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Study Of Distribution Of Reproductive Tract Infections (RTI) Among The Women Of Reproductive Age Group, Visiting Obstetrics and Gynecology OPD At DVVPPF's Medical College, Ahmednagar, Maharashtra, India.

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ABSTRACT

The health care system in underdeveloped nations is heavily burdened by sexually transmitted diseases (STDs) and reproductive tract infections (RTIs). RTI result in various catastrophic complications. Aims and objectives is that to discuss socio-demographic characteristics associated with genital infections in females in the reproductive age group who visit the Obstetrics and Gynecology OPD at DVVPPF's Medical College, Ahmednagar and to identify the risk factors for reproductive tract infections in females who are in the reproductive age group and who are visiting the Obstetrics and Gynecology OPD at DVVPPF's Medical College, Ahmednagar. From 1 January 2021 to 1 March 2022, a observational cross-sectional study was carried out in the Obstetrics and Gynecology Outpatient Department of DVVPPF's Medical College, Ahmednagar. All symptomatic women were advised for examination and investigations as well as offered syndromic treatment after data on characteristics like age, sex, religion, marital status, and occupation were gathered. Monitoring is carried out to evaluate the effects of syndromic therapy. Between January 1, 2021, and March 1, 2022, out of 150 women surveyed, the majority were married 88(58.66%), Hindu 83(55.33%), non-tribal population 92(61.33%) , housewives 51(34.00%), daily wage earners 32(21.33%), and aged 26 to 35 years old 75(50%) .The majority of them fall into classes IV and V of the Revised Prasad categorization for 2021, which is lower SEC. Increased prevalence of RTI was seen in women not using any contraception 37(24.66%) and women who have undergone sterilization 34(22.66%). RTIs that were identified through laboratory testing included vaginal candidiasis 54 (36%), pelvic inflammatory disease 33 (22%), syphilis 22 (14.66%), and chlamydial infection 13 (8.66%). In our study increased amount of RTI was found in patients who had single sexual partner. Reproductive tract infections were far more common in women of 26-35 yrs, who are married and most commonly seen in housewives. Candidiasis carries the maximum burden of disease. As tribal and rural women of lower socioeconomic class were found to be contributing maximum case load of RTI, there is an increased need for awareness regarding health seeking behavior, and healthy menstrual practices as well as appropriate hygiene. In our study lack of use of contraceptives was found to be a major risk factor in RTI.

Keywords: Reproductive tract infections , Candidiasis, tribal women

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INTRODUCTION

The health care system in underdeveloped nations is heavily burdened by sexually transmitted diseases (STDs) and reproductive tract infections (RTIs) [1]. RTI can lead to a number of fatal ramifications. The most prevalent treatable STIs are trichomoniasis, gonorrhoea, syphilis, and chlamydia. The impact of STDs on the public health system is substantial, and STDs themselves accelerate HIV transmission [2]. Women in South East Asian Region (SEAR) nations are at risk for reproductive tract infections, which is a worldwide health issue. In India, Bangladesh, Egypt, and Kenya, the prevalence of RTI is estimated to be between 52% and 90%. Approximately 10 lakh women and children die each year as a result of RTI and its consequences [3]. The origin of Reproductive tract infections (RTIs) is mainly via normal commensal organisms of reproductive tract, aka endogenous or transmitted sexually, aka sexually transmitted infections (STIs) or during medical examination, known as iatrogenic [4]. In research performed across the country, studies of Indian women indicated that the prevalence of RTI symptoms ranged from 11 to 18% [5, 6] and from 40 to 57% [7-9], while the occurrence of RTIs as determined by a laboratory has ranged from 28% to 38% [10, 11]. In Indian community-based studies, the range of self-reported morbidity has been reported to vary from 39– 84%. [12,13] Indian studies are mostly based on OPD based examination of patient rather than the laboratory testing [14]. Females in majority of the underdeveloped parts of India, have low level of awareness regarding RTIs. This research is intended to highlight the incidence & prevalence of various RTI variants linked to various socioeconomic conditions.

Aims and Objectives

- To discuss socio-demographic characteristics associated with genital infection in females in the reproductive age group who visit the Obstetrics and Gynecology OPD at DVVPF's Medical College, Ahmednagar.
- To identify the risk factors for reproductive tract infections in females who are in the reproductive age group and who are visiting the Obstetrics and Gynecology OPD at DVVPF's Medical College, Ahmednagar.

MATERIALS AND METHODS

In this study, which took place between January 1, 2021, and March 1, 2022, women in the reproductive age range of 15 to 45 years old who visited the Obstetrics & Gynecology Outpatient department of DVVPF were evaluated for the manifestation of various RTIs. The sample size was determined by taking into account all women between the ages of 15 and 45 who visited the OBGY OPD of the DVVPF between January 1 and March 1, 2021. The Ethical Committee of DVVPF's Medical College & Hospital, Ahmednagar approved the study. The postpartum and pregnant ladies are not included. Data was gathered using a questionnaire that had been evaluated beforehand. MS Excel was used to create the template. Software called SPSS was used for the statistical analysis. The syndromic approach as recommended by the Ministry of Health and Family Welfare, GOI, for the management of RTIs/STDs was considered for the complaints related to women such as vaginal discharge, genital ulcer disease, lower abdominal pain, and inguinal bubo. The diagnosis and treatment of these patients was strictly based on the National AIDS Control Organization's recommended case definitions for these disorders. All symptomatic and asymptomatic women were counselled for examination and investigations as well as given syndromic treatment. The necessary confidentiality precautions were taken during the question-and-answer session of each woman regarding her socio-demographic and reproductive history, present and past symptoms affecting the reproductive tract, and past sexual behavior, etc. Patients were monitored to gauge the effectiveness of the therapy.

RESULTS

Between January 1, 2021, and March 1, 2022, out of 150 women surveyed, the majority were married 88(58.66%) [Table 4], Hindu 83(55.33%) [Table-2], non-tribal population 92(61.33%) [Table-3], housewives 51(34.00%)[Table-5], daily wage earners 32(21.33%)[Table-5], and aged 26 to 35 years old 75(50%) [Table 1]. The majority of them fall into classes IV and V of the Revised Prasad categorization for 2021, which is lower Socioeconomic class [Table-6]. Increased prevalence of RTI was seen in women not using any contraception 37(24.66%) and women who have undergone sterilization 34(22.66%) [Table-8]. RTIs that were identified through laboratory testing included vaginal candidiasis 54 (36%), pelvic

inflammatory disease 33 (22%), syphilis 22 (14.66%), and chlamydial infection 13 (8.66%) [Table-7]. In our study increased amount of RTI was found in patients who had single sexual partner [Table-9].

Table 1: Age distribution of RTI

Age	Number of participants
15-25 yrs	21(14%)
26-35 yrs	75(50%)
36-45 yrs	54(36%)
Total	150

Table 2: RTI in various religion

Religion	Number of participants
Hindu	83(55.33%)
Muslim	27(18.00%)
Christian	18(12.00%)
Others	22(14.66%)
Total	150

Table 3: RTI in various ethnicities

Ethnicity	Number of participants
Tribal	58(38.66%)
Non-Tribal	92(61.33%)
Total	150

Table 4: RTI according to marital status

Marital Status	Number of participants
Unmarried	16(10.6%)
Married	88(58.66%)
Divorced	30(20%)
Widow	16(10.66%)
Total	150

Table 5: RTI distribution according to occupation

Occupation	Number of participants
Service	31(20.66%)
Business	21(14.00%)
Daily Wage Earner	32(21.33%)
Housewife	51(34.00%)
Student	11(7.33%)
Other	0 (0%)
Total	150

Table 6: RTIs in different socio-economic class.

Socio Economic Class	Number (%)
I	9(6%)
II	15 (10%)
III	25 (16.66%)
IV	56 (37.33%)
V	45 (30%)
Total	150

Revised B.G. Prasad's classification for 2021

Table 7: Types of RTIs

Disease Diagnosed	Study Population (%)
Hiv	9 (6%)
Candidiasis	54 (36%)
Chlamydia	13 (8.66%)
Syphilis	22 (14.66%)
Gonorrhea	13 (8.66%)
LGV	6 (4%)
Pelvic Inflammatory Disease	33 (22%)

Table 8: RTI distribution according to method of contraception.

Contraceptive method	Number of participants
Barrier	24(16.00%)
OCP	25(16.66%)
IUCD (intrauterine contraceptive devices)	30(20%)
Sterilization	34(22.66%)
None	37(24.66%)
Total	150

Table 9: RTI distribution according to no. of sexual partners.

No of sexual partners	Number (%)
None	41(27.33%)
One	98(65.33%)
More than one	11(7.33%)

DISCUSSION

This study reveals that the maximum occurrence of RTI was found in married and Hindu women, this was comparable to study conducted by V. Patel et al [11]. The prevalence of RTIs was 33.3%; this high prevalence is brought on by a lack of knowledge and the difficulty in accessing healthcare services in this region. Bacterial vaginosis (62%), candidiasis (34%), trichomoniasis (13.98%), and syphilis (10.5%) were all shown to be quite prevalent in a study of rural Indian women conducted by Bang RA et al [15]. In our study, candidiasis (36%) was found predominantly. In a rural part of the Agra district, in a study by Nandan D et al, RTIs/STD prevalence was determined to be 49%. (U.P.) and 70% in a rural area of Haryana [16]. As compared to this, low prevalence was observed in studies done by Palai P et al and Thakur JS et al, in Chandigarh's rural and slum areas (21.6%, 17.7%) [17, 18]. In our study, the case load of RTI/STI was highest in women between the ages of 26 and 35 (a time when sexual and reproductive activity is at its peak). In a study conducted in Agra, a comparable trend was found in this age range [16]. Men and women are becoming more aware of RTIs and STDs, according to a study on community-level health education programmers, and their attendance at clinics has increased by eight times [19]. Increased prevalence of RTI was seen in women not using any contraception 37(24.66%) and women who have undergone sterilization 34(22.66%) which was comparable to study conducted by Sharma S et al [20]. In a study conducted by Jindal et al [21], maximum number of patients were belonging to lower socioeconomic class, which was comparable to our study. Due to the syndromic strategy used in this study, a heavy patient load was identified, and due to the high risk for HIV/AIDS transmission, appropriate actions ought to be taken for these individuals. Additional research is required to evaluate the numerous behavioral and sociodemographic characteristics that incline these women towards the risk of RTIs and STDs.

CONCLUSION

Reproductive tract infections were far more common in women of 26-35 yrs, who are married and most commonly seen in housewives. Candidiasis carries the maximum burden. As tribal and rural women of lower socioeconomic class were found to be contributing maximum case load of RTI, there is an increased need for awareness regarding health seeking behavior, and healthy menstrual practices as well

as appropriate hygiene. In our study lack of use of contraceptives was found to be a major risk factor in RTI.

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