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Original Research Article

Treatment-Seeking Behaviour and Healthcare Provider Preference among Married Women with Symptoms of Reproductive Tract Infections in a Rural Area of Bihar: A Secondary Analysis

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Conflict of interest: Nil

Abstract

Background: Reproductive tract infections (RTIs) are a significant public health concern among women of reproductive age, especially rural women, where awareness, hygiene practices and access to health services are not adequate. Untreated RTI can cause infertility, chronic pelvic pain, pregnancy complications, and decreased quality of life. Understanding treatment-seeking behaviour and the preference of healthcare providers is crucial to improving reproductive health outcomes.

Methods: This study is a community-based cross-sectional study in the rural field practice area of Primary Health Centre, Kalyanpur, under the department of community medicine, Darbhanga Medical College and Hospital, Bihar. The study was conducted from January 2021 to December 2022 with 510 married women of the reproductive age group (15-49 years). A semi-structured questionnaire related to the RTI symptoms was used to collect data. The data were analyzed statistically using SPSS version 20.

Results: Overall, the prevalence of symptoms suggestive of RTIs was 35.49% (181/510). Itching in the genital area (32.94%), lower abdominal pain (31.96%), and abnormal vaginal discharge (30.78%) were the most frequently reported symptoms. Among symptomatic women, 58.01% sought treatment, and 41.99% did not seek treatment. The most preferred health care providers were government doctors (74.28%), followed by private doctors (19.04%). There were significant relationships noted among age, marital status, education, and socioeconomic class with the prevalence of RTI.

Conclusion: RTIs are prevalent among rural women and sub-optimal treatment-seeking despite preference for public health care services. It is crucial to raise awareness, early detection, and the availability of reproductive health services.

Keywords: Healthcare Provider Preference, Reproductive Tract Infections, Rural Women, Treatment-Seeking Behaviour, Women's Health.

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Introduction

Reproductive tract infections (RTIs) are a significant public health issue in women of reproductive age, especially in low- and middle-income countries [1]. RTIs are infections involving the reproductive tract that are caused by the overgrowth of microorganisms, sexually transmitted pathogens or medical interventions [2].

Biological vulnerability, poor menstrual hygiene, limited awareness, and poor access to health services contribute to the high prevalence of RTIs among women [3]. RTIs are an important aspect of women's health in India that is often neglected. Many women experience symptoms suggestive of RTI, including abnormal vaginal discharge, lower abdominal pain, genital itching, painful urination, and genital ulcers [4]. Poor sanitation, low literacy, early marriage, repeated pregnancies, and limited knowledge about reproductive health are among the factors that tend to be greater in rural areas, affecting the prevalence [5,6].

Although the burden is high, RTIs are often underreported because many women normalize symptoms or hesitate to discuss reproductive health problems due to stigma and embarrassment [7].

Untreated RTIs can have potentially severe complications. Pelvic inflammatory disease can develop, resulting in infertility, chronic pelvic pain, ectopic pregnancy, adverse pregnancy outcomes, spontaneous abortion and a greater risk of Human Immunodeficiency Virus (HIV) infection [8,9]. Thus, early diagnosis and timely treatment are essential to avoid complications and lessen the burden of disease.

The behaviour of seeking treatment is important in the effective management of RTIs [10,11]. Regular consultation with qualified health workers can help to diagnose and treat people early, which can prevent the disease from advancing and spreading further [12]. But women's utilization of treatment in rural areas is still suboptimal. Many women do not seek medical care until symptoms are serious. Others self-medicate, use traditional remedies, or seek informal healthcare providers.

Women are hesitant to openly discuss their symptoms due to social stigma linked to reproductive issues. Access to care is also limited by the lack of privacy in health care settings, the lack of female health care providers, financial dependency, poor transportation facilities, and a lack of autonomy in decisions. In addition, poor knowledge about symptoms, complications and treatment options leads to poor utilisation of health services.

Treatment outcomes are also influenced by the preference of the healthcare provider. Women may choose between government facilities, private practitioners, chemists, or alternative medicine systems, depending on their access, affordability, perceived quality of care, and family influence. To enhance reproductive services and responsiveness of health systems, it is important to understand provider preferences.

While a few studies have evaluated the prevalence and determinants of RTIs, there is a lack of evidence on treatment-seeking patterns and provider preference among rural women of Bihar.

The Department of Community Medicine, Darbhanga Medical College and Hospital has unique socio-cultural and health access needs of the rural field practice area.

Objectives

- To estimate the prevalence of symptoms suggestive of reproductive tract infections among married women of reproductive age group in the rural field practice area under the Department of Community Medicine, Darbhanga Medical College.
- To assess the treatment-seeking behaviour among women with symptoms suggestive of reproductive tract infections.
- To determine the healthcare provider preference among women seeking treatment for symptoms suggestive of reproductive tract infections.

Materials and Methods

Study Design: The present study is a community based cross-sectional study which was carried out among reproductive age group married women in a field practice area in the rural community of Darbhanga Medical College and Hospital, Darbhanga, Bihar. The study was initially conducted to estimate the prevalence of RTIs, identify associated factors and determine treatment-seeking behaviour among women presenting with symptoms suggestive of RTIs.

Study Setting: The study was carried out in the field practice area of the Primary Health Centre (PHC), Kalyanpur, under the support of the Department of Community Medicine, Darbhanga Medical College and Hospital, Bihar, India, an area in a rural setting. The area has several villages that are provided with routine public health services and community outreach. The majority of households in the area are rural, and the socioeconomic and educational status of the population varies.

Study Duration: This study took place for two years, from January 2021 to December 2022. Secondary analysis of the collected dataset was performed subsequently for the present manuscript.

Study Population and Sample Size: The study population was married women aged 15-49 years living in the rural field practice area permanently. The sample size was determined accounting for the prevalence of RTIs reported in previous literature of 21% and a 95% confidence interval and an allowable error of 25% of the prevalence. The design effect was considered to be 2, for cluster sampling, and 10% non-response rate, the final sample size was estimated to be 512 and rounded to 510.

Inclusion Criteria

- Married women within the age group 15-49 years.
- Individuals who are permanent residents of the area studied.
- **Exclusion Criteria**
- Women are unwilling to participate.
- Women who were critically ill at data collection time.

Sampling Technique: The participants were selected using a cluster sampling technique. A cluster of 30 villages was randomly picked out of 123 villages under PHC Kalyanpur. To meet the requirement for a sample size of 510 women, 17 women were selected from each cluster. Accredited Social Health Activists (ASHAs) and local health workers supported the house-to-house visits.

Data Collection Tool and Procedure: A pretested semi-structured interview schedule was used in the local language for data collection. The questionnaire consisted of socio-demographic data, obstetric history, menstrual hygiene practices, symptoms suggestive of RTIs, awareness about RTIs and treatment seeking behaviour.

Symptoms of RTI were diagnosed by the World Health Organization syndromic approach including symptoms of abnormal vaginal discharge, lower abdominal pain, genital ulcer, dysuria, genital itching, and inguinal swelling.

Statistical Analysis: The data were entered in the Microsoft Excel program and analysed with the help of the SPSS version 20. Frequencies, percentages and proportions were computed. The association between the prevalence of RTI and selected variables was tested using the chi-square test. A p value of < 0.05 was deemed as statistically significant.

Ethical Approval: Ethical clearance was given by the Institutional Ethics Committee of Darbhanga Medical College and Hospital before the study was conducted. Consent to participate in the study was obtained by written informed consent of all participants, and confidentiality of data collected was respected throughout the study.

Results

The total number of women who participated in the study was 510 married women of reproductive age.

Table 1: Demographic profile of participants (n=510)

Variable	Category	Frequency	Percentage (%)
Age	18–20 years	33	6.47
	21–25 years	76	14.90
	26–30 years	131	25.68
	31–35 years	126	24.70
	36–40 years	89	17.45
	41–45 years	28	5.49
	46–50 years	27	5.29
Religion	Hindu	392	76.86
	Muslim	118	23.14
Education	Illiterate	49	9.57
	Primary school	258	50.39
	Middle school	84	16.40
	High school	67	13.08
	Graduate	52	9.96
Occupation	Working	86	16.79
	Not working	424	83.21
Socioeconomic class	Class I	36	7.05
	Class II	97	19.01
	Class III	186	36.47
	Class IV	85	16.66
	Class V	106	20.78
Marital status	Living with husband	403	79.01
	Widowed	82	16.07
	Separated or divorced	25	4.92
Age at marriage	Less than 18 years	242	47.26
	18 years and above	268	52.34

Most participants belonged to the age group of 26–30 years (25.68%), followed by 31–35 years (24.70%). The majority were Hindus (76.86%), had a primary level of education (50.39%), were not working (83.21%) and belonged to socioeconomic Class III (36.47%).

Table 2 Distribution of RTI symptoms among participants (n=510)

Symptom	Frequency	Percentage (%)
Abnormal vaginal discharge	157	30.78
Genital ulcer	29	6.29
Lower abdominal pain	163	31.96
Lower backache	71	13.92
Dysuria (pain during urination)	80	15.68
Any associated itching	168	32.94
Swelling in groin	9	1.76

The most frequently reported symptom was a genital itching (32.94 %), followed by lower abdominal pain (31.96 %) and followed by abnormal vaginal discharge (30.78 %). The least commonly reported symptom (1.76%) was swelling in groin.

Table 3 Overall prevalence of RTI symptoms (n=510)

RTI status	Frequency	Percentage (%)
Symptomatic for RTI	181	35.49
No RTI symptoms	329	64.51

Based on the WHO syndromic approach, 35.49% of the study participants were found to have reproductive tract infections by reporting two or more symptoms suggestive of RTIs.

Table 4 Treatment-seeking behaviour among symptomatic women (n=181)

Treatment sought	Frequency	Percentage (%)
Yes	105	58.01
No	78	41.99

Despite women having symptoms of RTI, 58.01% of them sought treatment while the remaining 41.99% did not seek treatment, indicating suboptimal healthcare-seeking behaviour.

Table 5 Healthcare provider preference among women who sought treatment (n=105)

Provider consulted	Frequency	Percentage (%)
Government doctor	78	74.28
Private doctor	20	19.04
Chemist	3	2.85
Ayurveda	2	1.90
Homeopathy	2	1.90

The most preferred source of treatment was provided by the government healthcare provider (74.28%) followed by private doctor (19.04%). Very few women were treated by chemists, ayurveda or homeopathy practitioners.

Table 6 Association between selected variables and RTI prevalence

Variable	Chi-square	p-value	Significance
Age	42.659	<0.05	Significant
Marital status	16.12	0.0003	Significant
Education	39.43	0.0001	significant
Socioeconomic class	76.031	0.000	significant
Religion	0.00071	0.9787	Not significant
Occupation	1.029	0.3103	Not significant
Age at marriage	2.536	0.1113	Not significant

A significant association was observed between RTI prevalence and factors such as age, marital status, education, and socioeconomic status. Higher prevalence was reported among women aged 31–35 years, illiterate or less educated women, and those belonging to lower socioeconomic groups. Religion, age at marriage and occupation were found not significant. Overall, the symptoms of RTI were found among married women in the study area and treatment seeking was inadequate although the availability of healthcare services. Among those who sought care, the primary treatment was in the public healthcare facilities.

Discussion

The present study assessed the treatment seeking behaviour and preference of health care provider among married women of reproductive age group with symptoms suggestive of RTIs in a field practice area in a rural area of the Department of Community Medicine, Darbhanga Medical College and Hospital, Bihar. The overall prevalence of symptoms suggestive of RTIs was determined at 35.49%, indicating that more than one-third of the participants reported symptoms suggestive of RTIs. The most frequently reported symptoms were itching in the genitals, abdominal pain in the lower part and abnormal vaginal discharge. Only 58.01% of symptomatic women received treatment, a significant number of women did not seek any healthcare. Among the women seeking treatment, the government doctors were the most preferred health care providers.

Comparison with Previous Studies: The prevalence in the present study is similar to previous studies in India limited to rural areas. [13] found that the prevalence of RTI among reproductive age women was considerably high, indicating that RTI is a major public health problem in rural parts of India. The most frequent symptoms reported were vaginal discharge and lower abdominal pain [14].

Research conducted in rural Maharashtra and Karnataka has shown that many women with RTI symptoms do not receive treatment, which is mainly attributed to the social cultural, and financial constraints [15].

Treatments-Seeking Trends: While over half of women with symptoms used treatment, the rate is still low, especially when taking into account the possible complications that could result from the lack of treatment of RTIs. It is notable that 41.99% of the symptomatic women did not seek health care which indicates that a significant number of women do not seek care in a timely manner. This can result in chronic reproductive morbidity and infection.

Vaginal discharge or itching may be seen as normal, physiological events or as temporary discomfort and ignored by women. Treatment seeking delay could also be due to insufficient knowledge about the consequences of not seeking treatment.

Explanation of Provider Preference: The most preferred healthcare provider was government doctors with 74.28% of the beneficiaries' seeking treatment. This preference could be explained by the cost of services, the availability of subsidized medicines and the accessibility of public health care providers in the rural study area. Trust is also established through maternal and child health services and outreach programs, which are also beneficial to government institutions. The second most popular option was private practitioners, which may be due to less waiting times, perceived confidentiality and the flexibility of appointment hours.

Public Health Implications and Barriers to Care: The results highlight the importance of enhancing reproductive health education and early treatment seeking attitude among women in rural areas. The emphasis for community-based education programs should be focus on the signs and symptoms of RTI, the complications it can cause, and the availability of treatment services.

Some of the challenges to healthcare utilization are embarrassment, stigma of reproductive complaints, fewer healthcare providers for women, transportation, financial dependence and decreased autonomy in healthcare decision-making.

Study Limitations: As this study was based on secondary analysis of cross-sectional data, temporal associations could not be established. A symptom-based syndromic approach to determine RTI status may have resulted in misclassification. Symptoms are also subject to social stigma and underreporting and are self-reported. In spite of these constraints, the study offers valuable insights into the burden of RTI and healthcare-seeking among rural women in Bihar.

Conclusion

The present study reveals that RTI are still a major public health problem in the married women group of reproductive age in the rural field practice area under the community medicine department of Darbhanga Medical College and Hospital, Bihar. The overall prevalence of symptoms suggestive of RTIs was 35.49%, and it is a significant burden of reproductive morbidity among rural women. Symptoms mentioned were lower abdominal pain, vaginal discharge, and itching in the genital area.

High treatment seeking was found among women with symptoms (as more than half sought treatment), but a significant proportion of these women did not seek any medical attention, indicating poor treatment-seeking behavior.

Poor access to health care services can lead to complications like chronic pelvic pain, infertility, pelvic inflammatory disease, and negative reproductive outcomes. Thus, early diagnosis and prompt management of RTIs are crucial for better reproductive health of women and to avoid any sequelae of the infection.

Strengthening rural reproductive health services, increasing awareness of the symptoms of RTI, decreasing stigma, and increasing the availability of female-friendly health facilities are suggested to improve the service utilization for reproductive health care and early treatment-seeking behavior among rural women.

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