

CHAPTER I

REVIEW OF LITERATURE

1.1 INTRODUCTION

Reproductive Tract Infections (RTIs) including Human Immuno Deficiency Virus (HIV) continue to be a serious public health problem worldwide. There exists an immediate need for the development of safe and effective vaginal microbicides that can reduce the transmission of these infections. The risk when associated with diseases such as gonococcal, chlamydial infection and trichomoniasis, risk increases up to 4-fold in women. Therefore, achieving millennium development goal of reversing the trend of HIV spread by 2015 to the extent of 25 percent among young population much will depend on effective strategies for prevention and treatment of RTI/STIs in the community. In the past two decades good no. of studies were carried out on Reproductive Health, Reproductive morbidity including STDs, RTIs and HIV/AIDS. Here an attempt was made to analyse and understand the various dimensions of the present research problem and to identify the gaps in research overtime. The review of literature has been collected from journals, books articles, websites etc.

1.2 LITERATURE REVIEWS

Reproductive tract infections (RTIs) including sexually transmitted diseases (STDs), endogenous genital tract infections (*e.g.* bacterial vaginosis and candida) and iatrogenic infections (during. IUD insertion) are a global health problem for women (**Wasserheit *et al.*, 1989**).

Wasserheit (1999) found that the RTIs can result in pelvic inflammatory disease, infertility, adverse pregnancy outcomes, carcinoma and increased susceptibility to HIV particularly in settings where diagnosis and treatment are suboptimal.

Dealing with RTIs becomes all the more important because of their relation with HIV infection. Men and women with some RTIs are at a greater risk of acquiring and transmitting HIV infection. RTIs that cause genital ulceration, such as chancroid, syphilis and herpes, can increase the risk of getting HIV infection by 3-9 times, while the inflammation causing RTIs, like gonorrhoea, chlamydia and trichomoniasis, increase it by 3-5 times. Ulcerative RTIs have a

higher probability of transmission because of the direct contact of bodily fluids through the open ulcers that allow for a greater contact and access to the virus. This is also a two-way relation as the presence of HIV makes the person more susceptible to RTIs and the infections are more difficult to cure (**Population Council, 2001**).

Sarah Hawkes et al. (2002) in their work on “Reproductive tract infections: prevalence and risk factors in rural Bangladesh” determined the prevalence of and risk factors for reproductive tract infections among men and women in a rural community in Bangladesh. In the Matlab area a systematic sample of married non-pregnant women aged women, and a systematic sample of Married and unmarried men in the same age group was drawn from a census-derived demographic surveillance list. Private interviews were conducted with 804 women in a clinic, and cervical vaginal, urinary and serological samples were collected. Urine and blood specimens were obtained from 969 men who were interviewed at home. They found that the Prevalence of bacterial and viral reproductive tract infections was low to moderate. For example, less than 1% of the women had a cervical infection. No cases of human immunodeficiency virus (HIV) infection were found. However, among men there was a high level of reported risk behavior and a low level of protection against infection. They concluded that a low prevalence of reproductive tract infections, coupled with a high level of reported risk behavior, indicated the need for primary programmes that would prevent an increase in the incidence of reproductive tract infections, sexually transmitted infections and HIV infection.

The combined burden of various RTIs is overwhelming. The target organ for all these infections is reproductive tract, RTIs have an ill effect on health as a whole. Another study in Tamil Nadu showed an RTI prevalence of 7.8% among tribal women. This may be attributed to poor health delivery system in tribal areas so also reluctance to seek medical care. A community prevalence of 8.3% was observed in a community based study conducted in Tamil Nadu (**Thomas et al, 2002**).

Divya et al. (2003) in their paper on Reproductive Health Epidemiology Series—Module 3 Reproductive Tract Infections, opined that this module is designed for reproductive health professionals interested in conducting surveillance and epidemiologic studies related to reproductive tract infections (RTIs) and who need a working knowledge of epidemiologic and

analytic issues specific to RTIs. Reproductive tract infections continue to be a major and growing public health issue in many parts of the world and are particularly widespread in resource-poor settings. Without early diagnosis and appropriate therapy, complications of RTIs severely compromise women's health, fertility, and productivity; infant health and survival; and the effectiveness of family planning programs. Interventions that truly decrease the burden of RTIs will involve the coordination of efforts among several interrelated health initiatives and will include changes in the outlook, knowledge, skills, and resources of all levels of the health care system.

Mary E. Deeb et al.(2003) in their work on Prevalence of reproductive tract infections, genital prolapse and obesity in a rural community in Lebanon determined the prevalence of reproduction-related illnesses in a rural community in Lebanon. Data were collected through interviews with women in their homes, physical examinations and history taking by physicians in a clinic in the community, and laboratory tests. A total of 557 ever-married women aged 15–60 years were selected randomly. They found that just over half of the sample (268, 50.6%) had five or more children and 320, (78.9%) of women aged <45 years were using contraception. The prevalence of reproductive tract infections was very low: six (1.2%) women had sexually transmitted diseases and 47 (9.3%) had endogenous reproductive tract infections or chlamydial infection or a positive serological finding of syphilis. None had invasive cervical cancer but only one had cervical dysplasia. In contrast, genital prolapse and gynaecological morbidity were elevated. Half of the women studied (251, 49.6%) had genital prolapse and 153 (30.2%) had obese. They concluded that the prevalence of reproductive tract infections in this conservative rural community in east Lebanon was low due the conservative nature of the community, the high rate of utilization of health care services, and the liberal use of antibiotics without a prescription. More importantly, the study showed an unexpectedly high prevalence of genital prolapsed and obesity — a finding that has clear implications for primary health care priorities in such rural communities. This study shows a surprisingly low prevalence of reproductive tract infections in this conservative Shiite Muslim rural community in east Lebanon. This might be due to the availability of over-the-counter medications, the liberal use of antibiotics, the women's limited numbers of sexual partners and the community's social norms. This study also showed an unexpectedly high prevalence of genital prolapse and obesity. Such findings

undoubtedly will influence the trend of medical practice in this community and will alter government health policies with respect to defining health priorities and reallocating existing resources. The findings of a high prevalence of reproductive symptoms and a low prevalence of reproductive tract infections called for a targeted approach to evaluate individual women with specific symptoms, because screening for genital infection does not seem to give insight into the etiology of their illnesses. In addition, gynaecologists should be more sensitive to the high morbidity experienced by women with genital prolapse.

Monika Rathore et al. (2003) in their work on Community Based Study of Self Reported Morbidity of Reproductive Tract among women of Reproductive Age in Rural Area of Rajasthan assessed the load of reproductive morbidity among the rural women. They aimed to study the association of potential risk factors with reproductive tract infection. The prevalence of self reported morbidity related to reproductive tracts was 31.8 5 per cent and reproductive tract infections (RTIs) were 22.3 5 per cent. Only 12.5 5 per cent of symptomatic women consulted health personnel for their illness before this survey. Prevalence of RTIs was significantly associated with age, married life, gravida status, invasive contraceptives, gynaecological surgical interventions and type of family. They concluded that there was a moderately high prevalence of self reported morbidity of reproductive tract, whereas, treatment seeking behavior was low. Many factors were found to be associated with RTIs. Present study revealed that prevalence of RTIs was highest (44.7%) in age group 40 to 45 years and lowest (1.7%) in 15 to 19 years age group; this may be explained by the fact that with increasing age, women experience more sexual life, pregnancies, gynaecological surgery, deliveries, invasive contraceptives etc. which make women vulnerable for RTIs. This explanation is further supported by the observation made in present study that RTIs were much more common in grand multigravida (44.9%) in comparison to nullipara (2.4%). During surgical intervention, infection can occur as is evident from this study, where 43.5% of women with history of such intervention had RTIs, while only 15.2% of women with no history of intervention had RTIs. Operative procedure of tubal ligation and introduction of foreign body (IUCD) in uterine cavity make women more prone for ascending infection from lower genital tract. Similarly, U.S. Women Health study also observed that IUCD users were 1.6 times more prone for PIDs and WHO studies in 12 countries observed that IUCD users were 2.3 times more prone for PIDs. Gynaecological examination should have been done

in every married woman to find out the total load of RTIs (symptomatic + asymptomatic) but Indian norms, values, taboos and illiteracy do not allow them to come forward to participate in such type of examinations that is why only 46.9% of symptomatic women could be examined gynaecologically. Though micro-biological investigations are the best confirmatory evidence of reproductive tract infections but it was not feasible in such field based study.

There is a dearth of information regarding the epidemiology of RTI in India for many reasons (**Desai et al, 2003**). The situation may still be worse in tribal areas, where there is hardly any access to the health delivery system due to difficult terrain. Hence a study was performed to know the prevalence of RTI in tribal women of central India.

Bacterial vaginosis is a common cause of vaginitis in women who are sexually active during childbearing age. pH changes and change in normal vaginal flora allow organisms like *Gardnerella vaginalis*, Peptostreptococci, anaerobic gram negative bacilli, *Mobiluncus* and *Mycoplasma hominis* to overgrow and cause chronic infection and discharge. Not surprisingly, bacterial vaginosis was the commonest RTI in the present study(**Rao et al., 2004**).

The study showed a high prevalence of RTIs like Trichomoniasis, Gonorrhoea and Chlamydia infection. These infections are known to also cause pelvic inflammatory disease, infertility and maternal as well as neonatal morbidity (**Sullivan et al., 2004**).

In India, research and programmatic attention to women's experience of reproductive tract infections (RTIs), including STIs, has increased considerably through the 1990s and 2000s. Several policies and programs—including the National Population Policy 2000, the National Health Policy 2002, the National Rural Health Mission 20053 and the National AIDS Control Programme Phase III4— have stressed the need for expanding women's access to services for prevention, screening and management of RTIs. Moreover, several small- and large-scale studies have documented a high prevalence of RTIs among women and shown that significant proportions of symptomatic women do not seek treatment. Studies examining characteristics that are correlated with women's ability to seek treatment, however, are sparse, and even less research have focused on young women (**MOHFW, 2005**).

Jasmine Helen Prasad et al (2005) appraised that the prevalence of reproductive tract infections (RTIS) in South Asia have been hindered by own participation rates among the youngest married women. The study of RTIS was conducted in 1996-1997 among married women 16-22 years of age in Tamil Nadu, India. Qualitative quantitative data on treatment – seeking behaviour were collected. They found that 53 per cent of women reported gynecologic symptoms, 38 per cent had laboratory findings of RITS and 14 had clinically diagnosed pelvic inflammatory disease or cervicitis, 15 per cent had sexually transmitted infections and 28 per cent had endogenous infections. Multivariate analysis found that women who worked as agricultural labourers likelihood of having a sexually transmitted infections health care center, lake of privacy etc. They concluded that lack of knowledge related to RTIs and low rates of treatment for these conditions.

Vivian F Go et al (2006) Prevalence and Risk Factors for Reproductive Tract Infections among Women in Rural Vietnam, estimated prevalence and risk factors of reproductive tract infections (RTIs) among women in Haiphong, Vietnam. In October 1998, 197 women aged 18-49 were recruited into a community-based, cross-sectional study. Of the 197 women, 95 (49.5%) were diagnosed with ≥ 1 endogenous reproductive tract infections (RTI) and 7 (3.6%) with ≥ 1 sexually transmitted disease (STD). In three separate multivariate analyses, age < 30 years (OR = 2.5; 95% CI = 1.1, 5.8), residential mobility (OR = 2.3; 95% CI = 1.1, 4.9), self reported genital itch/discharge (OR = 2.1; 95% CI = 1.1, 4.1), and reported belief that RTI symptoms were shameful (OR = 2.5; 95% CI = 1.2, 5.0) were associated with bacterial vaginosis (BV); low education was associated with candida (OR = 2.6; 95% CI = 1.0, 6.7); ≥ 1 abortion was associated with ≥ 1 STD (OR = 9.2; 95% CI = 1.1, 427). The prevalence of STDs was low but the prevalence of endogenous infections was high. Abortion is a proxy for other factors, such as high risk sexual behavior in either the woman or her partner. Given the low prevalence STD in this area of Vietnam, clinical case management of women presenting with RTI symptoms should focus on treatment of the more common endogenous infections, candida and BV. Interventions that target younger women and raise the awareness of RTI symptoms and their consequences are needed to encourage women to seek treatment from care providers. Given the low STD prevalence rate in this area of Vietnam, clinical case management of women presenting with RTI symptoms should focus on treatment of common endogenous infections, candida and BV. To

reduce the stigma associated with RTI symptoms, health education messages targeting non-sexually transmitted infections should be disseminated. At the same time, efforts should be made to provide primary healthcare providers with information on diagnosing and treating women with non-sexually transmitted RTIs to ensure that women receive appropriate and satisfactory care.

Parashar et al.(2006) in their work on Prevalence of RTI's Among Women of Reproductive Age Group in Shimla City found out the prevalence of RTI's among women of reproductive age group by using Cross-Sectional Study with women of reproductive age group in 25 Municipal Wards of Shimla City during March 1999 to October 1999. The sample size was 600 women between 15-49 years age. The study variables are education, marital status, age at marriage, socioeconomic status, menstrual hygiene practices, contraceptive practices and parity. The study was undertaken based on syndromic approach for RTI's. Based on the complaints of the patients, laboratory investigations were also undertaken. Overall prevalence of RTI's was found to be 36.3 per cent and this prevalence was significantly related to mean age at the marriage, marital status, parity, menstrual hygiene practices, current contraceptive method use and socioeconomic status. Out of 600 respondents, 218 (36.3%) were found suffering from any of the four syndromes selected for the study. Out of 248 women complaining in history, 208 were confirmed by clinical examination. 60 asymptomatic women were also subjected to the vaginal smear examination, 10 (11.7%) of them were positive on vaginal smear examination. This means, many women are asymptomatic, and hence may not be seeking treatment, though they may be suffering from disease. There is a need to create relevant awareness among the target population regarding the sign and symptoms pertaining to RTI's. The peripheral health workers should be oriented and sensitized for identifying various sign and symptoms of RTI's and be able to treat or refer the patients to the primary health centers for early and prompt treatment. The treatment based on syndromic approach should be adopted to ensure confidentiality.

Vikas Rao et al. (2006) in their work on Reproductive Tract Infections in Tribal Women of Central India made an attempt to know the prevalence of reproductive tract infections in tribal women of Madhya Pradesh state in central India. This population based cross sectional study was conducted in tribal villages of Madhya Pradesh. Women having symptom/s of RTI were

clinically examined for the presence of RTI. Appropriate specimens were collected and processed for different pathogens like Gardnerella vaginalis, Neisseria gonorrhoeae, Trichomonas vaginalis, Candida sp, Chlamydia, HSV-2, HBV, and HIV. Of the 2206 women studied, 172 had symptomatic reproductive tract infections giving a community prevalence of 7.8%. Bacterial vaginosis was the commonest RTI, followed by trichomoniasis, gonorrhoea and candidiasis. The study highlights a need to strengthen the RTI/STI control programme particularly in tribal areas. However, it cannot be claimed that the infection was via sexual route. The study area is a low prevalence area as far as HIV infection is concerned (NACO, 1998). The finding is substantiated by the fact that no HIV infection was found in the random sample. This study highlights a need to strengthen the RTI/STI control program particularly in the tribal areas.

The Report of National Guidelines for Management of Sexually Transmitted and Reproductive Tract Infections (2007) appraises that Sexually Transmitted Infections (STIs) and other Reproductive Tract Infections (RTIs) are highly prevalent in many communities worldwide. They cause considerable morbidity, while increasing the risk of acquiring HIV infection and are costly to the individual and the society in general. In Tanzania, the HIV/AIDS Surveillance Report of year 2004 reported a total of 208,384 episodes of STIs/RTIs from different health facilities throughout the country. A total of 17,323 ANC attendees were tested for syphilis and among them 1,265 women tested positive giving an overall syphilis prevalence of 7.3% among this group. There is no doubt therefore that, well coordinated and effective prevention and management of STIs/RTIs should be given high priority in all countries. These “National Guidelines for Management of STIs and RTIs” have been developed for use by all planners, managers and service providers in all health programmes and service delivery points involved in prevention, diagnosis and management of STIs/RTIs in Tanzania. The guidelines are also intended to be a reference manual, a resource to education and to remind health care workers of the need to consider STIs/RTIs when providing other reproductive health services. Service providers can use the document as a self education tool on the prevention, treatment and diagnosis of STIs/RTIs. The document can also be used for pre-service and in-service education training, and as a source of update and evidence based recommendations. The publication reflects the involvement of a substantial number of experts from within Tanzania and International institutions who reviewed and debated on the aspects of the document to ensure the

recommendations are based on the best available evidence as well as on what are considered favourable public health outcomes

Sia E Msuya et al.(2009) in their work on Prevalence of sexually transmitted infections among pregnant women with known HIV status in northern Tanzania, determined the prevalence of sexually transmitted infections (STIs) and other reproductive tract infections (RTIs) among pregnant women in Moshi, Tanzania and to compare the occurrence of STIs/RTIs among human immunodeficiency virus (HIV)-infected and uninfected women. Pregnant women in their 3rd trimester (N = 2654) were recruited from two primary health care clinics between June 2002 and March 2004. They were interviewed, examined and genital and blood samples were collected for diagnosis of STIs/RTIs and HIV. They found that the prevalence of HIV, active syphilis and herpes simplex virus – type 2 (HSV-2) were 6.9%, 0.9% and 33.6%, respectively, while 0.5% were positive for *N gonorrhoeae*, 5.0% for *T vaginalis* and 20.9% for bacterial vaginosis. Genital tract infections were more prevalent in HIV-seropositive than seronegative women, statistically significant for syphilis (3.3% vs 0.7%), HSV-2 (43.2% vs 32.0%), genital ulcers (4.4% vs 1.4%) and bacterial vaginosis (37.2% vs 19.6%). In comparison with published data, a declining trend for curable STIs/RTIs (syphilis, trichomoniasis and bacterial vaginosis) was noted. They concluded that the rates of STIs and RTIs are still high among pregnant women in Moshi. Where resources allow, routine screening and treatment of STIs/RTIs in the antenatal care setting should be offered. Higher STIs/RTIs in HIV-seropositive women supports the expansion of HIV-counselling and testing services to all centers offering antenatal care. After identification, STIs/RTIs need to be aggressively addressed in HIV-seropositive women, both at antenatal and antiretroviral therapy care clinics.

Neerja Jindal et al (2009) made a community-based study of reproductive tract infections, including sexually transmitted infections, among the rural population of Punjab, India, In the this study, the prevalence of STIs in the male population was 3.5 per cent, of which 1.5 per cent had HIV infection. Migration, mobility, and highly promiscuous behavior, combined with ignorance were found to be responsible for a majority of the STIs in males. NACO reports that in India STIs combined with HIV infection in men, accounts for nearly 15.5 per cent of healthy life lost. They concluded that there is a dire need to have cost-effective strategies for the early diagnosis and treatment of STIs and for their prevention, through information, education,

and behavior change. These should form the basis of our strategies. This would go a long way in controlling the spread of HIV / AIDS and in reducing reproductive morbidity among the sexually active population of our country.

Kosambiya et al (2009) estimated the prevalence of RTI/STI among women in urban and rural areas of Surat and analyzed the influence of socioeconomic, socio-demographic and other determinants possible related to RTI/STI. It is a community –based cross- sectional study and women aged 15-19 years (n=102) were interviewed and underwent a gynecological examination. Specimens were collected for laboratory diagnosis of Chlamydia, gonorrhoea, trichomonas, bacterial vaginosis(BV), candidacies, hepatitis, B, HIV , and syphilis. They found that Out of 51 women in rural areas, 27 (53%), and among 51 women in urban areas 35(69%), were identified having RIT/STI, and, the prevalence of trichomoniasis was found to be 41% by culture, 22% by wet mount, and 16% by Gram staining among urban women, while trichomoiasis among rural women was found to be 27% by culture, 18% by wet mount, and 14% by Gram staining. The prevalence of candidacies was found to be 14% among urban women and 12% among rural women. By using Gram staining Nugent's Criteria, the prevalence of bacterial vaginosis was found to be 24% among urban women and 25.5% among rural women. The prevalence of syphilis was found to be 2% by VDRL both among urban as well rural women. This study raised an awareness regarding high vulnerability of women in urban areas of Surat for HIV infection. The study reveals that the prevalence of RTI/STI among housewives of reproductive age is quite, high, in urban area. This may be attributed to the fact that the size of the urban population has been steadily increasing and the pace of metropolitanization (the growth of large cities) is accelerating. In Surat, selective migration of males has been a traditional feature of internal migration. Most of these migrants are married, and they leave behind their families in the villages and occasionally return to visit them. An increasing volume of internal migration combined with growing urbanization may have profound implications in terms of the overall incidence of STI in the country. Knowledge about the symptoms of RTI/STI was not adequate among both rural and urban women. The most common reported symptoms of RTI/STI are vaginal discharge. Knowledge about the way of preventing disease was also inadequate. Such a high frequency of RTI/STI requires suitable diagnostic and treatment facilities. World Health Organization has simplified the diagnosis as well as treatment though

adoption of the recommended “Syndrome approach” which is an appropriate approach for tackling this huge problem. Reproductive health needs of women of urban areas should be addressed with greater importance as they may not have primary health care setting in towns and cities.

Archana Sharma, Ys marfatia and Megha Modi (2009) in their work on Reproductive tract infections among HIV positive women: A case control study opined that the Human immunodeficiency virus (HIV) infection primarily affects women during their reproductive years, and the coexistence of reproductive tract infections (RTIS) is not surprising given the fact that HIV is mainly acquired via heterosexual contact: The aim of the study was to compare the occurrence of RTS among infected and non-infected women. A case control study of 83 HIV negative women, tested by two enzyme linked immunosorbent assay (ELISA) and a matched control of 87 HIV negative women were screened for RTIS. They were submitted to gynecological examination and cervical cytology. They found that the mean age for HIV positive women was 30 year and that for HIV negative women was 27 years but 18.5 per cent HIV positive women had menstrual irregularities compared to 6.5 per cent in seronegative group ($p=0.024$). Vaginal infections including sexually transmitted infections (STIS) were found in 47(57%) HIV positive women and 30(34%) HIV negative women ($p=0.0037$). Vaginal candidacies were the most common infection (34%) in HIV positive women, followed by trichomoniasis (12%). Human papilloma virus (HPV) was seen in Nine HIV positive women versus none in HIV negative women. Cervical cytology showed inflammation in 53(64%) HIV positive women compared to 27(31%) HIV negative women ($p=0.000023$). Genital neoplasia, including carcinoma in situ was observed in 2(2.5%) HIV positive women and in none of the HIV negative women. They concluded that reproductive tract morbidities are common in HIV positive women. So, it is immensely imperative that HIV positive women have a complete gynecological evaluation including a papanicolaou (PAP) smear with aggressive screening of STIS.

Balsara et al. (2010) in their work on Reproductive tract Disorders among Afghan Refugee women Attending Health Clinics in Haripur, Pakistan appraised that Afghans comprise one of the largest groups of refugees in the world, with the majority living in Pakistan. The objective of this study was to identify commonly –occurring reproductive tract

infections(RTIS) describe knowledge of women about RTI, and assess physical and behavioral factors contributing to the development of RTIs . Afghan women presenting at Basic health units in refugee camps in Haripur, Pakistan, With reproductive health –related complaints , were included in the study (n=634) .Data collection was done with implementation of an interview – administered questionnaire, along with a physical examination and laboratory tests. A descriptive analysis was conducted first and qualitative data were coded and analyzed- using predetermined themes. Chi-square test was used for determining the possible relationship between a binary outcome and categorical risk factors. Over three-fourths (76.7%) of those who reported to the health clinics with reproductive complaints had an RTI. Nearly half (49.5%) of these women were diagnosed with some form of vaginitis, and 14.7% were diagnosed with clinical suspicion of pelvic inflammatory disease (PID). Women with cervical prolapsed (p=0.033) or who cleansed after intercourse (p=0.002) were more likely to have vaginitis. There was a significant difference (p=0.017) in the prevalence of suspected PID among women who used mud only (11.1%) or any water (18.8%) and an old cloth or toilet paper(9.8%) for cleansing after defecation. Specific physical and behavioral contributors to the high prevalence of RTIs in this population were identified, and recommendations to ameliorate these factors are offered.

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Thapa H. Hassan (2010) conducted a survey using 139 rural married women to know awareness of sexually transmitted diseases (STD) in Barhi, Chiraigaun, and a rural premise in India. About one-fifth of the respondents were aware of STD, of which there was only one female who had not heard of STD. Mass media like TV was not popular among rural people. Health workers were the effective means of propagating knowledge and creating awareness. None of the diseased persons were using condom while 10% of non- debased respondents used condom. No awareness program on health was conducted in the locality within a year. None of the respondents were able to tell whether STD's and HIV were same or different. This study showed that there was a high prevalence (20%) of STDs and many problems existed among the rural reproductive women of Barahi, Chiraigaun. The reasons include illiteracy among women and lack of awareness about sexually hygiene in the rural community, taboos regarding menstruation in the rural socio-cultural system, shyness, privacy and unwilling attitude of married women to expose their sexual infections to family members, neighbors, poverty and low socio-economic status of rural community and quacks keeping professional medicine and practitioners in shadow. Therefore, creating awareness and providing regular health service among the rural community is necessary.

Shagun Sabarwal and K. G. Sandhya(2012) in their article on Treatment-Seeking behaviour for Symptoms of Reproductive Tract Infections among Young Women in India appraised that small proportions of Indian women report seeking treatment for symptoms suggestive of reproductive tract infections (RTIs). Most studies on treatment-seeking have focused broadly on women of reproductive age and little is known about the experiences of adolescent girls and young women, particularly the unmarried. Data from 2,742 married and 2,108 unmarried women aged 15–24 who reported at least one symptom of an RTI in the past

three months were drawn from a sub-nationally representative survey of youth in India in 2006–2008. Multivariate logistic regression analysis was conducted to identify associations between respondents' characteristics and treatment-seeking from a formal medical provider. In addition, among those who had used such providers, associations between characteristics and use of private rather than public providers were identified. About two-fifths of married and one-third of unmarried women had sought treatment from formal medical providers for their RTI symptoms. While married women's experience of intimate partner violence was negatively associated with seeking treatment from a formal provider, their perceived access to sexual and reproductive health services and their awareness of STI symptoms were positively associated with such treatment (1.3–1.4). Both married and unmarried women were more likely to seek treatment from private than from public providers, and two indicators of women's autonomy were positively correlated with using private providers (1.6–2.8). Limited treatment-seeking for RTI symptoms by young women underscores the need to address power imbalances within marriage and to encourage health care providers to develop appropriate strategies to reach younger, as well as unmarried, women. Low levels of treatment-seeking among young women in India highlight the need to sensitize health care providers about the special needs, heterogeneity and vulnerability of unmarried and married women, and to encourage providers to develop appropriate strategies to reach these diverse groups. Programs should increase efforts to serve unmarried young women and recognize their needs and rights to sexual and reproductive health information and services. Counselling and the provision of services should be made available in a nonthreatening, nonjudgmental and confidential environment. In addition, in-depth explorations of youth perspectives on ways to overcome barriers to care-seeking, and reasons underlying their preference for private-sector rather than public-sector providers, are critically needed.

Thus, the studies conducted hither to, have not revealed much on the exact type of RTI /STD infections affected by females, and there was gap in studies on actual nature of health seeking behavior, and identification of various factors that bear effect on it. The present study attempts to fill this gap.