services, and regular visits of Postgraduate Trainees of AIIHPH in the area for research and service works.

In the present study the results were interpreted with great caution, as they were based on self-reporting by respondents and long recall period of 12 months (although taken as per BSS guidelines). As the questionnaire probing dealt with very personal and sensitive aspects of one individual, the possibility of conscious falsification on sensitive issues could not be ruled out despite sincere efforts of the researchers.

The study concludes that the overall self-reporting of RTI/STI symptoms was found to be somewhat higher than the state averages; the health-seeking behavior was poorer, especially among the male sub-population of the village.

An organized and systematic Information, Education, and Communication (IEC) campaign among the general population at the village level, to build a positive health-seeking behavior for RTI/STIs among the general population, is necessary to ensure the success of the syndromic management of RTI/STI.

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