ORIGINAL ARTICLE

KAP Study on Reproductive Tract Infections (RTIs) Among Married women (15-44 years) in rural area of Etawah, Uttar Pradesh

Vidya Rani[1], Anand Mohan Dixit[2], Naresh Pal Singh[3], Peeyush Kariwal[4]

[1,2,3]Associate Professor, [4]Assistant Professor, Department of Community Medicine, Uttar Pradesh Rural institute of Medical Sciences & Research, Saifai, Etawah, Uttar Pradesh

Abstract | Introduction | Methodology | Results | Conclusion | References | Citation | Tables / Figures

Corresponding Author

Address for Correspondence: Dr. Vidya Rani, Associate Professor, Department of Community Medicine, Uttar Pradesh Rural institute of Medical Sciences & Research, Saifai, Etawah, Uttar Pradesh – 206130, India
E Mail ID: vidyarims@gamil.com

Citation

Rani V, Dixit AM, Singh NP, Kariwal P. KAP Study on Reproductive Tract Infections (RTIs) Among Married women (15 - 44 years) in rural area of Etawah, Uttar Pradesh. Indian J Comm Health. 2016; 28, 1: 78 - 83.

Source of Funding: Nil **Conflict of Interest:** None declared

Article Cycle

Submission: 20/01/2016; **Revision:** 31/01/2016; **Acceptance:** 15/02/2016; **Publication:** 31/03/2016

Abstract

Background: High level of gynaecological morbidity, especially RTIs/STIs, if untreated, it can lead to adverse health outcomes such as infertility, ectopic pregnancy and increases vulnerability to transmission of HIV/AIDS. Sexually transmitted infections are worldwide major concern in developing countries. The major aspect of the control and prevention of disease and health protection is health education. Since knowledge plays an important role in people attitude and behaviours. **Aims & Objectives**: To assess the Knowledge, Attitudes and Practices about RTIs among married women age 15-44 years in rural Etawah. **Material Methods**: A cross sectional study was done on 370 married women of rural area of Etawah district. Multi stage random sampling was adopted. A structured questionnaire was used to assess the knowledge, Attitudes and Practices about RTIs among married women. Chi -square test used for analysis. Data collection on morbidity pattern among married women was based only on symptoms. **Result:** In the present study 42.16 % were aware about RTIs. As per their knowledge about symptoms, mode of transmission and source of infections 35.41 % women told vaginal discharge as commonest symptom of RTIs, 40.0% women perceived sexual contact with multiple partner as the main route of transmission and 29.46% married women gained knowledge about RTIs from health worker followed by doctors 28.10%. **Conclusion:** Only 42.16% had knowledge of RTIs and only 61 infected women sought treatment out of 173 symptomatic women. There is need to educate women on preventive strategies as women are less likely to seek treatment for symptomatic infections because of stigma associated with RTIs.

Key Words

Married women; Gynaecological morbidity; Knowledge; Attitudes; Practices

Introduction

Reproductive Tract infections (RTIs) in women is one of the wide spread health concerns.(1) Reproductive tract infections, sexually transmitted infections and HIV have significantly known as serious global health problems. Both men and women suffer from RTIs but their consequences are more damaging and broader for women.(2) Annually about 150 million cases of RTI occur in Southeast Asia.(2)

Many women, who on the outpatient basis refer for care facilities, suffer from vaginal infections.(3) A wide variety of infectious diseases affect the female genital tract which can be divided into two main groups.(1) Sexually transmitted diseases.(2) Infectious diseases that arises due to normal flora.(4) RTI, entails a heavy toll on women, if untreated can cause serious consequences of infertility, ectopic pregnancy, cervical cancer, menstrual disturbances, and pregnancy wastage and low birth weight babies.(5) The presence of RTIs especially ulcer

causing STI can enhance the acquisition and transmission of human deficiency virus.(6) Sexually transmitted infections are worldwide major concern in developing countries. In low income countries, STI often go undiagnosed and untreated due to lack of knowledge or non-availability of health care facilities.(2) Women have been exposed to environmental risks and stresses, which causes them to have attention to the health and health promotion behaviours. The major aspect of the control and prevention of diseases and health protection is health education.

Aims & Objectives

To assess the Knowledge, Attitudes and Practices about RTIs among married women age 15-44 years in rural Etawah.

Material and Methods

The present study was a field based cross- sectional study carried out in rural area of Etawah district, Uttar Pradesh to assess the prevalence of reproductive morbidity among married women 15-44 years age groups. Approval for this study was obtained from the institutional ethical committee of our institute UPRIMS & R, Saifai, Etawah. Assuming prevalence (35.2%) (7) in married women (15-44 years) and absolute error 5 % the minimum sample size was calculated to be 365 women in rural area by considering level of significance α=0.05. Study period was July 2014 to Dec 2015. Multi- stage random sampling was adopted. In the first stage Saifai block was selected randomly by simple random sampling among (8) blocks of Etawah district. In the second stage we listed all villages of this block. Among all villages (10) villages were selected by simple random sampling through lottery system. Since total sample size was 370, so 37 married women were enrolled in each village for study purpose. In each selected village, first house was selected by putting down pencil at the centre of the village. Tip of the pencil is selected as direction of the survey in the village. The first house which came in this direction was enrolled as first house and continued till reaching the target no of 37 in each village. We interviewed all married women in any household counted as individual number. *Inclusion criteria*: - Women of age group 15 – 44 years who was resident of selected study area and those who gave consent to participate in the study. *Exclusion criteria*: - A lady who was in the puperium period, those not willing to participate in the study.

The tools used for data collection were predesigned, pretested structured questionnaire method. Validity of the questionnaire was done by conducting pilot study among randomly selected 10% married women of study population. Before the start of the study participants were told about the purpose of the study and informed verbal consent along with guarantee of anonymity to the individuals. It sought information on socio-demographic characteristics, awareness about reproductive tract infections it includes Knowledge about symptoms, mode of transmission regarding multiple sex partner, unsafe delivery, blood transfusion, unsafe abortion, unhygienic condition, infected needle and source of information about RTIs. Data were also collected about reproductive morbidities that included symptoms of vaginal discharge, lower abdominal pain, vaginal ulcer, painful/burning micturition and menstrual problems. The menstrual problems studied were dysmenorrhoea, oligomenorrhea, polymenorrhea and menorrhagia. For quality assurance of data on each survey day in the evening the questionnaires were checked for completeness. If any information was missed or there was any confusion regarding any particulars, the respective households were revisited again on the next day. 10% of the total questionnaires were cross checked by the faculty member of the department. The data thus collected were coded and entered into computer in SPSS version 16 software package worksheet and analyzed accordingly. Percentage distribution and cross table were generated. Chi-square test was applied for drawing inference.

Results

Table 1 shows that 156 (42.16%) married women were aware about at least one symptom of reproductive tract infections while 214 (57.84%) had not heard about RTIs. As per their knowledge about symptoms of RTIs, 131 (35.41%) women out of 370 married women considered vaginal discharge as a symptom of RTIs followed by menorrhagia and irregular menstruation as symptoms of RTIs by 28.92% and 25.92% women respectively. 20% women coated lower abdominal pain as a symptom of RTIs.

Regarding the knowledge about mode of transmission of RTIs, 148(40.0%) women told that acquiring infections through multiple sex partner as the commonest mode of transmission followed by unsafe delivery responded by 120(32.42%) women.

Transmission through blood transfusion and unsafe abortion were perceived by 29.46, and 20.0% women respectively. Others mode of transmission also reported were infected needle and unhygienic condition by 5.95% and 4.32% respectively.

As per their knowledge about source of information maximum no 109(29.46%) women had gained Knowledge from health worker followed by doctors (28.10%). Other sources of information were friends (13.5%), relatives (10.8%), TV (9.73%), newspaper (2.97%) and school teachers (1.6%). (Table 2)

Table III reveals that maximum no 101(56.16%) women were aware about RTIs/STIs in age group 25-34 years as compared to 30(28.04%) in age group 15-24 years. It was significantly associated. Awareness of RTIs/STIs was significantly higher in those women educated up to class 12^{th} and $>12^{th}$ and lower in illiterate women (68.73% vs 23.12%). Women of SC/ST group were less aware about symptoms of RTIs as compared to their counterparts. This difference was significantly associated.

Table IV shows a total of 370 ever married women were interviewed. Among 370 married women 173(46.76 %) women had one or more symptoms of RTIs. Per woman average symptoms of RTIs was found to be 1.6. As shown in table V that abnormal discharge was the main symptom of RTIs complained by 107(28.92%) married women, accompanied by lower abdominal pain in 78(21.08%). Other associated symptoms related to reproductive morbidity were menstrual problems (20.27%), painful/burning sensation while micturating (4.05%) and vaginal ulcer (0.27%). Out of 173 symptomatic married women only 61 (35.26 %) women were seeking treatment as shown in table VI

Discussion

Present study shows that 42.16% married women were aware about RTIs which is comparable to similar studies conducted by Rizwan *et al* (2015) (8) in Haryana, Thekdi K P *et al* (2014) (9) in Gujarat and Rabiu *et al* (2010) (10) in Nigeria reported it 56.4%, 60.4% and 77.2% women were aware respectively. While Gupta *et al* (2015) (11), Prusty *et al* (2013) (12) and IbnSina (2002) (13) in their studies reported that 29%, 31.8% and 22% women respectively were aware about RTIs. This difference may be due to socio-demographic profile of the studied population. Regarding knowledge about symptoms of RTIs 131(35.41%) women out of 370 considered vaginal discharge as the commonest Symptom of RTIs followed by menorrhagia (28.92%), irregular menstruation (25.95%) and lower abdominal pain (20.0%). Rabiu *et al* (2010) (10) and Rizwan *et al* (2015) (8) also found vaginal discharge as commonest known symptom reported by 57.7% and 19 % women respectively in their studies, while another similar study conducted in 2014 by Thekdi K P *et al* (9) in Surendranagar, Gandhinagar considered Low backache as main known symptom (15.8) of RTIs followed by vaginal discharge (11.5%) and lower abdominal pain (10.5%) women. In our study vaginal discharge was coated as main symptom of RTIs/STIs because maximum women were illiterate and did not know other symptoms of RTIs and also suffering from vaginal discharge.

As per their knowledge regarding mode of transmission in the present study maximum no 148(40.0%) women told that sexual contact with multiple partner as the main route of acquiring infections followed by unsafe delivery 32.43%, blood transfusion 29.46% and unsafe abortion 20.0%. Prusty *et al* (2013) (12) also reported similar knowledge regarding pattern of mode of transmission. Rabiu *et al* (2010) (10) in his study reported that toilet as the most perceived mode of contracting RTIs by 44.6% women followed by sexual intercourse 44% and poor hygiene by 24.8% women. Present study reveals maximum married women had gained knowledge from health worker followed by doctors, friends, relatives and through TV, newspaper, school teacher as source of information. In the present study nearly half of married women were suffering from at least one symptom of reproductive tract infections. It was high in comparison to the findings of Abraham *et al* (2014) (14), Nandan *et al* (2002) (7), Mani G *et al* (2014) (15) Palai *et al* (1994) (16), Thakur *et al* (2002) (17) who reported it 36.85%, 35.2%, 33.3 %, 22.6% and 17.7% respectively in their studies. High prevalence in our study may be due to low level of awareness and perception about symptoms of reproductive morbidity. However other studies conducted in various parts of India also reported high prevalence of RTI.(8,18,19,20,21,22) Vaginal discharge was the commonest symptom in our study which is supported by findings of various studies.(4,9) while Gupta *et al* (2015) (11) reported lower abdominal pain was the main symptom in his study. In present study (64.74%.) infected married women were not receiving any treatment it may be due, they hesitate

to discuss their reproductive health problems especially, due to shame and embarrassment.

Conclusion & Recommendation

Only 42.16% women were about RTIs and 64.76% had not received any treatment so there is need to have effective strategies for the early diagnosis and treatment of RTIs and for their prevention educating women such as the avoidance of high risk sexual behaviour and use of barrier contraceptive methods.

Limitation of the study

Data collection was based on only symptoms reported by married women.

Authors Contribution

All authors have contributed equally in study.

References

1. Farokhzadian J, Zohreh Kermani S H, Sabzevari S, Nakhaii N.Surving Knowledge, Attitude and practice among women about prevention from common genital tract infections in Kerman. Fertility and infertility Quaterly 2005; 346-355.
2. Neshat BT, Sabetghadam M, Sabetghadam S. Reproductive Tract Infections : Barriers for seeking health behaviours,Knowledge and attitude among married women in South west Iran. Biosciences Biotechnology Research Asia December 2014; 11(3): 1253-1258
3. Mobasheri M, Saeedi Varnamkhast N, Karimi A, Banaeiyan S. Prevalence study of genital tract infections in pregnant women referred to health centers in Iran. Turk J Med Sci. 2014;44(2):232-6. PubMed PMID: 25536729.[PubMed]
4. Ryan K J,Kistnus gynecology women's health. 5th, Mosby Company 1999: 455
5. World Health Organisation. Overview and Estimates. Geneva: WHO; 2001. Global prevalence and incidence of selected curable sexually transmitted infections
6. Fleming DT, Wasserheit JN. From epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. Sex Transm Infect. 1999 Feb;75(1):3-17. Review. PubMed PMID: 10448335; PubMed Central PMCID: PMC1758168.[PubMed]
7. Nandan D, Misra SK, Sharma A, Jain M. Estimation of prevalence of RTIs/STDs among women of reproductive age group in Distt. Agra..Indian J Comm Med. 2002; 27 (3):110–13
8. Rizwan S, Rath RS, Vivek G, Nitika, Anant G, Farhad A, Vijay S. KAP Study on Sexually Transmitted Infections/Reproductive Tract Infections (STIs/RTIs) among married women in rural Haryana. Indian Dermatol Online J. 2015 Jan-Feb;6(1):9-12. doi: 10.4103/2229-5178.148919. PubMed PMID: 25657909; PubMed Central PMCID: PMC4314900.[PubMed]
9. Thekdi K P, Metha P, Thekdi PI.Awareness regarding reproductive tract infections among married women in the rural area of Surendranagar, International journal of reproduction, conception,obstetrics and Gynecology 2014; 3 (1) : 98-101
10. Rabiu KA, Adewunmi AA, Akinlusi FM, Akinola OI. Female reproductive tract infections: understandings and care seeking behaviour among women of reproductive age in Lagos, Nigeria. BMC Womens Health. 2010 Mar 23;10:8. doi: 10.1186/1472-6874-10-8. PubMed PMID: 20331888; PubMed Central PMCID: PMC2851660.[PubMed]
11. Gupta M K,Reshmi R S,Kumar D, Visengrawala F. Empowerment and engagement of SHGs against RTI/STI in Karnataka, India : an interventional study. International journal of research in medical sciences 2015 ;3(3):680-687
12. Prusty R K, Unisa S. Reproductive tract infections and treatment among married adolescent women in India. XXVII IUSSP conference 2013.
13. IbnSina, ICRH. KAP survey regarding reproductive health .Kabul. 2002: 1-8
14. Abraham A,Varghese S,Satheesh M,Vijaykumar K,Gopakumar S,Mendez A M.Pattern of gynaecological morbidity, itsfactors and health seeking behaviour among reproductive age group women in a rural community of Thiruvananthapuram district 2014;26 (3):230-37
15. Mani G. Prevalence of reproductive tract infections among rural married women in Tamil Nadu, India: A community based study. J Pioneer Med Sci. 2014; 4(1):18-24
16. Palai P, Pillay V, Singh A. Prevalence of vaginal discharge in an urban slum of Chandigarh. Med Gazette 1994; 138: 431-2.
17. Thakur JS, Swami HM, Bhatia SPS. Efficacy of syndromic approach in management of reproductive tract infections and associated difficulties in a rural area of Chandigarh. Indian J Community Med 2002; 27:110-3.
18. Bang RA, Bang AT, Baitule M, Choudhary Y, Sarmukaddam S, Tale O. High prevalence of gynaecological diseases in rural Indian women. Lancet. 1989 Jan 14;1(8629):85-8. PubMed PMID: 2562890.[PubMed].
19. Passey M, Mgone CS, Lupiwa S, Tiwara S, Lupiwa T, Alpers MP. Screening for sexually transmitted diseases in rural women in Papua New Guinea: are WHO therapeutic algorithms appropriate for case detection? Bull World Health Organ. 1998;76(4):401-11. PubMed PMID: 9803591; PubMed Central PMCID: PMC2305756.[PubMed].
20. Bhanderi MN, Kannan S. Untreated reproductive morbidities among ever married women of slums of Rajkot City, Gujarat: the role of class, distance, provider attitudes, and perceived quality of care. J Urban Health. 2010 Mar;87(2):254-63. doi: 10.1007/s11524-009-9423-y. PubMed PMID: 20108049; PubMed Central PMCID: PMC2845825.[PubMed]
21. Sharma S, Gupta B. The prevalence of reproductive tract infections and sexually transmitted diseases among married women in the reproductive age group in a rural area. Indian J Community Med. 2009 Jan;34(1):62-4. doi: 10.4103/0970-0218.45376. PubMed PMID: 19876459; PubMed Central PMCID: PMC2763657.[PubMed]
22. Latha K, Kanani SJ, Maitra N, Bhattacharya RV. Prevalence of clinically detectable gynaecological morbidity in India: Results of four community based studies. Family Welfare. 1997; 43:8–16.

Tables

TABLE 1 DISTRIBUTION OF MARRIED WOMEN ON THE BASIS OF THEIR KNOWLEDGE ABOUT RTIS

Status of Knowledge	No of women	Percentage (%) N=370
Yes	156	42.16
No	214	57.84
Total	370	100.00

TABLE 2 DISTRIBUTION OF THE MARRIED WOMEN BASED ON THEIR AWARENESS ABOUT RTIS/STIS

Knowledge of symptoms of RTIs among married women		
Characteristics	Frequency	Percentage (%) N=370
Knowledge of symptoms		
Vaginal discharge	131	35.41 %
Menorrhagia	107	28.92 %
Irregular menstruation	96	25.92 %
Lower abdominal pain	74	20.00 %
Knowledge about modes of acquiring RTIs (multiple response)		
Characteristics	Frequency	Percentage
Multiple sex Partner	148	40 .00%
Unsafe Delivery	120	32.46 %
Blood transfusion	109	29.46 %
Unsafe abortion	74	20.00 %
Infected Needle	22	5.95 %
Unhygienic condition	16	4.32 %
Knowledge about source of information (multiple response)		
Characteristics	Frequency	Percentage (%)
Health workers	109	29.46 %
Doctors	104	28.10 %
Friends	50	13.5 %
Relatives	40	10.8 %
TV	36	9.73 %
News paper	11	2.97 %
School teacher	06	1.6 %

TABLE 3 DISTRIBUTION OF MARRIED WOMEN ON THE BASIS OF THEIR AWARENESS AND SOCIO-DEMOGRAPHIC PROFILE

	No of Studied women N=370		Awareness of RTIs n=156	Percentage (%)	X2= 21.78 df = 2 p < .01
Age	15-24	107	30	28.04 %	
	25-34	190	101	56.16%	
	35-44	79	25	31.65%	
	Total	370	156	42.16%	
Literacy	Illiterate	173	40	23.12%	X2=50.03 df= 3 P < .001
	1^{st} to 8^{th}	109	60	55.05%	
	9^{th} to 11^{th}	66	41	62.12%	
	12^{th}	22	15	68.18%	
	Total	370	156	42.16%	
Type of family	Joint	253	121	47.83%	X 2 = 10 df=1 P < .01
	Nuclear	117	35	29.91%	
	Total	370	156	42.16%	
Caste	General	111	61	54.95%	
	OBC	164	70	42.68%	X2= 17.25 df=2 P < .01
	SC/ST	95	25	26.31%	
	Total	370	156	42.16%	

TABLE 4 STATUS OF REPRODUCTIVE TRACT INFECTIONS AMONG MARRIED WOMEN

Status of RTI	Studied Population N = 370	Percentage (%)
Without symptoms of RTIs	197	53.24 %
With symptoms of RTIs	173	46.76 %
Total	370	100.00 %

TABLE 5 DISTRIBUTION OF THE SYMPTOMS AMONG MARRIED WOMEN HAVING RTIS/STIS

Symptoms	No of Women (multiple response)	Prevalence % N=370
Vaginal discharge	107	28.92 %
Lower abdominal Pain	78	21.08%
Menstrual Problems	75	20.27%
Pain/ burning Micturition	15	4.05 %
Vaginal Ulcer	01	0.27%
Total	173	46.76%

TABLE 6 DISTRIBUTION OF CASES ON THE BASIS OF TREATMENT RECEIVED

Treatment Received	61	35.26%
Treatment not received	112	64.74%
Total	173	100.00%