

## Prevalence of Psychiatric Ailments among Patients with Sexually Transmitted Disease

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A cross-sectional descriptive study conducted on 250 sexually transmitted disease 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 Diagnostic and Statistical Manual IIR. The study was done in the dermatology and venereology outpatient department of two tertiary hospitals of Dhaka, between January 1998 and January 1999. The findings show that 34% of total sexually transmitted disease patients had psychiatric disorders. Anxiety disorders (11.2%) were found to be the most common disorder among these psychiatric patients; this was followed by depressive disorder (8.4%), psychoactive substance use disorder (6.8%), sexual dysfunction (6.8%), bipolar mood disorder (0.4%), and schizophrenia (0.4%). Four percent of anxiety disorder was associated with psychoactive substance use disorder and sexual dysfunction. Similarly 3.6% of depressive disorder was found with psychoactive substance use disorder and sexual dysfunction while 1.6% of sexual dysfunction was associated with substance use disorder. Most of the patients in the sexually transmitted disease population recruited in the present study had both anxiety disorder and depressive disorder though majority of them were undetected and untreated. These findings underscore that special attention needs to be given to the mental health component of our health care delivery system.

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**Key Words:** Sexually transmitted diseases, Psychiatric ailments.

### Introduction

Besides social and demographic factors are of etiological importance, there are some possible contributions of psychiatric disorders such as personality disorders, abnormal personality traits and abnormal sexual attitudes<sup>1</sup>, sexually promiscuous behavior etc. in the spread of sexually transmitted diseases (STDS)<sup>2</sup>. Lack of education, social customs and lack of trained personnel are also important. Empirical research findings has revealed that amongst patients attending the STD clinics, 20-30% have psychiatric disorders<sup>3</sup>. The incidence of STD has risen to epidemic levels in recent years in many parts of the world. In a study Mayou (1975) interviewed one hundred first attendees at venereal disease clinic in London, using a semi-structured questionnaire schedule and by a standardized mental state assessment and interview schedule devised by Goldberg, he found 20% cases of psychiatric disorder and a considerable amount of psychological disturbances. There were mixed neurotic symptoms. The majority reported anxiety

about their possible illness. In a quarter the anxiety appeared to be long standing and related to chronic social and psychological difficulties<sup>4</sup>.

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The study was aimed to explore the psychiatric illness among patients with STD. The specific objectives are to find out the prevalence of psychiatric disorder among patients of STD; to determine the specific psychiatric disorders and to assess the socio-demographic characteristics of patients with STD.

**Methods**

This cross sectional descriptive study was done in the dermatology and venereology Department of 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 the aforementioned departments in a consecutive manner. A semi-structured questionnaire containing socio-demographic data and STD related variables were applied. All the subjects were physically examined thoroughly. Then they were interviewed for psychiatric assessment using Structured Clinical Interview for DSM (SCID). The diagnosis was assigned according to DSM-III-R (Diagnostic and Statistical Manual IIIR) criteria. The sample size (n) was determined by the formula  $n = z^2pq/d^2$  [ $z = 1.96$  (for confidence 95%),  $p =$  prevalence of psychiatric disorder (20%)<sup>1,2,3</sup>,  $d =$  desired accuracy (0.05)] and it comes to a figure of 246.

**Statistical analysis:**

All statistical analyses were done with the help of a computer program using Statistical Package for the Social Sciences (SPSS) for windows. Statistical significance of difference between two groups was evaluated by using the chi-square test where necessary. All the tests were done at the level of 95% confidence.

**Results**

The point prevalence of psychiatric disorder among the STD patient was found as 34%. Anxiety and depressive disorder were commonest among the STD patients, being present in 11.2% and 8.4% of all cases studied respectively; followed by psychoactive substance use disorder 6.8% cases, sexual dysfunction 6.8%, both bipolar mood disorder and schizophrenia 0.4% respectively. Details are provided in the following tables.

Table I: Prevalence of anxiety and depressive disorder versus other psychiatric disorders among STD patients

Psychiatric disorder	Yes		No		Total
	n= 108	%	n= 108	%	
Anxiety and depressive disorder	68	63	40	37	108
Other psychiatric disorders*	40	37	68	63	108

$\chi^2 = 14.5,$   $P < 0.001$

\*Psychoactive substances use disorder, sexual dysfunction, bipolar mood disorder and schizophrenia.

Table I shows among total STD patients the prevalence of anxiety and depressive disorder group was the commonest (63%). Among anxiety and depressive disorder 23 cases had additional diagnosis (co-morbid diagnosis) with psychoactive substances use disorder and sexual dysfunction. It reveals that the anxiety and depressive disorder was significantly higher prevalence than that of other psychiatric disorders as a whole ( $p < 0.001$ ).

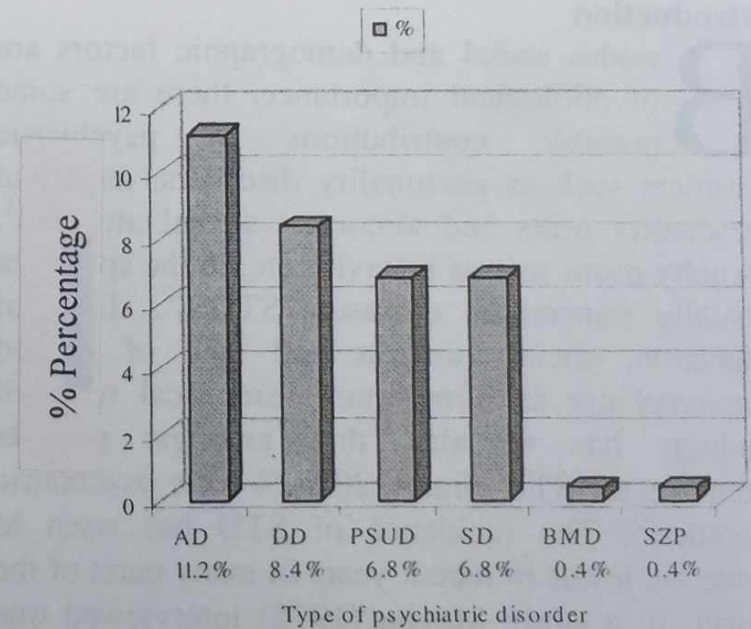


Figure 1: Prevalence of psychiatric disorder among STD patients

AD = Anxiety disorder, 11.2%; DD = Depressive disorder, 8.4%; PSUD = Psychoactive substance use disorder, 6.8%; SD = Sexual dysfunction, 6.8%; BMD = Bipolar mood disorder, 0.4%; SZP = Schizophrenia, 0.4%.

Table II: Sex wise distribution of prevalence of psychiatric disorder among STD Patients (More than one diagnosis was considered)

Type of PD	Male		Female	
	n=227	%	n=23	%
Anxiety disorder	35	15.4	3	13
Depressive disorder	25	11	5	21.7
PSUD	17	7.5	0	0
Sexual dysfunction	21	9.3	0	0
Bipolar disorder	01	0.4	0	0
Schizophrenia	01	0.4	0	0

$\chi^2 = 2.13$ ,  $P > 0.05$

PSUD - Psychoactive substance use disorder, PD- Psychiatric disorder

Table II shows sex wise distribution of different type of psychiatric disorders among STD patients. It reveals that total prevalence of psychiatric disorder among male population was found 44% and that for the female was 34.7%. The difference between male and female in relation to type of psychiatric disorder was not found as statistically significant ( $p > 0.05$ ).

Table III show the majority of STD patients had been suffering from generalized anxiety disorder (12%), major depression (6.8%), dysthymia (5.2%), psychoactive substance use disorder (6.8%), premature ejaculation (4%), loss of libido (2.8%), phobic anxiety disorder (2.4%) and

psychoactive substance abuse disorder (5.2%). Similarly minority had been suffering from psychoactive substance dependence disorder (1.6%), obsessive compulsive disorder (0.8%), erectile disorder (1.6%), bipolar mood disorder (0.4%) and schizophrenia (0.4%). More than one diagnosis, 4% (10) cases of anxiety disorder and 3.6% (9) cases of depressive disorder were present with psychoactive substance use disorder and sexual dysfunction.

Table III: Prevalence of specific psychiatric disorder among STD patients (More than one diagnosis was considered)

Psychiatric disorder	STD Patients	
	n=250	%
Anxiety disorder	38	15.2
Generalized anxiety disorder	30	12.0
Phobic anxiety disorder	6	2.4
Obsessive compulsive disorder	2	0.8
Depressive disorder	30	12.0
Major depression	17	6.8
Dysthymia	13	5.2
Psychoactive substance use disorder	17	6.8
Dependence	4	1.6
Abuse	13	5.2
Sexual dysfunction	21	8.4
Erectile disorder	4	1.6
Premature ejaculation	10	4.0
Loss of libido	7	2.8
Bipolar mood disorder	01	0.4
Schizophrenia	01	0.4

Table IV: Distribution of psychiatric disorder with the type of STD

Type of *PD	Gonorrhea		Syphilis		NGU		Chancroid		Herpes progenitalis		Both (G+S)	
	n= 43	%	n=18	%	n=17	%	n=3	%	n= 2	%	n=2	%
AD	15	34.9	4	22.2	4	23.5	3	100	2	100	2	100
DD	11	25.6	5	27.8	5	29.4	0	0	0	0	0	0
PSUD	9	20.9	3	16.8	3	17.6	0	0	0	0	0	0
SD	8	18.6	4	22.2	5	29.4	0	0	0	0	0	0
BMD	0	0	1	5.6	0	0	0	0	0	0	0	0
SZP	0	0	1	5.6	0	0	0	0	0	0	0	0

$\chi^2 = 7.8$   $P > 0.05$

\*PD - Psychiatric disorder, AD - Anxiety Disorder; DD - Depressive Disorder; PSUD - Psychoactive substance use disorder; SD - Sexual dysfunction, BMD - Bipolar mood disorder; SZP - Schizophrenia; NGU - Non-gonococcal urethritis; Both (S+G) = Gonorrhea + Syphilis.

Table IV shows among 250 STD patients 85 cases were found with psychiatric disorder. Out of all psychiatric cases with STD, 51% (43) cases were

detected with gonorrhea; and among these, anxiety disorder was 34.9%, depressive disorder 25.6%, psychoactive substance use disorder 20.9% and

sexual dysfunction 18.6%. Similarly out of 21% (18) psychiatric cases of syphilis among STD patients; anxiety disorder was 22.2%, depressive disorder 27.8%, psychoactive substance use disorder 16.8%, sexual dysfunction 22.2%, bipolar mood disorder 5.6% and schizophrenia 5.6%. Among NGU in STD patients; anxiety disorder was 23.5%, depressive disorder 29.4%, psychoactive substance use disorder 17.6% and sexual dysfunction 29.4%. No statistical significant difference was found between psychiatric disorder and STD ( $p>0.05$ ).

### Discussion

In this study 34% cases met the DSM-III-R diagnostic criteria for psychiatric disorders at the time of the interview. Barczak et al. (1988) found 31% prevalence of psychiatric morbidity by using the Structured Clinical Interview for DSM-III (SCID) scale attending genitourinary clinics in a County hospital, Lincoln<sup>5</sup>. The prevalence of the above studies are fairly consistent with prevalence of psychiatric disorder of the present study. Similar type of study was carried out by Pedder and Goldberg (1970) on 219 patients, attending consecutively in venereal disease clinic in Middlesex Hospital, London and found 29.7% point prevalence of psychiatric disorder<sup>6</sup>. Another study done by Catalan et al. (1981) reported 40% prevalence of psychiatric morbidity among the STD patients attending a clinic for sexually transmitted diseases, in Oxford University Hospital<sup>7</sup>. The high prevalence was explained by the author that this might be due to higher ratio of woman, who were more often psychiatric cases, cultural variation, the use of different research instruments for diagnosis. Mayou (1975) interviewed 100 STD patients at a venereal disease clinic of the London Hospital. He found 20% prevalence of psychiatric disorder and 45% of patients showed overt psychological disturbance<sup>4</sup>. It might be due to sex ratio and cultural variation. Moreover, these cases were not defined using diagnostic criteria. However, the result was closer to the current study.

Regarding the prevalence of specific psychiatric disorder among STD patients, there were a few studies to compare with the present study. Barczak et al. (1988), did similar type of study, in London using the DSM-III diagnostic criteria and found

20% anxiety disorder, (7% generalized anxiety disorder, 13% phobic disorder), 11% depressive disorder, (4% major depression and 7% dysthymia)<sup>5</sup>. Considering the specific psychiatric disorder, the above findings are regarded as consistent with the findings of present study, 12% depressive disorder, 6.8% major depression and 5.2% dysthymia respectively. However, we found lower rate of anxiety disorder (15.2%) and phobic anxiety disorder (2.4%) and higher rate of generalized anxiety disorder (12%) which was more than the above study. It might be due to cultural variation, sex, type of STD patients and use of different research instruments.

Alam et al. (1978) found 6% generalized anxiety disorder among 13% anxiety neurosis on psychiatric morbidity in medical general practice during the courses of one year, Dhaka.<sup>8</sup> The present study done on special group of population, generalized anxiety disorder was found 12%. This indicates significant higher findings among STD patients than finding of patients in general practice, which is very much indicative of more susceptibility of psychiatric morbidity among STD patients. More prevalence of anxiety and depression found among STD patients can be explained by worried about the problems, secondary to pain from infection or trauma or from fear of injection, re-infection or of infecting others<sup>9</sup>.

The findings of psychoactive substance use disorder were 6.8%, comprising of psychoactive substance abuse disorder 5.2%, and psychoactive substance dependence disorder 1.6%. All of them were users of mainly opioids (heroin and phensedyl containing codeine) and cannabinoids. In England Ponting and Nicol's study (1970)<sup>10</sup>, drug dependence was shown 3.1%, which was nearly double of the present study (1.6%). It might be due to cultural variation, sex and type of using the substances. In study done by Islam et al. (1993)<sup>11</sup> on socio-demographic characteristics and psychiatric morbidity of out patients in institute of Mental Health and Research, Dhaka; the prevalence of psychoactive substance use disorder was found 3%. The result of the present study 6.8% which was higher than above findings. This higher prevalence rate can be explained that the use of substances enhanced vulnerability of the individual and different group of population. Sexual

dysfunction was found 8.4% in the present study, of this premature ejaculation was 4%, loss of libido was 2.8% and erectile disorder was 1.6%. All cases of sexual dysfunction were found in male. Sexual dysfunction arises from varying combination of anxiety about sexual performance, drug abuse (opiates), physical illness such as sexually transmitted diseases, depression, anxiety disorder, ignorance and fear<sup>3,12</sup>. Islam et al (1993)<sup>11</sup> found 3% sexual dysfunction attending in outpatients in Institute of Mental and Research, Dhaka. All the sexual dysfunction were either erectile impotence or premature ejaculation or both in male. Sexual dysfunction among STD patients in present study might be due to lack of sex education, cultural factors and overvalued idea regarding male potency, shame and passive role of female.

Therefore, after considering the whole study, it can be said that prevalence of psychiatric disorder was significant among STD patients. Of this study, generalized anxiety disorder, major depression, dysthymia, phobic anxiety disorder, substance use disorder and sexual dysfunction was common. The prevalence of depressive disorder was more among female than male STD patients.

### Conclusion

Most of the patients in the STD population recruited in the present study had both anxiety disorder and depressive disorder though majority of them were undetected and untreated. These findings underscore that special attention needs to be given to the mental health component of our health care delivery system. Proper evaluation of psychiatric morbidity of these STD patients should be done by trained persons consulting with the liaison psychiatry department in the tertiary hospitals. Large-scale multi-centered study should be carried out which is supposed to be adequately representative and inferential.

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