UNDERSTANDING AND CARE SEEKING BEHAVIOUR OF REPRODUCTIVE TRACT INFECTIONS AND SEXUALLY TRANSMITTED DISEASES AMONG MARRIED WOMEN ATTENDING A TERTIARY CARE HOSPITAL, LAHORE – PAKISTAN

RAZIA CHAUDHRY, ASHRAF MAJROOH AND SAAD JAVED
Department of Community Medicine, Allama Iqbal Medical College and University of Health Sciences Lahore – Pakistan

ABSTRACT
The objective of this study was to determine understanding and health seeking behaviour among patients presenting with symptoms of reproductive tract infections (TRIs) and sexually transmitted diseases (STDs) and to identify socio-demographic and behavioral risk factors associated with these conditions. *This is a cross – sectional study and was conducted at gynae out patients clinics of Jinnah hospital Lahore. Participants were 100 women having symptoms of reproductive tract infections / sexually transmitted diseases (new and old cases), between 1st and 30th April, 2012. Face to face interview was conducted by the trained medical students and information about socio-demographic characteristics, knowledge about STDs and behavior to seek medical care, preference of medical facility, interval between appearance of symptoms and seeking for treatment and reasons for delay was recorded according to structured questionnaire. Fifty one percent women had the knowledge about STDs and main source of knowledge was electronic media, friends and relatives. All above women told the exact symptoms of these diseases and 27.3% answered that mode of transmission was mainly sexual intercourse. Sixteen percent women did not sought health care facility actively by themselves while some one brought them. Type of health care facility and provider for those who actively sought for medical care was Jinnah Hospital for 42.2% while 24%, 14%, 4.5% and 1% visited private maternity homes, Lahore General hospital, Pharmacy and herbal care respectively were tried before coming to this health facility. Reasons for not actively seeking for medical care were mildness of symptoms in 10 (out of 16), absence of perceived morbidity 1, social discrimination and shyness for genital examination in 2 and rest had the financial reasons. Women with lower education waited significantly longer for seeking care than those with higher education. Women who delayed in seeking care significantly had less knowledge of STD transmission and symptoms than women who did not delay in seeking care. It was concluded that early health care seeking behavior for STDs could be facilitated through improving women's basic knowledge regarding STDs, changing their sexual behaviour and creating a social support and environment for early care seeking.*

Key words: Health Seeking Behaviour, Health Care Provider, Respondent's knowledge of RTIs / STDs Symptoms.

INTRODUCTION

The global burden of reproductive tract infections (RTIs / STDs) is enormous and of a major public health concern, particularly in developing countries where RTIs are endemic and excluding Human Immunodeficiency Virus (HIV) constitutes the second major cause of disease burden (after maternity related causes) in young adult women in developing countries.[1] RTIs cover three types of infections [2]: Sexually transmitted infections (STDs); infections that result from overgrowth of organisms normally present in the reproductive tract and infections associated with medical procedures including abortion and insertion of intra uterine devices. Female RTIs usually originate in the lower genital tract as vaginitis or cervicitis and may produce symptoms such as abnormal vaginal discharge, genital pain, itching and burning feeling with urination. However, a high prevalence of asymptomatic disease occur which is a barrier to effective control.[3] In some instances, despite availability of these services, symptomatic persons do not seek or delay seeking appropriate diagnostic and treatment services.[5] This type of behavior leads to infertility which is a major health problem in Africa, particularly in sub-Saharan Africa where 20 – 30% of couples are unable to conceive.[6] Nige-rian gynaecologists frequently report that infertility constitutes 60 – 70% of their consultations in tertiary care institutions and most cases of infertility follow RTIs.[7] Cervical cancer is usually the result of sexually

transmitted infection.[8-9] A study was carried out among women of the reproductive age attending the gynae and family planning outpatient clinics of the Lagos State University Teaching Hospital from a readily available and accessible groups. The aim of study was thus to explore people's perceptions, treatment – seeking behavior and understanding of information about RTI / STD, in urban and rural communities in two provinces in Laos. Fourteen focus group discussions and 20 in – depth interviews were held with 76 women and 56 men. The major finding was that both male and female participants had a variety of misconceptions about the causes and symptoms of RTIs / STDs and their cure, and a reluctance to seek health care, which could cause delay in appropriate diagnosis and treatment. The most common treatment – seeking behaviour was self – medication through private pharmacies.[10] Several studies in India have shown that women in India bear the symptoms of RTIs / STDs silently without seeking health care. "District Level Household Survey – 3" (DLHS – 3) data was used to examine the sources of knowledge, awareness and treatment seeking behavior from 63,586 currently married rural women age of 15 – 49 years. Bi and multivariate analysis of data showed that awareness of RTI / STD was 28%. The women were informed about this from friends, T.V and Radio. Among them 19% of these women reported the symptoms of RTI / STDs and vaginal discharge was the most common symptom (14 percent). The number of reporting women was higher among Muslim than Jains. The Punjab showed a low prevalence of RTI / STDs among currently married women but high knowledge and treatment seeking behaviour.[11] A substantial number of women in northern Vietnam who reported RTI symptoms did not seek care.[12] RTI / STDs rank second as a cause of healthy life lost among women in the reproductive age group, in developing countries. As per an STDs prevalence study (2003), over 6% of the adult population in the country suffers from STDs.[15] Failure to diagnose and treat STSs at an early stage may result in serious complications and sequelae.[14]

Reproductive tract infections are also associated with adverse pregnancy outcomes.[15] World over, the epidemiological data shows that since major modes of transmission of HIV / AIDS and STDs are same, those suffering from STDs are at higher risk of contracting the HIV / AIDS virus.[16] The appropriate treatment of STDs at the first contact between patients and health care providers is, therefore, an important public health measure.[17] Sexually transmitted infections have long been recognized as a major public health problem because of their high prevalence and contribution to morbidity and mortality.[18] Vietnam is a developing country situated in South – East Asia, with around 100000 new cases of STDs annually.[19] However, about 80 – 90% of patients with STD go to pharmacies and private clinics, and are thus left out of reports.[20] The fact that the organization of STDs clinical services in Vietnam is complex and a cause of confusion for patients seeking care.[21] Furthermore, data on the prevalence of, and the determinants of, the healthcare – seeking behaviours for STDs in Vietnam are scarce, and are mostly based on reports from non-comprehensive national STD surveillance and a small number of unpublished reports.[22] Research on healthcare-seeking behaviors for STDs suggests that there is a significant proportion of people with STDs who delay (most commonly considered to be waiting for > 7 days from the onset of symptoms) in seeking care. For example, this proportion was 46% among women in Kenya,[23] 34% among women in the USA,[24] 59% among both men and women in the Netherlands and 41 – 44% among both men and women in South Africa.[9,10] Researchers also suggests that there is an association between delay behaviours and patients' demographic characteristics. For example, a study in Netherland indicated that women with middle educational background often delayed longer than those with high educational background, and that women living in a village were more likely to delay, and delayed longer, than those living in the cities.[25] A study in the USA found that lower household incomes were associated with prolonged care seeking intervals.[7] Furthermore, research indicates that knowledge, attitudes and sexual practices (KAP) relating to STDs are potentially associated with delay in seeking care for STDs. For example, a number of studies in South Africa found that women who delayed tended to be those who held misconceptions regarding the cause of STDs, and perceived STDs not to be serious.[26,27] In USA and the Netherlands, research suggested that embarrassment or stigma often resulted in prolonged care – seeking intervals.[24,25] Studies in Kenya and South Africa have found that women who continued to have sex while having symptoms were more likely to delay, and delayed longer than other women.[27,28]

PATIENTS AND METHODS

This cross – sectional study was conducted at gynae outpatient clinics of Jinnah Hospital which is one of the main referral hospitals with obstetrics and gynaecological services in metropolitan city of Lahore. Participants of the study were women having symptoms of reproductive tract infections and sexually transmitted diseases (new as well as old diagnosed cases), attending the gynae out – patient between 1st and 30th April, 2012. A total of 100 women were recruited for this study, three of them were excluded for non-consistent behaviour. Non-probability purposive sampling technique was used for data collection. All married women presenting with complaints

of abnormal vaginal discharge or itching of vulva, pain lower abdomen accompanied with low backache, genital ulcers and inguinal swelling, in Gynae OPD, during data collection period were interviewed by the researcher. Women presenting with reproductive tract infect ion like tuberculosis and its sequel as infertility were not included in study.

Socio-Demographic Data: was collected as age, marital status, religion, education, occupation and income / capita / month of the family.

Understanding of RTI Symptoms: was assessed by asking whether they had ever heard about RTIs and STDs symptoms and their mode of contracting or transmission and also about the use of condom regarding safe sex behaviour.

Health seeking behavior was assessed by: duration of symptoms (how many preceding days or months) and time between experiencing symptoms and seeking care at some type of medical venue or she has come directly at Gynae OPD. Reasons for not seeking treatment soon after appearance of symptoms were also asked.

Delay in seeking health care: Delay in seeking health care was measured and assessed on the basis of time interval as the number of days from the onset of symptoms until going to the first health care provider. It was set as no delay up to 7 days and delayed after 7 days.[10]

Data Collection instrument was a self structured pre-tested questionnaire. The purpose of the study was explained to the patients and after having informed consent respondent was interviewed by trained medical students who had been carefully trained about the technique of administration. Confidentiality was maintained by not including their names and addresses so as to elicit correct responses. The technique of face to face interview was used for data collection. All the questions had been constructed in the same style and were either direct (single or multiple) or open ended.

Data Analysis: Data obtained was entered in statistical software SPSS for analysis and presented in descriptive and tabular form as frequencies. Mean and SD were calculated for numerical variables. Socio-demographic and other variables related to treatment seeking behavior were cross tabulated with each other and Chi-square and Fisher's Exact test were applied for statistical significance. P-value < 0.05 was considered statistically significant. Participation of the patients was voluntary and only those who gave their consent after the purpose of the study had been explained to them. Participants were ensured about confidentiality and full privacy.

RESULTS

The mean age of all participants was 29.7 with SD $\pm$ 8.15 years (range 18 – 55 years), median = 28) 18 – 35 years were 77.3% and 36 – 55 years: 22.7%. All the patients were married and were Muslims and all belonged to Lahore city. In all, 23% of the participants had not completed primary school, 29% had completed primary, 34% went to college (junior secondary to senior secondary) and 12% had completed the graduation. The distribution of monthly income / capita was from Rs. 500 – Rs.> 2000. Eighty two (82.5%) women were house wives while 5.2%, 7.25 % and again 5.2% were school teachers, self – employed + vocational trainers and laborers respectively. Fifty one (51.5%) women had the knowledge about STDs i.e. they have heard about STDs and main source of knowledge was electronic media and friends / relatives etc. All above women (50%) told the exact symptoms of these diseases and 27.3% answered that mode of transmission is mainly sexual intercourse.

Level of knowledge of STIs, was scored and women were divided into three groups as reported by Larsen *et al*[13] based on knowledge of STDs names of symptoms (don't know any zero (47%), poor knowledge, know 1 – 2 names, (24.7%) know 2 – 4 names, some knowledge (18.6%) and good knowledge who know 2 – 4 symptoms (8.2%).

Cut – off values for time between appearance of symptoms and seeking medical care were set at 7 days.[10] 54.6% women fell in group of NO DELAY (up to 7 days) and 45.4% were in DELAY group (> 7 days). Sixteen percent women did not sought health care facility actively by themselves while some one brought them. Preference for JHL as 1st health care facility was by 42.2% while 24%, 14%, 4%, 5% and 1% visited private maternity home, General hospital, Pharmacy and herbal care tried before coming to this Govt. health facility. REASONS who did not actively sought for medical care were mildness of symptoms 10 (out of 16), absence of perceived morbidity (1), social discrimination, shyness for genital examination (4) and rest had the financial reasons.

Among 97 women 53 who did not show delay in seeking care, 22 visited health care facility provide up to 7 days while remaining 31 visited STD care provider between 8 and 30 days. The 21 women visited within 90 days and 23 women delayed in seeking care for > 3 months. The time from onset of symptoms until going to the first STD care provider ranged from 1 to 365 days (mean = 54 and median = 30 days).

Demographic differences in delay behaviour: The delay behaviors (both whether women delayed in seeking care or not, and the interval of delay) were examined in relation to the demographic variables of age, income, education status. Chi-square tests indicated that there were significant relationships between delay in seeking care and low education status and family income (P value 0.00795, 0.0168 and 0.00451 respectively). But no significant relationship was found between age of the respondents and delay behaviour.

Level of knowledge of STDs and Health seeking: Relationships were examined between delay behavior and knowledge of STDs (Symptoms and mode of acquiring). This indicated that women who did not delay in seeking care (n = 53) knew significantly more correct STDs transmission routes than those who delayed in seeking care (n = 44) (p = 0.01803). Delay in seeking care: Among 97 women 53 who did not show delay in seeking care, 22 visited STD provider in < 10 days while remaining 31 visited STD care provider between 10 and 30 days. The 21 women visited within 90 days and 23 women delayed in seeking care for > 3 months. The time from onset of symptoms until going to the first STD care provider ranged from 1 to 365 days (mean = 54 and median = 30 days).

Table 1: *Demographic differences and delay in seeking care.*

Variables	*Delay in Seeking Care for STDs*		*P-Value*
Age	*Yes*	*No*	
18 — 35 years	23	30	P=0.66
36 —55 Years	21	23	
> 55 Years	44	53	
Education			P= 0.00795
Illiterate	20	03	
Under Metric	10	19	
Metric and above	03	40	
Occupation			P =0.016835
Housewife Teacher /	02	08	
Office work Industrial	20	17	
worker/ Labourer	30	20	
Income / capita /	32	18	P = 0.00045
month 500 – 1000	15	07	
rupees 1000 – 2000	05	20	
> 2000			

Table 2: *Level of Knowledge and Time between Symptoms and Seeking Medical Care (Delay in seeking care).*

Level of Knowledge		*Time Between Symptoms and Seeking Medical Care*		*Total and p value*
		No Delay (up to 7 days)	*Delay (> 7 days)*	
Level of Knowledge	Poor Knowledge (score 0 – 2)	15	9	24
		62.5%	37.5%	100.0%
	Fair Knowledge (score 2 – 4)	9	9	18
		50.0%	50.0%	100.0%
	Good Knowledge (score 4 – 6)	2	6	8
		25.0%	75.0%	100.0%
Total		26	24	50
		53.0%	47.0%	100.0% P = 0.018

DISCUSSON

In this study, among those women who could report time from the onset of symptoms to first seeking care, over 53% waited for 7 – 30 days before seeking first health care provider for STDs. Compared with other studies conducted in other countries,[23-27] this proportion of delay was much higher. In only two relevant studies in Vietnam, conducted by Go *et al*[29] and Nguyen *et al*,[30] the proportion of delay in terms of time from onset of symptoms until first seeking care, was lower than in our study. Women with a lower educational background delayed in seeking care at the first STD care provider was significantly longer than women with higher education, This supports the finding by Leenaars *et al.*[25] and similarly to the finding of Fortenberry,[24] the present study did find an association between delay and income. This study also found that women who did not delay in seeking care at the first STD care provider had significantly better knowledge of STD transmission than women who delayed in seeking care. This supports the findings by Meyer-Weitz *et al*[26,27] and by Fortenberry.[24] This study provides important data an a very critical topic which is under - researched, However, a number of aspects of the study should be noted. Only those patients who sought care at the Gynae OPD at Jinnah Hospital Lahore during the research period were included; hence, the study excluded patients who were infected (irrespective of whether they had or did not

have symptoms) but did not seek care at all or sought care at places other than the JHL. Although non-probability sampling was the most appropriate method to use, given the sensitive nature of this study, this method may lead to sample bias, as such method may not accurately reflect all women with STDs attending the JHL. Furthermore, the small sample size of this study could partly limit the power of the tests of significance, and hence limit the possibility of finding significant relationships between studied factors. In addition, the proportion of delay found in this study was drawn only from those 53 women who could report in time from onset of symptoms until seeking care at the first STD care provider. This also limits the generalize ability of the findings and the ability to detect significant relationships. Finally, this study was based on the self – reported information from women who, due to the cultural, social and gender barriers, may not had been entirely open about their sexual lives and may have provided socially desirable answers. In light of the issues highlighted above, the study findings provide only preliminary information on healthcare – seeking behavior among women with STDs in a treatment centre. However, acknowledging this, there are a number of potential implications for delay behavior interventions. Firstly, to facilitate early healthcare – seeking behavior for STDs, education campaigns should be developed for the general public about early recognition of STDs and the benefits of prompt care-seeking. Secondly, women with less advantaged demographic backgrounds, such as women with low educational level or those from rural or remote areas, could be specifically targeted, as they were more likely to delay in seeking care and to delay longer than those with more advantaged demographic backgrounds. Although this study found no relationship between delay behaviour and attitudes to STDs, the stigma around STDs may still provide a barrier to timely healthcare seeking. For example, on one item of the attitudes scale, most women in this study reported feeling ashamed of their STDs in front of their acquaintances. It is recommended that confidential services be provided at all public and private clinics to ensure privacy and reduce women's fear of shame when attending such clinics for their STD treatment. In addition, it is important that the general population should be made aware of the basic issues relating to STDs, in order to have a tolerant view towards people with STDs and to not discriminate against them.

It is ***concluded*** that given that research about women's healthcare-seeking behavior for STDs in Pakistan is still limited, this study could contribute to facilitating early healthcare – seeking behaviour for STDs among Pakistani women. However, some potentially important aspects as knowledge about symptoms, mode of transmission, safe sex behavior to prevent transmission and influence of cultural and gender factors on women's delay in seeking care for STDs and the extent of problems existing in the STD care services affect women's healthcare-seeking behavior, have still not been studied systematically. This poses challenges as well as opportunities for further investigation in this field.

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