ORIGINAL ARTICLE
pISSN 0976 3325 | eISSN 2229 6816
Open Access Article
www.njcmindia.org

Awareness of Women on Reproductive Tract Infections in Rural Field Practice Areas of a Medical College in Mangalore

Shruthi M Shetty[1], KG Kiran[2], Sanjeev Badiger[2], Vinayak J Kempaller[3]

Financial Support: None declared
Conflict of Interest: None declared

How to cite this article:
Shetty SM, Kiran KG, Badiger S, Kempaller VJ. Awareness of Women on Reproductive Tract Infections in Rural Field Practice Areas of a Medical College in Mangalore. Natl J Community Med 2017; 8(9):546-549.

Author's Affiliation:
[1]Asst Prof, Dept of Community Medicine , Sapthagiri Institute of Medical Sciences and Research Centre, Bangalore; [2]Professor, Dept of Community Medicine, KS Hegde Medical Academy, Nitte University, Mangalore; [3] Asst Prof, Dept of Community Medicine, SS Institute of Medical Sciences, Davengere, Karnataka

Correspondence
Shruthi M Shetty
pahuli2124@gmail.com

Date of Submission: 06-03-17
Date of Acceptance: 09-09-17
Date of Publication: 30-09-17

ABSTRACT

Introduction: The rising consequences of Reproductive tract infections (RTIs) such as cervical cancer and infertility which affect the quality of life of women and socio-economic development of the country, proves that awareness on Reproductive Tract Infections is the need of the hour.

O**bjectives:** This study was carried out to assess the awareness of Reproductive Tract Infections in women residing in rural field practice areas of a Medical College in Mangalore.

Methods: A cross-sectional study was carried out on 336 women of 15-49 years of age in two rural field practice areas of a Medical College in Mangalore. Simple random sampling was done and a pretested semi structured questionnaire, after taking written informed consent was used. Frequency, percentages were calculated and Chi Square Test was applied.

Results: Of 336 women, 64% mentioned that they were aware of RTIs. The major causes of RTIs as informed were lack of personal hygiene (34.4%) and more number of sexual partners (28.5%). The major health problems stated were weakness (32.1%) and infertility (14%). 41% of the respondents were aware that both partners should be treated for reproductive tract infections.

Conclusion: Steps need to be taken to educate the community on RTIs and to seek health care at the earliest, as awareness is still lacking in the community.

Key words: Reproductive Tract Infections, Knowledge, Women, Rural area

INTRODUCTION

Reproductive Tract Infections play an important role in the reproductive health of women, as they touch upon safe motherhood, child health, HIV transmission, and family planning.[1] If we trace back to this realization our foot-steps take us to the International Conference on Population and Development held in Cairo in 1994, where it was brought to light that fulfilling the rights of women and girls is central to development.[2]

The true incidence of Reproductive Tract Infections may never be known due to inadequate reporting and stigma associated with these infections. Yet more than 1 million sexually transmitted infections (STI) are said to be acquired every day worldwide. Each year it is estimated that 357 million new infections, which are curable are caused by chlamydia, gonorrhoea, syphilis and trichomoniasis. It also seen that more than 500 million people are infected with Herpes simplex virus (HSV), and more than 290 million women with Human papilloma virus (HPV) infection.[3]

Untreated or improperly treated reproductive tract infections can lead to various problems in women

like pelvic inflammatory diseases, chronic pelvic pain, tubo-ovarian abscess, ectopic pregnancy, fetal loss, health problems to the new born, increased risk of HIV transmission, cervical cancer, and even infertility.[4]

Hence this study was carried out to assess the awareness of women in two rural field practice areas of a medical college on reproductive tract infections.

METHODOLOGY

A cross- sectional study was carried out from January 2015- May 2016 in two field practice areas of a Medical college in Mangalore, Karnataka. Simple random sampling was used until the desired sample size was reached by door- to door house visits. Fifty percent of the desired sample was taken from each village. Sample size was calculated based on the prevalence of 30% of RTIs in community based studies using the formula $4PQ/d^2$, till 336 women of 15-49 years in age were evaluated.[5,6,7] Married and unmarried women were included in this study and women who were mentally or terminally ill were excluded. A questionnaire was prepared specifically for this study. A pilot study and validation of the questionnaire was also carried out. Written informed consent (English and Kannada) was taken along with assent of the participants with age of less than 18 years, in a language they understood. Ethical Clearance was taken from the Institutional Ethical board.

Statistics

Data was entered into Microsoft Excel and analyzed with help of SPSS version 16, where frequency, percentages, mean and standard deviation were calculated. Chi Square Test with Fisher's Exact Test was applied to know the association between the different variables wherever necessary. Results with p value of <0.05 was taken as significant.

RESULTS

The study population consisted of 336 women in the age group of 15 to 49 years of age residing in rural field practice areas of a Medical College in Mangalore. The mean age of the participants was 34.72±9.29 years. The majority of the study population consisted of women in the age group of 36 to 40 years and 21 to 25 years of age, with predominately Hindu(47.3%) and Muslim women(41.7%).81% of the study population consisted of currently married women, with the mean marital age of the women being 21.05±3.96years. Around 61.6% of the women had received a primary level of education (<7th Standard) with only a minority of them having graduate (4.8%) and post graduate degrees (4.5%). Majority (75%) of the women were unskilled workers (house wives/ beedi workers), in which 47% of the study population consisted of housewives. The unemployed women were those who had stopped their education and remained at home and students (3.9%).

Table 1: Awareness of Symptoms of RTIs as mentioned by the Study Population (N=215) [More than one Answer was allowed]

Reported Symptoms of RTIs	Women (%)
Generalized Weakness	44 (20.5)
Lower abdominal pain	31 (14.4)
Low Backache	21 (9.8)
White Discharge Per vagina	43 (20)
Itching	36 (16.7)
Increased Menstrual Bleeding	10 (4.7)
Fever	5 (2.3)
Loss of weight	3 (1.4)
Vomiting	2 (1)
Weakness	1 (0.5)
Don't Know	114 (53)

Table 2: Educational Status and Knowledge of RTIs (N=336)

Educational Status	Knowledge of RTIs (%)		Total (%)
	Present	Absent	
Less than 12th	186(61)	119(39)	305(100)
More than 12th	29(93.5)	2(6.5)	31(100)
Total	215(64)	121(36)	336(100)

Chi Square with Fisher's Exact Test 12.95; P Value <0.001

Table 3: Socio-economic status of Study Participant and Knowledge of RTIs (N=294)

Socio-economic Status	Knowledge of RTIs-n (%)		Total (%)
	Present	Absent	
Upper Class	70 (69.3)	31 (30.7)	101
Middle Class	54 (72)	21 (28)	75
Lower Class	91 (56.9)	69 (43.1)	160
Total	215 (64)	121 (36)	336

Chi Square with Fisher's Exact Test 6.84; P Value 0.033

In this study, it was found that 64% (215) of the study population were aware of reproductive tract infections. Only 114 women stated that they were aware of the mode of spread of RTIs, with 99(86.8%) women stating that sexual intercourse can spread RTIs. Other factors such as increased body heat (9.8%), mosquito bites (7%), poor diet (0.9%) and curse of god (0.9%) were also reported causes of RTIs. It was found that 66.5% were aware that RTIs are curable, 17.2% were not aware and 16.3% did not know whether RTIs are curable.

The major causes of RTIs stated by the study population were due to lack of personal hygiene (34.4%), more number of sexual partners (28.4%),

and lack of menstrual hygiene (17.7%). The respondents in this study also stated that improved personal hygiene (36.3%) and not having more than one sexual partner (22.7%) prevented RTIs. Other preventive measure reported were using condoms (18.6%) , medication (4.7%), not sharing clothes(4.1%) . 12.2% were unaware of any preventive measure.

Around 32% of the women felt that weakness was a major health problem due to RTIs , followed by infertility (14%), back pain (11.2%) , increased menstrual bleeding (9.3%), cancer(8.8%). Around 23.6% were not aware of the health problems faced after RTIs.

In 215 women who were aware of RTIs, 20.5% mentioned the main symptoms of RTIs were generalized weakness, vaginal discharge (20%) and itching (16.7%) {Table 1}. 41% of the respondents also informed that they were aware that their partners should also be treated if reproductive tract infections occur.

Out of 336 women involved in this study, only 215 were aware of RTIs, it was seen that there was no significant association between the different religious groups (Hindu, Muslim, and Christian) and awareness of reproductive tract infections (p=0.102, Chi Square= 4.5). There was also no significant association between marital status and awareness of reproductive tract infections (p=0.146, Chi Square = 4.8). Yet it was seen that awareness of the study participants on RTIs increased with the level of education {Table 2} they possessed, which was found to be statistically significant (p<0.001, Chi Square=12.95). A large number of skilled and professional workers (96.7%) were found to be aware of RTIs as compared to other professions. There was also a significant association between socio-economic status and awareness of reproductive tract infections (p=0.033, Chi Square =6.84), with 69.3% of the upper class aware of RTIs {Table 3}.

DISCUSSION

In this study it was found that 64% of the study population were aware of reproductive tract infections which is similar to a study by Ratnaprabha G K et al where 69% of their study population were aware of RTIs.[6]

The major causes of RTIs stated by the study population were due to lack of personal hygiene (34.4%), more number of sexual partners (28.4%), and lack of menstrual hygiene (17.7%). Lack of personal hygiene was also a major reason stated by women in a study in the northeastern states of India. [8] Another study carried out by Chavan S S also found that 32.5% of women stated that RTI/STI symptoms are due to curse from god/ bad things done in the past.[9,10]

Around 114 women stated that they were aware of the mode of spread of RTIs, of these 99 women told that sexual intercourse can spread RTIs. The respondents in this study also stated that improved personal hygiene (36.3%) and not having more than one sexual partner (22.7%) prevented RTIs. This was seen in a study by Prusty et al based on the 2007-2008 DLHS data, which revealed that 60% of the women stated that unsafe sex with persons and having many sexual partners were the major modes of transmission of RTIs' among women in India.[11] The study by Rizwan et al also found that their study population felt that safe sexual practices and maintaining hygiene prevented RTIs. [12] This highlights that mass media campaigns and health education play a major role in overcoming stigmatized issues like reproductive health and safe sexual practices.

In 215 women who were aware of RTIs, 20.5% said the main symptoms of RTIs were generalized weakness, vaginal discharge (20%) and itching (16.7%). Some of the other health problems due to RTIs reported by women in this study were weakness (32.1%), infertility (14%), increased menstrual bleeding (9.3%), and cancer (8.8%). This was similar to a study by Rizwan et al in which the main complications of RTIs mentioned by the study population were cancer of the uterus (21%) and increased menstrual bleeding (15%) . [12]

An important finding in this study was that 41% of the women were aware that both partners should be treated for RTIs, as compared to study carried out by Hegde S K et al where only 22% of their study population were aware that both partners should be treated. [7] This increased awareness in our study population could be due to closer proximity of this study population to medical facilities and easier access to health care.

It was seen that awareness of the study participants on RTIs increased with the level of education they possessed. An interesting finding in this study however was that 65.7% of the women educated till primary level were aware of RTIs. This could be due to mass media or good interpersonal relations with community members, and proximity to medical colleges that may have influenced them. A study by Ravi RP et al also found less prevalence of RTIs in educated women and in those with a high standard of living.[13] There was no significant association between knowledge and marital status and religion in this study unlike a study by K Lalitha who found a significant relationship with demographic variables.[14] This indicates that various

factors play a role in awareness of RTIs which need to be evaluated by policy makers and local leaders.

LIMITATIONS

Estimation of correct age was difficult as reliable records were unavailable with the majority of the study subjects. Subjects may have tended to round off their age to the nearest figure. The study participants may not have given the correct information on their income, as they may be uncomfortable disclosing such details or fearing that they may lose their below poverty line status.

CONCLUSION

It was seen that 64% of the study population were aware of RTIs, yet gaps in knowledge were present in the study population on causes of RTIs, mode of spread, health problems faced after an RTI, on treatment and prevention. The highlight of this study is that 41% of the participants were aware that their partner should be treated for RTIs.

RECOMMENDATIONS

The ignorance and lack of awareness of reproductive tract infections has to be overcome with active involvement of health workers and the governmental bodies with repeated health education sessions on RTIs at the community level.

Acknowledgments: Shruthi Shetty conceived the study, designed the statistical analysis, interpreted the results and drafted the manuscript. KG Kiran interpreted the results and drafted the manuscript. Sanjeev Badiger and Vinayak participated in the design and coordination of the study. All authors read and approved the final manuscript.

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