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Cross-Sectional Study to Assess the Awareness about Reproductive Tract Infections (RTIs) among Women of Reproductive Age Group in Himachal Pradesh

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Abstract: Background: Reproductive tract infections (RTIs) are a significant health concern for females in India. Despite their prevalence, there remains a significant lack of awareness and understanding about RTIs among the general public in India. Therefore, the present study aimed to describe the awareness about Reproductive tract infections among women of reproductive age group in Himachal Pradesh. **Material and Methods:** Between January 2023 and March 2023, a cross-sectional survey of women in Himachal Pradesh who are of childbearing age was conducted using a Google form. The Google form was sent throughout the state to women of reproductive age in both rural and urban areas for responses via email and social media platforms such Whatsapp groups, Facebook, Instagram, and Linkedin up until 400 responses were received. We gathered information about their socio-demographic characteristics and knowledge of reproductive tract infections. The required statistical tests were performed on the data using the Epi info v7 programme. **Results:** A total of 400 respondents including 165 (41.25%) were from urban area and 235(58.75%) were from rural area were participated in the study. In the present study 16.25% (65) participants had very good knowledge (16-20 marks) towards Reproductive tract infections, 27.0% (108) had good knowledge (12-15 marks), 33.75% (135) had fair knowledge (8-11 marks) and 23.0% (92) having poor knowledge (<8 marks). **Conclusion:** In conclusion, many women are still unaware of the risks and consequences of these infections. It is crucial to improve awareness and education about the prevention, diagnosis, and treatment of reproductive tract infections among females in India.

Keywords: Awareness, Reproductive tract infections, women of reproductive age group, Himachal Pradesh

INTRODUCTION

Reproductive tract infections (RTIs) are a significant health concern for females in India. RTIs are caused by bacterial, viral, or fungal infections that affect the reproductive organs, including the vagina, cervix, uterus, fallopian tubes, and ovaries. Despite their prevalence, there remains a significant lack of awareness and understanding about RTIs among the general public in India. This can lead to delayed diagnosis and treatment, which can have serious health consequences [1-3].

One of the main reasons for the lack of awareness about RTIs in India is cultural taboos surrounding sexual health and reproductive issues. Sexuality is often considered a taboo topic in India, which can make it difficult for individuals to discuss symptoms or seek medical care. Additionally, there may be a lack of access to comprehensive sex education and resources, which can make it difficult to understand the causes and risk factors for RTIs [4-6].

In addition, limited access to healthcare services and resources can also contribute to the lack of awareness about RTIs. Many individuals in India may not have access to healthcare providers with specialized training in reproductive health, or may face barriers to accessing healthcare due to economic or geographic factors [5-7].

However, there are steps that can be taken to increase awareness about RTIs among females in India. This can include promoting open and honest dialogue about sexual health and reproductive issues, increasing access to comprehensive sex education and resources, and improving access to healthcare services and providers with specialized training in reproductive health [8,9].

Overall, increasing awareness about RTIs among females in India is crucial for improving the health and well-being of individuals and communities. By reducing stigma and promoting education and resources, we can

help to ensure that everyone has access to the care and support they need to prevent and treat RTIs, and ultimately improve their reproductive and overall health [9-11].

Numerous researches have been conducted on Reproductive tract infections in various regions of India, but very few of these studies have been conducted in the state of Himachal Pradesh. Therefore, the aim of this study was to investigate the extent to which women in the state were aware of Reproductive tract infections.

Objectives of the Study

To evaluate the awareness about Reproductive tract infections among women of reproductive age group in Himachal Pradesh.

Research Methodology

- Research Approach: Descriptive
- Research Design: Cross-sectional survey design
- Study Area: Whole state of Himachal Pradesh
- Study duration: between January 2023 to March 2023

Study Population

All women of reproductive age group who were staying in the Himachal Pradesh for 12 months or more.

Sample Size

400 women of reproductive age group assuming 50% have adequate knowledge regarding Reproductive tract infections, 5% absolute error, 95% confidence level, and 5% non-response rate.

Study Tool

A google form questionnaire consisting of questions regarding socio-demography and Reproductive tract infections was created. The questionnaire was initially pre-tested on a small number of women of reproductive age group to identify any difficulty in understanding by the respondents.

Description of Tool

Demographic data survey instrument

The demographic form elicited information on participants' background: age, marital status, religion, employment, education and many more.

Questionnaire

The questionnaire contains 20 structured questions regarding knowledge about Reproductive tract infections having three options i.e. Yes, No & Don't Know. The participants have to choose right one. One mark was given for each correct answer and zero for incorrect answer. The maximum score was 20 and minimum score was zero in each category. Scoring was done on the basis of marks as

>80% (16-20) = very good
60-79% (12-15) = Good
41-59% (8-11) = Fair
<40% (< 8) = poor

Validity of tool: by the experts in this field

Data Collection

Data was collected under the guidance of supervisors. The google form questionnaire was circulated via online modes like e-mail and social media platforms like WhatsApp groups, Facebook, Instagram and LinkedIn among women of reproductive age group in both rural and urban area of Himachal Pradesh till the 400 responses were collected.

Data Analysis

Data was collected and entered in Microsoft excel spread sheet, cleaned for errors and analyzed with Epi Info V7 Software with appropriate statistical test in terms of frequencies and percentage.

Ethical Considerations

Participants confidentiality and anonymity were maintained.

RESULTS

The goal of the current study was to assess the awareness about Reproductive tract infections among women of reproductive age group in Himachal Pradesh through a non-experimental descriptive survey.

(Table 1) A total of 400 respondents including 165 (41.25%) were from urban area and 235(58.75%) were from rural area were participated in the study.

(Table 2) In the present study 16.25% (65) participants had very good knowledge (16-20 marks) towards Reproductive tract infections, 27.0% (108) had good knowledge (12-15 marks), 33.75% (135) had fair knowledge (8-11 marks) and 23.0% (92) having poor knowledge (<8 marks).

DISCUSSION

Reproductive tract infections (RTIs) refer to a group of infections that affect the reproductive tract in females, which includes the vagina, cervix, uterus, fallopian tubes, and ovaries. In India, RTIs are a major public health problem, affecting millions of women each year. Unfortunately, many women in our study were not aware of the risks and causes of RTIs and the importance of seeking medical help if they experience symptoms [1,12,13].

One of the main causes of RTIs in India is poor menstrual hygiene management, which is a widespread issue in many parts of the country. Many girls and women lack access to basic menstrual hygiene products, such as pads and tampons, and may resort to using unsanitary materials like cloth or ash. This can lead to infections like bacterial vaginosis and yeast infections, which can have serious health consequences if left untreated [14,15].

Another factor contributing to RTIs in India is a lack of awareness about safe sex practices and the importance of using condoms to prevent sexually transmitted infections (STIs). STIs like chlamydia and gonorrhea can cause RTIs and can also lead to infertility if left untreated. Additionally, there is a lack of access to affordable and quality healthcare in many parts of the country, which makes it difficult for women to seek

Table-1: Knowledge regarding Reproductive tract infections among study participants

S. No.	Statements	Frequency of Correct Responses	Percentage %
1	Reproductive tract infections (RTIs) are common in women of reproductive age in India, and can cause a range of symptoms and health problems.	287	71.75
2	RTIs can be caused by a variety of pathogens including bacteria, viruses, and parasites.	277	69.25
3	Common symptoms of RTIs include vaginal discharge, pain during sex, itching or burning in the genital area, and abdominal pain.	282	70.5
4	Some RTIs may not cause any symptoms and can go undetected, which can lead to long-term health problems.	235	58.75
5	RTIs can be transmitted through sexual contact, poor hygiene, or exposure to contaminated water or other substances.	288	72
6	Good personal hygiene, including regular handwashing and keeping the genital area clean and dry, can help prevent RTIs.	284	71
7	Condom use can also help reduce the risk of RTIs, as well as other sexually transmitted infections.	265	66.25
8	Prompt diagnosis and treatment of RTIs is important to prevent long-term complications such as infertility and ectopic pregnancy.	263	65.75
9	Treatment for RTIs may involve antibiotics or antiviral medications, depending on the cause of the infection.	257	64.25
10	Self-medication with over-the-counter drugs is not recommended and can lead to antibiotic resistance	249	62.25
11	Regular screening for RTIs is recommended for sexually active women, especially those with multiple partners.	265	66.25
12	Pap smear and HPV testing are recommended for women over 21 years of age to screen for cervical cancer, which is often caused by certain types of RTIs.	249	62.25
13	Prevention of RTIs is important during pregnancy as they can cause complications such as premature birth and low birth weight.	243	60.75
14	Pregnant women should undergo routine screening for RTIs and receive prompt treatment if necessary.	251	62.75
15	HIV-positive women are at higher risk for RTIs and should receive regular screening and treatment.	265	66.25
16	Women who have undergone female genital mutilation (FGM) may be at higher risk for RTIs and should receive appropriate care.	249	62.25
17	Education and awareness campaigns can help reduce the stigma associated with RTIs and encourage women to seek screening and treatment.	276	69
18	RTIs can be a major public health concern in India, and efforts should be made to improve access to healthcare services and promote prevention and early detection.	254	63.5
19	The cost of healthcare services can be a barrier for some women, and efforts should be made to ensure that these services are accessible to all.	276	69
20	Overall, the best way to prevent RTIs is through good personal hygiene, safe sex practices, regular screening, and prompt treatment if necessary.	279	69.75

Table 2: Knowledge score regarding Reproductive tract infections among study participants

Category (Marks)	Frequency (n=400)	%
V. Good (16-20)	65	16.25
Good (12-15)	108	27
Fair 8-11)	135	33.75
Poor (<8)	92	23

Maximum =20 Minimum=6

treatment for RTIs. This is especially true for women living in rural areas, where healthcare facilities may be far away or understaffed [16-18].

To address these issues, there is a need for greater awareness and education about RTIs and safe sex practices in India. This can be done through public health campaigns, educational programs in schools and communities, and by making basic menstrual hygiene products and condoms more accessible and affordable. In conclusion, RTIs are a serious public health issue in India that affect millions of women each year. There is a need for greater awareness and education about the risks and causes of RTIs and the importance of seeking medical help if symptoms occur. By addressing these issues, we can improve the health and well-being of women in India and reduce the burden of RTIs on the healthcare system [16-20].

Limitations of the study

Due to the limited sample size and cross-sectional character of the current investigation, it was challenging to generalize the results. Future studies should concentrate on qualitative investigations with a bigger sample size, such as focus group interviews, to identify obstacles to promoting the right kind of knowledge about reproductive tract infections.

CONCLUSION

In conclusion, many women are still unaware of the risks and consequences of these infections. It is crucial to improve awareness and education about the prevention, diagnosis, and treatment of reproductive tract infections among females in India.

Healthcare providers and policymakers should prioritize reproductive health education programs, particularly in rural areas and low-income communities where the burden of these infections is the highest. Women must be empowered to speak openly about their reproductive health and seek timely medical attention when needed. By improving awareness and access to care, we can reduce the prevalence of reproductive tract infections and improve the quality of life for millions of women in India.

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