

# SOCIODEMOGRAPHIC CHARACTERISTICS OF THE SEXUALLY TRANSMITTED DISEASE PATIENTS WITH PSYCHIATRIC DISORDERS ATTENDING TERTIARY CARE HOSPITAL IN BANGLADESH

MC MANDAL<sup>1</sup>, MSI MULLICK<sup>2</sup>

## Summary

*Objectives:* Global distribution and determinants of sexually transmitted diseases and its presence with psychiatric disorders depict it as a menace. This study aims to scrutinize the socio-demographic characteristics of the sexually transmitted disease (STD) patients with prevalence of psychiatric disorders. *Study Design:* This cross-sectional descriptive study conducted on STD patients was carried out in two teaching institutes and their tertiary hospitals. These subjects constitute a special group of population for psychiatric diagnosis by using Structured Clinical Interview for DSM-III-R (SCID). *Setting:* The study was done on 250 STD patients attending the outpatient department of Dermatology and Venereology in Dhaka Medical College Hospital and Bangabandhu Sheikh Mujib Medical University, Dhaka, between January 1998 and January 1999. *Results:* The point prevalence of psychiatric morbidity among the STD patient was 34%. The age ranges of the patients were 18 to 55 years with mean age of 26.18 ( $\pm 6.2$ ) years. The majority of the STD cases were found between 21 and 30 years. The groups among STD cases were found more among male, Muslim, SSC & below, service holder (employed and self-employed), unmarried, urban and among low income group. Psychiatric disorders were found more in the groups of 21-30 years age, Muslim, unmarried, service holder, SSC & below. *Conclusions:* The results of this small-scale study can yield a guideline for further intensive research in this field in future. However, a large-scale multi-centered prospective study can provide more representative and inferential reflection of the results.

**Key words:** psychiatric ailments; sexually transmitted disease (STD)

## Introduction

Sexually transmitted diseases are one of the most common causes of illness in the world and have far-reaching health, social and economic consequences. Altered sex behavior, poverty, promiscuity, overcrowding, progression of industrialization, high rates of natural increases, recognized brothel, floating and residential commercial sex workers and amateur society girls are responsible for rising trends of STD.<sup>1</sup> Lack of education, social customs and lack of trained personnel are another important factor for rising STD.<sup>2</sup> Although social and demographic factors were of etiological importance, there are some possible contributions of psychiatric disorders such as personality disorders, abnormal personality traits and abnormal sexual attitudes.<sup>3</sup> The use of substance abuse and sexually promiscuous behaviors are also an important risk factor for the spread of STDS.<sup>4,5</sup>

Several studies have shown that psychiatric disorder is common among patients attending in genitourinary medicine clinics. Empirical research findings has revealed that among patients attending the clinics for sexually transmitted diseases, 20-30% have psychiatric disorders.<sup>4,5,6,7</sup> The present study aimed to explore the socio-demographic characteristics among STD patients with the prevalence of psychiatric morbidity.

## Materials and Methods

A descriptive type of cross sectional study was done in the department of Dermatology and Venereology in Bangabandhu Sheikh Mujib Medical University (BSMMU) and Dhaka Medical College Hospital (DMCH) from January 1998 to January 1999. Two hundred and fifty diagnosed cases of STD were selected from dermatology and Venereology

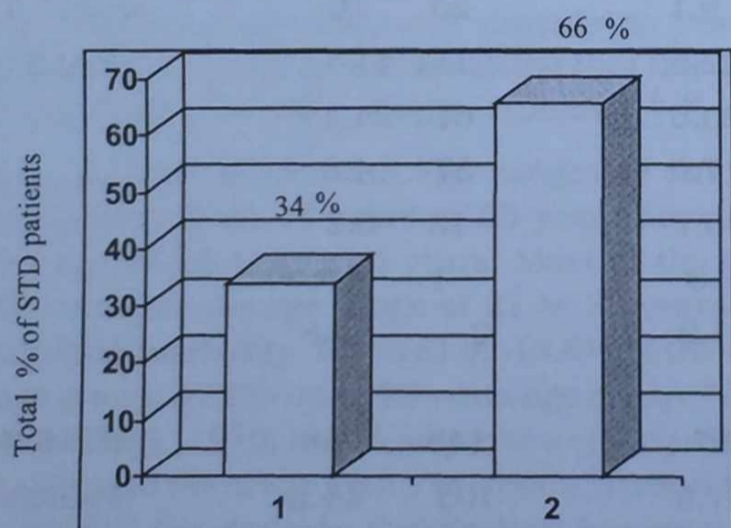
1. Resident Psychiatrist, Central Drug Addiction Treatment Center

2. Professor, Department of Psychiatry, BSMMU.

department of the two institutions in tertiary hospitals in a consecutive manner. The interview was conducted in one stage procedure. The semi-structured questionnaire containing socio-demographic data and STD related questionnaire were asked in each patient. The diagnosis was assigned according to DSM-III-R criteria. The sample size was determined by the formula  $z^2pq/d^2$  [ $z=1.96$  (for confidence 95%),  $p$ =prevalence of psychiatric morbidity (20%),  $^3, ^4, ^5$   $d$ =desired accuracy (0.05)] and it comes to a figure of 246. The socio-demographic data was collected from questionnaire database.

**Statistical analysis**

All statistical analyses were done with the help of a computer program using SPSS (Statistical Package for the Social Sciences) for windows. Statistical significance of difference between two groups was evaluated by using the 't' test and chi-square ( $\chi^2$ ) test where necessary. The demographic variables were age, sex, religion, education, occupation, and marital status, and sexual orientation, habited and income. All the tests were done at the level of 95% confidence. The results are presented in the following order.



1 = % with psychiatric morbidity, 2 = % without psychiatric morbidity

**Fig.-1:** Prevalence of psychiatric morbidity among STD patients

**Results**

Table-I shows socio-demographic characteristics of the patients.

Most of the subjects (54.4%), among total patients were in the age range 21 years to 30 years followed

by 31 years to 40 years (21.2%) and 41 to 50 years age group (5.2%). Out of 250 cases 23 was female where 34.8% suffered from psychiatric disorder. Out of 227 male cases 33.9 % suffered from psychiatric illness. Most of the subjects from without psychiatric morbidity (87.3%) and from with psychiatric morbidity (89.4%) groups were Muslim. In relations of STD cases; psychiatric morbidity was more common among secondary level of education (29.4%). This was followed by both illiterate group and S.S.C. group (20.0%). The majority of STD patients were from service group suffered from psychiatric illness (48.2%). This was followed by businessman (25.9%), unemployed (11.8%), student (10.6%), and housewife (2.4%). Among service group, employed were 22.4% and 25.9 % were self-employed. In the marital status of the STD patient it was evident that 40% were married in morbid group and 60% were unmarried. On the other hand among the without morbid group the rate were 41.8% and 57% respectively. Psychiatric morbidity was found more in low income group 52.9%, followed by 29.4% in middle and 17.7% belonged to high income group STD patients. On the other hand, 57.5%, 26.1% and 16.4% were from low, middle and high income group among non-psychiatric STD patients. There were no statistical significant difference between psychiatric disorder groups and non-disorder groups in relation to their age, sex, religion, education, occupation, marital status, income and habit group. In habited group appeared that 70.4% were from urban area where as 29.4% from rural area of the country. Statistical significant difference was observed between psychiatric disorder group and non-disorder group according to their habit (social background) ( $p < 0.05$ ). Table-II shows that majority cases, the age of first sexual intercourse was observed between 18 and 24 years (58.8%) among all the STD cases. This was followed by 33.2% in less than 18 years and only 8% between 25 and 31 years. There was no statistical significant difference among their age groups ( $p > 0.05$ ). Table-III clearly demonstrates that the use of condom among STD patients show 49.4% condom users and 50.6% were nonusers in psychiatric illness group and 48.5% and 51.5% respectively in without illness group.

**Table - I**  
Socio-demographic characteristics of the cases

Characteristics	With psychiatric		Without psychiatric		Total		Test
	morbidity n = 85 %		morbidity n = 165%		n=250%		
Age Group:							
< 20 years	15	17.6	32	19.4	47	18.8	t = 0.43
21 -30 years	49	57.6	86	52.1	136	54.4	P>0.05
31- 40 years	16	18.6	37	22.4	53	21.2	x <sup>2</sup> = 2.56
41-50 years	4	4.7	9	5.5	13	5.2	P>0.05
>51 years	1	1.2	1	0.6	1	0.4	
Sex:							
Male	77	33.9	150	66.1	227	100	x <sup>2</sup> = 0.04
Female	8	34.8	15	65.2	23	100	P>0.05
Religion:							
Islam	76	89.4	144	87.3	220	88.0	x <sup>2</sup> = 1.6
Hinduism	9	10.6	18	10.9	27	10.8	P>0.05
Christianity	0	0	2	1.2	2	0.8	
Buddhism	0	0	1	0.6	1	0.4	
Education:							
Illiterate	17	20.0	37	22.4	54	21.6	x <sup>2</sup> = 6.21
S.S.C &below	50	58.8	89	54.0	139	55.6	P>0.05
H.S.C &above	18	21.2	39	23.6	57	2.8	
Occupation:							
Unemployed	10	11.8	15	9.1	25	10	x <sup>2</sup> = 11.4
Service	41	48.2	70	42.5	111	44.4	P>0.5
Business	22	25.9	39	23.6	61	24.4	
Student	9	10.6	28	17.0	37	14.8	
Housewife	2	2.4	11	6.7	13	5.2	
CSW	1	1.2	0	0	1	.4	
Farmer	0	0	2	1.2	2	0.8	
Marital status:							
Unmarried	51	60	94	57	145	58	x <sup>2</sup> = 5.3
Married	34	40	69	41.8	103	41.2	P>0.05
Separated	0	0	2	1.2	2	0.8	
Income:*							
Low	45	52.9	95	57.5	140	56	x <sup>2</sup> = 0.45
Middle	25	29.4	43	26.1	68	27.2	P>0.05
High	15	17.7	27	16.4	42	16.8	
Habit:							
Urban	52	61.2	124	75.2	176	70.4	x <sup>2</sup> = 5.3
Rural	33	38.8	41	24.8	74	29.4	P<0.05

\* Low income-<5000/- per month, Middle-5000-10000/- per month,  
High- >10000/- per month

**Table - II**  
Distribution of age of first sexual intercourse among STD patients

Age of first Sexual intercourse	With psychiatric morbidity		Without psychiatric morbidity		Total		Test Statistics
	n=85	%	n = 165	%	n = 250	%	
<18 yr.	25	29.4	58	35.1	83	33.2	$\chi^2=0.84$
18-24 yr.	53	62.4	94	57.0	147	58.8	$p>0.05$
25-31 yr.	7	8.2	13	7.9	20	8.0	

Age of first Sexual intercourse	With psychiatric morbidity		Without psychiatric morbidity		Total		Test Statistics
	n=85	%	n = 165	%	n = 250	%	
<18 yr.	25	29.4	58	35.1	83	33.2	$\chi^2=0.84$
18-24 yr.	53	62.4	94	57.0	147	58.8	$p>0.05$
25-31 yr.	7	8.2	13	7.9	20	8.0	

**Table - III**  
Distribution of use of condom among STD patients

Use of	With psychiatric morbidity		Without psychiatric morbidity		Total		Test Statistics
	n=85	%	n = 165	%	n = 250	%	
Yes	42	49.4	80	48.5	122	48.8	$\chi^2=0.03$
No	43	50.6	85	51.5	128	51.2	$p>0.05$

### Discussion

This study was conducted in out patient department of dermatology and venereology consultation centers in teaching institute and their tertiary hospital. Two hundred and fifty STD patients were included in this study. The point prevalence of psychiatric disorder was found 34% cases and it was found that this figure was consistent to other similar studies.<sup>7, 8, 9</sup>

In the present study, the age ranges of the STD patients were from 18 years to 55 years having the mean age 26.18 ( ± 6.2 ) years. Most of the cases 57.6% were in the age range of 21 to 30 years with psychiatric morbidity, followed by 18.6% of the 31 to 40 age group, 17.6% up to 20 years age group. Pedder and Goldberg (1970) found majorities of subject were from 20 to 29 years age group in similar types of study in London.<sup>7</sup> Similar age distribution has also been reported in other studies.<sup>10,11,12</sup> In this study 23 STD female patients were examined of which 34.8% presented with psychiatric illness that of 227 male STD cases, 33.9% had psychiatric disorders. Females were more affected than men. This appeared to be due to higher prevalence of depressive disorder in women compared with men. Hence the sex distribution is consistent with findings of study done by Pedder and Goldberg (1970)<sup>7</sup> a survey by questionnaire of psychiatric disturbance in patients attending a venereal disease clinic and by Fitzpatrick, Frost and Ikkos (1986)<sup>13</sup> survey of psychological

disturbance in patients attending a sexually transmitted diseases clinic. The distributions of different education of STD patients of psychiatric morbidity were nearly homogeneous. The largest group was found in high school educational level (29.4%), followed by illiterate and SSC group of patients (20% in each group). This might be due to sample biasness as the study was conducted in special group of population and site of sample collection i.e. urban area. The distributions of different educational level of STD patients were nearly homogenous . But there was no statistically significant difference in psychiatric morbidity among the various educational groups . The largest group was found in high school educational level (29.4%) ,followed by secondary educational level and illiterate group of patients ,(20% in each group). This might be due to sample biasness as the study was conducted in special group of population and site of sample collection i.e urban In this research, among 111 STD patients 41 cases were service holder (employed and self-employed) of which was the highest that is 48.2% presented with psychiatric morbidity. It may be due to available free money in hand. Another cause may be husbands posted to distant outpost where they do not want to take their wives .Out of 61 businessmen, 25.9% cases had psychiatric illness. This was followed by 10.6% cases of students, 11.8% unemployed cases, 2.4% housewives and 1.2% commercial sex worker. In

marital status, among the STD patients with psychiatric morbidity, 60% were found unmarried and 40% was married. Barczak et al. (1988) observed similar finding, majority were single (67%), study done on patterns of psychiatric morbidity in a genitourinary clinic, London. He reported that single subjects had higher psychiatric problems than married group. This may be due to lack of family support and spouse.<sup>12</sup> A married couple living together the psychiatric problem and protects from STD. Regarding the prevalence of psychiatric disorders among STD patients between urban (61.2%) and rural (38.8%) population. It might be due to location of the hospital in the urban area and represents the pattern of patients' attendance in this type of hospital. Age of first sexual intercourse probably varies in different societies. A few studies in Africa revealed that nearly half the boys had their first sexual intercourse by the age of 15 and almost 80% by the age of 20.<sup>2</sup> In the present study age of first sexual intercourse detected a relatively greater prevalence (62.4%) of psychiatric morbidity among STD patients of age group between 18 to 24 years. It might be due to lack of specific health education such as sex education and cultural variation. Earlier age of first sexual intercourse increases the prevalence of STD infection as well as psychiatric problems. About half of the STD cases had the history of use of condom irregularly during sexual intercourse that enhances the number of psychiatric problems.

It is evident from the aforementioned findings that socio-demographic backgrounds of the STD patients with psychiatric co-morbidity are of great importance to multidisciplinary and comprehensive understanding, especially in a tertiary care center. Here the majority of the STD patients were found within 21 and 30 years and more among male, unmarried, Muslim, service holder (employed and self-employed), high school education level, urban and lower income group. However, a broad-based study would give the informative and representation the whole population in this issue may be conducted.

### Acknowledgement

We are very thankful to the out patient department (OPD) staffs of Dermatology and Venereology of BSMMU and DMCH, Dhaka for their assistance and cordial help.

### References

1. Hossain MM, Al-Amin Ma, Khan MAH. Prevalence of sexually transmitted diseases in Rajshahi Medical

College Hospital-a 5 year retrospective study. *Bangladesh J Dermatol Venereol Leprol* 1998; 15 (1): 9 -11.

2. Arya OP, Osoba AO, Bennett F J. *Tropical Venereology*. 2nd edn. Robert Stevenson House, 1-3 Boxer's place, Leith Walk, Edinburgh EH 1 3 AF: Churchill Livingstone, 1988: PP. 1-22
3. Fulford KWM, Catterall R D, Hoinville E, Lim K S, Wilson GD. Social and psychological factors in the distribution of STD in male clinic attendees. II Personality disorders, psychiatric illness and abnormal sexual attitudes. *Br J Vener Dis* 1983; 59: 381-5.
4. Gelder M, Gath D, Mayou R, Cowen P. *Oxford Text Book of psychiatry*. 3rd edn. Oxford University Press, London. 1996: PP. 379-413.
5. Fulford KWM, Catterall R D, Hoinville E, Lim K S, Wilson GD. Social and psychological factors in the distribution of STD in male clinic attendees. III Sexual activity. *Br J Vener Dis* 1983; 59: 386-93.
6. Mayou-R. psychological Morbidity in a clinic for STD. *Br J Vener Dis* 1975; 51 (1):57- 60.
7. Pedder JR, and Goldberg DP. A survey by questionnaire of psychiatric disturbance in patients attending a venereal disease clinic. *Br J Vener Dis* 1970; 46: 58-61.
8. Barczak P, Kane N, Andrews S, Congdon AM, Clay JC & Beths T. Pattern of psychiatric morbidity in a Genito-urinary Clinic. *Br J Psychiatry* 1988; 152: 698-700
9. Catalan J Bradley M, Gallway J, Hawton K. Sexual dysfunction and psychiatric morbidity in patients attending a clinic for STD. *Br J psychiatric* 1981; 138: 292-295.
10. Alam MN, Ali SMK. Dasherikandi project studies demography, morbidity and mortality in a rural community of Bangladesh. *Bangladesh Med Res Counc Bull* 1981; 7: 23-39.
11. Alam MN. Psychiatric morbidity in general practices. *Bang Med Res Counc Bull* 1978; 4: 38-42.
12. Islam H, Mullick MSI, Khanam M. Socio-demographic characteristics & psychiatric morbidity of out patients in Institute of Mental Health and Research. *J Inst Postgrad Med Res* 1993; 8: 69-78.
13. Fitzpatrick R, IKKos G and Frost D. Survey of psychological disturbance in patients attending a sexually transmitted disease clinic. *Genitourin Med* 1986; 62: III-5.