

Major Depressive Disorder, Obsessive-Compulsive Disorder, and Generalized Anxiety Disorder: Do the Sexual Dysfunctions Differ?

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Objectives: Major depressive disorder (MDD), obsessive-compulsive disorder (OCD), and generalized anxiety disorder (GAD) are known to have significant impact on sexual functioning. They have been studied individually. Therefore, this study was planned to compare the sexual dysfunction between MDD, OCD, and GAD with healthy subjects as controls.

Method: Four groups (MDD, OCD, GAD, and healthy subjects), matched for age, gender, marital status, and education status were identified by using the Psychiatric Diagnostic Screening Questionnaire. Subjects in these groups were assessed for absence of any major physical and psychiatric disorders. MDD, OCD, and GAD were rated for severity of illness by using the Hamilton Rating Scale for Depression, Yale-Brown Obsessive Compulsive Scale, and Hamilton Rating Scale for Anxiety, respectively. Subjects were evaluated with the Arizona Sexual Experiences Scale for sexual dysfunction, which was defined as either a score of ≥ 5 on any item or a total score of ≥ 17 . Suitable statistical analysis was used to interpret the results. The study was conducted from May 2006 through July 2007.

Results: Fifty patients in each group were selected. The rate of sexual dysfunction was 30% in healthy controls, 76% in MDD subjects, 50% in OCD subjects, and 64% in GAD subjects. Low desire was the most commonly reported dysfunction among all the categories ($p < .001$). No particular dysfunction was associated with the 4 categories under study. Severity of illness did not correlate with the severity of sexual dysfunction.

Conclusion: Persons with MDD have more sexual dysfunction than those with OCD and GAD. These disorders had a pervasive affect on sexual functioning of the individuals.

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Sexual functioning is influenced by a number of factors, mental illness being one of them.¹ Sexual dysfunctions have been reported with almost all psychiatric disorders.² Major depressive disorder (MDD), obsessive-compulsive disorder (OCD), and generalized anxiety disorder (GAD) are commonly prevalent psychiatric disorders that are known to have a debilitating influence on a patient's life.³

Drug-naïve depressed patients are known to have considerable sexual dysfunction, with prevalence rates ranging from 36% to 78%.^{2,4–7} The dysfunction in depression is reported to cover almost all the areas of sexual functioning.⁷ Depressed patients showed dysfunction to be nearly 2 to 3 times higher than nondepressed individuals.⁸ Sexual dysfunction in patients with OCD and GAD has mostly been studied independently⁹ or in gender-specific studies.^{10,11} These studies have reported significant dysfunction in different areas of sexual functioning. However, the majority of these studies are uncontrolled and provide limited evidence about the rates of dysfunction across MDD, OCD, and GAD. Furthermore, patients in these 3 categories of disorders are usually prescribed antidepressant medications, which are known to cause substantial sexual dysfunction.^{12–14} Simply exemplifying the dysfunction caused by medications is imperfect unless the dysfunction caused by the disease is clearly demarcated. Moreover, these studies were carried out at different times, in different populations, and with different instruments. Hence their results cannot be taken directly.

Therefore, our study aims to compare the sexual functioning of drug-free outpatients with MDD, OCD, and GAD with that found in healthy control subjects.

METHOD

The sample was selected from patients who fulfilled selection criteria and were attending an adult psychiatry outpatient clinic of a tertiary care teaching hospital. The study was conducted from May 2006 through July 2007. A case register of 100 consecutive outpatients, irrespective of diagnosis, was studied to find the demographic details. The mean age of patients was about 35 years, mean number of years of education was 10.5, male-to-female ratio was 3:2, and ratio of married to never

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married/divorced patients was nearly 2:1. These data were taken as baseline parameters, and statistical matching with them was done after selection of 10 subjects in individual groups (MDD, OCD, GAD, and healthy subjects), and further subjects were selected accordingly.

All the first-time registered patients were screened with the Psychiatric Diagnostic Screening Questionnaire (PDSQ).¹⁵ Subjects fulfilling the criteria for MDD, OCD, and GAD separately were assessed further after matching for age, gender, marital status, and educational status. Individuals matched for age, gender, and educational and marital status (as of 3 selected categories) were voluntarily selected from the relatives of the patients attending the clinic. These subjects were processed further if they screened negative on the PDSQ.

All subjects were interviewed by using the Structured Clinical Interview for DSM-IV-TR Axis I Disorders, Research Version, Patient Edition (SCID-I/P)¹⁶ and Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II).¹⁷ A detailed history was obtained and a physical examination, consultation liaison (when required), and laboratory investigations (where indicated) were performed to rule out any physical comorbidity.

The selected cases fulfilling the selection criteria for MDD, OCD, and GAD were rated for severity of illness with the Hamilton Rating Scale for Depression (HAM-D),¹⁸ Yale-Brown Obsessive Compulsive Scale (YBOCS),¹⁹ and Hamilton Rating Scale for Anxiety (HAM-A),²⁰ respectively. OCD and GAD subjects were also rated with the HAM-D. Healthy controls were finally selected from the cohort of healthy relatives who had no psychiatric or physical disorder and who fulfilled the selection criteria. Sexual experience of subjects in the categories MDD, OCD, GAD, and healthy was assessed by using the Arizona Sexual Experience Scale (ASEX),²¹ a self-rated instrument for both genders. The ASEX rates sexual experience in the areas of desire, excitement, penile erection/vaginal lubrication, orgasm, and satisfaction from orgasm on a scale of 1 to 6. Sexual dysfunction is defined as having either a score of 5 or more on any item or a total score of 17 or more. The sexual experiences of subjects in the 4 groups are compared and presented in the study.

The exclusion criteria for all subjects included having comorbid Axis I and Axis II disorders (excluding tobacco dependence) on SCID-I/P and SCID-II; psychotic symptoms; history of sexual dysfunction prior to present episode of illness; endocrinal disorders (thyroid dysfunctions, diabetes); local genital problems (vaginitis, pelvic infections); hypogonadism; cardiovascular disorders (angina, myocardial infarction); renal dysfunctions; neurologic disorders (stroke, spinal cord lesions, pelvic autonomic neuropathy); intake of any psychiatric medication in last 1 month; and pelvic and abdominal surgeries in past, known to be causing sexual dysfunctions (oophorectomy, operations for prolapse). The subjects were ex-

cluded if above-mentioned physical disorders existed in the last 3 months. Healthy individuals were also excluded if they had any psychiatric morbidity (excluding tobacco dependence) on SCID-I/P and SCID-II. OCD and GAD subjects were excluded if they scored higher than 8 on the HAM-D.

The 4 groups (MDD, OCD, GAD, and healthy controls) were compared for homogeneity by using statistical analysis. Statistical analysis was done using SPSS version 11.5 (SPSS Inc., Chicago, Ill.). Discrete variables were compared by using χ^2 test and continuous variables by using analysis of variance (ANOVA). Correlation analysis between total score of ASEX, HAM-D, HAM-A, and YBOCS was done by using Pearson's correlation. Multinomial factorial logistic regression analysis was performed to find the relationship between ASEX items and the 4 diagnoses. Post hoc analysis was done to compare the level of significance across the mean scores. Odds ratio estimate was performed for estimation of risk of sexual dysfunction among the 4 categories. In all these analyses, 2-tailed level of significance was set at $p < .05$ and confidence interval (CI) at 95%.

RESULTS

The overall sample had a mean age of about 35 years, with nearly 11 years of formal education (Table 1). Male-female ratio was 3:2 and a predominant number of subjects were married. The 4 groups were found to be comparable in terms of age, gender, education, and marital status.

To achieve the present study subject count, 78 patients were screened in the healthy control group, 102 in the MDD group, 94 in the OCD group, and 89 in the GAD group.

Among healthy individuals, sexual dysfunction was reported in 30.0% of subjects (26.6% of males and 35.0% of females) (Table 2). Most female controls reported difficulty in vaginal lubrication (20.0%) and low orgasmic satisfaction (20.0%), while orgasmic difficulty was maximally reported among male controls (20.0%). Difficulty in attaining sexual excitement was the least prevalent dysfunction among healthy subjects. Among the 4 categories, the healthy individuals had the least frequency of dysfunction in all the items of ASEX, and the difference was statistically significant ($p < .05$) when compared to the other 3 groups individually.

Among the 4 groups, sexual dysfunction was reported maximally among MDD patients (76.0%). Subjects with MDD had the highest rates of sexual dysfunction in almost all the items (except orgasmic dysfunction) in both genders. When compared with the other 3 groups using χ^2 test, subjects with MDD experienced the highest frequency of low desire and low sexual excitement, a difference that was statistically significant ($p < .05$). Men with

Table 1. Demographic Characteristics of the Study Sample^a

Characteristic	Healthy (N = 50)	MDD (N = 50)	OCD (N = 50)	GAD (N = 50)	p Value
Age					
18–45 y	41 (82)	43 (86)	40 (80)	42 (84)	.8 ^b
46–65 y	9 (18)	7 (14)	10 (20)	8 (16)	
> 65 y	0	0	0	0	
Age, mean ± SD, y	35.4 ± 9.8	34.3 ± 9.2	35.1 ± 9.8	34.7 ± 9.2	.9 ^c
Gender					
Male	30 (60)	31 (62)	28 (56)	32 (64)	.8 ^b
Female	20 (40)	19 (38)	22 (44)	18 (36)	
Marital status					
Married	36 (72)	36 (72)	38 (76)	33 (66)	.9 ^b
Never married	10 (20)	9 (18)	8 (16)	11 (22)	
Divorced/separated	4 (8)	5 (10)	4 (8)	6 (12)	
Education					
None	4 (8)	6 (12)	6 (12)	4 (8)	.8 ^b
0–5 y	4 (8)	5 (10)	5 (10)	4 (8)	
6–8 y	8 (16)	7 (14)	8 (16)	8 (16)	
9–12 y	12 (24)	17 (34)	10 (20)	19 (38)	
University educated	22 (44)	15 (30)	21 (42)	15 (30)	
Mean ± SD, y	11.8 ± 5.3	10.5 ± 5.3	11.3 ± 5.8	11.0 ± 4.7	.6 ^c

^aData are given as absolute number of patients with the percentage indicated in parentheses except where noted.
^b χ^2 test.

^cAnalysis of variance.

Abbreviations: GAD = generalized anxiety disorder, MDD = major depressive disorder,

OCD = obsessive-compulsive disorder.

MDD had maximal complaints of low desire (45.2%) and difficulty in sustaining penile erection (35.5%), whereas in women with MDD, low desire (68.4%) and low sexual excitement (57.9%) were most frequently reported.

Among OCD subjects, half (50.0%) reported having sexual dysfunction, in men, 53.6% and in women, 45.4%. Orgasmic dysfunction was the most-reported complaint in either gender, and the frequency of occurrence was significantly highest with OCD subjects (total, 46.0%; men, 46.4%; and women, 45.4%). In GAD subjects, occurrence of sexual dysfunction was 64.0%, with low desire being the most prevalent complaint in both genders (men, 31.2% and women, 38.9%). Additionally, men with GAD also complained of difficulty in sustaining penile erection (28.1%) and women with GAD complained of orgasmic dysfunction (44.4%) in high frequency.

Multinomial factorial logistic regression analysis of total patients, with healthy subjects as reference category, revealed that only total dysfunction had significant association with MDD ($\beta = 1.522$, $p = .01$) and GAD ($\beta = 1.427$, $p = .008$). Similar results were seen in men for total dysfunction with MDD ($\beta = 2.516$, $p = .004$) and GAD ($\beta = 1.912$, $p = .03$). Additionally, difficulty in sustaining penile erection also had a significant correlation with male patients with MDD ($\beta = 3.312$, $p = .04$). In women, only GAD subjects showed significant relation with total dysfunction ($\beta = 1.872$, $p = .04$). Significant association was not found between other ASEX items and the study groups in this analysis.

Odds ratio estimates for total dysfunction using healthy subjects as control among total subjects was 2.8

for MDD, 1.5 for OCD, and 2.0 for GAD. In men, the results were 2.8 for MDD, 1.7 for OCD, and 1.9 for GAD. Women showed similar trends in MDD (2.9), OCD (1.2), and GAD (2.8).

Subjects with MDD scored significantly higher in all ASEX items except orgasmic dysfunction, which was found more often with OCD patients (Table 3). In 1-way ANOVA, this difference in scores was found to be significant ($p < .05$) across both genders. OCD and GAD patients presented with nearly comparable dysfunction scores. Among all subjects, no significant differences were found in men with difficulty in sustaining penile erection and in women with satisfaction from orgasm. The mean total dysfunction scores for MDD, OCD, and GAD were more than 17, results that denote definite dysfunction.

Post hoc analyses of mean scores of ASEX items were carried out to delineate the significance of differences among mean scores (Table 4). In dysfunction of desire and low sexual excitement and in total dysfunction, MDD subjects, both men and women, scored significantly highest among all the categories. Subjects with MDD, OCD, and GAD reported nearly similar severity of dysfunction in penile erection/vaginal lubrication, orgasmic dysfunction, and orgasmic satisfaction. The mean scores in all the items of ASEX were comparable between OCD and GAD.

Healthy subjects compared to MDD and GAD subjects reported significantly least dysfunction in all ASEX items. However, healthy subjects in comparison to OCD subjects had no significant differences with dysfunction

Table 2. Distribution of ASEX Severity Scores: Subjects Scoring 5 or More on Individual ASEX Items or 17 or More on Total Score

ASEX Item, N (%)	Healthy	MDD (HAM-D score, 23.1 ± 6.8) ^a	OCD (YBOCS score, 26.6 ± 8.0) ^a	GAD (HAM-A score, 37.1 ± 10.6) ^a	p Value ^b
Total subjects	N = 50	N = 50	N = 50	N = 50	
Desire	4 (8.0)	27 (54.0)	13 (26.0)	17 (34.0)	< .001
Excitement	3 (6.0)	21 (42.0)	12 (24.0)	11 (22.0)	< .001
Penile erection/ vaginal lubrication	8 (16.0)	19 (38.0)	13 (26.0)	14 (28.0)	.122
Orgasm	8 (16.0)	16 (32.0)	23 (46.0)	13 (26.0)	.014
Orgasmic satisfaction	7 (14.0)	17 (34.0)	14 (28.0)	12 (24.0)	.132
Total score ≥ 17	14 (28.0)	36 (72.0)	22 (44.0)	28 (56.0)	< .001
Total dysfunction ^c	15 (30.0)	38 (76.0)	25 (50.0)	32 (64.0)	< .001
Male subjects	N = 30	N = 31	N = 28	N = 32	
Desire	2 (6.7)	14 (45.2)	8 (28.6)	10 (31.2)	.009
Excitement	1 (3.3)	10 (32.2)	7 (25.0)	6 (18.7)	.033
Penile erection	4 (12.2)	11 (35.5)	6 (21.4)	9 (28.1)	.192
Orgasm	6 (20.0)	7 (22.5)	13 (46.4)	5 (15.6)	.029
Orgasmic satisfaction	3 (10.0)	9 (29.0)	10 (35.7)	5 (15.6)	.706
Total score ≥ 17	7 (23.3)	21 (67.7)	14 (50.0)	16 (50.0)	.006
Total dysfunction ^c	8 (26.6)	23 (74.2)	15 (53.6)	18 (56.2)	.003
Female subjects	N = 20	N = 19	N = 22	N = 18	
Desire	2 (10.0)	13 (68.4)	5 (22.8)	7 (38.9)	< .001
Excitement	2 (10.0)	11 (57.9)	5 (22.8)	5 (27.8)	.011
Vaginal lubrication	4 (20.0)	8 (42.1)	7 (31.8)	5 (27.8)	.538
Orgasm	2 (10.0)	9 (47.3)	10 (45.4)	8 (44.4)	.044
Orgasmic satisfaction	4 (20.0)	8 (42.1)	4 (18.2)	7 (38.9)	.061
Total score ≥ 17	7 (35.0)	15 (78.9)	8 (36.4)	12 (66.7)	.009
Total dysfunction ^c	7 (35.0)	15 (78.9)	10 (45.4)	14 (77.7)	.007

^aMean ± SD.^bχ² test.^cTotal dysfunction equals total number of subjects having score ≥ 5 on any item or having total score ≥ 17.

Abbreviations: ASEX = Arizona Sexual Experience Scale, GAD = generalized anxiety disorder, HAM-A = Hamilton Rating Scale for Anxiety, HAM-D = Hamilton Rating Scale for Depression, MDD = major depressive disorder, OCD = obsessive-compulsive disorder, YBOCS = Yale-Brown Obsessive Compulsive Scale.

Table 3. Mean ± SD ASEX Scores of the Subjects in Each Category

ASEX Item	Healthy	MDD (HAM-D score, 23.1 ± 6.8)	OCD (YBOCS score, 26.6 ± 8.0)	GAD (HAM-A score, 37.1 ± 10.6)	p Value ^a
Total subjects	N = 50	N = 50	N = 50	N = 50	
Desire	2.94 ± 0.9	4.42 ± 1.4	3.54 ± 1.4	3.80 ± 1.4	< .001
Excitement	2.60 ± 1.0	4.08 ± 1.3	3.26 ± 1.4	3.40 ± 1.4	< .001
Penile erection/ vaginal lubrication	2.86 ± 1.1	3.86 ± 1.4	3.26 ± 1.4	3.44 ± 1.4	.003
Orgasm	2.42 ± 1.2	3.74 ± 1.5	3.98 ± 1.4	3.50 ± 1.3	.011
Orgasmic satisfaction	3.02 ± 1.3	4.04 ± 1.3	3.38 ± 1.4	3.62 ± 1.4	.003
Total score	14.31 ± 4.6	20.28 ± 6.1	17.72 ± 6.6	17.76 ± 5.7	< .001
Male subjects	N = 30	N = 31	N = 28	N = 32	
Desire	2.77 ± 0.8	4.19 ± 1.5	3.25 ± 1.4	3.59 ± 1.5	.001
Excitement	2.37 ± 0.8	3.81 ± 1.3	2.93 ± 1.4	3.19 ± 1.4	< .001
Penile erection	2.77 ± 1.1	3.61 ± 1.4	2.96 ± 1.3	3.38 ± 1.4	.057
Orgasm	2.50 ± 0.8	4.19 ± 1.4	4.42 ± 1.2	3.19 ± 1.2	.004
Orgasmic satisfaction	2.93 ± 1.2	3.87 ± 1.2	3.21 ± 1.3	3.50 ± 1.2	.025
Total score	13.33 ± 3.4	18.90 ± 6.1	17.14 ± 5.9	16.88 ± 5.3	< .001
Female subjects	N = 20	N = 19	N = 22	N = 18	
Desire	3.20 ± 1.2	4.79 ± 1.2	3.91 ± 1.4	4.17 ± 1.3	.002
Excitement	2.95 ± 1.1	4.53 ± 1.2	3.68 ± 1.4	3.78 ± 1.3	.003
Vaginal lubrication	3.00 ± 1.3	4.26 ± 1.2	3.64 ± 1.4	3.56 ± 1.4	.041
Orgasm	2.12 ± 1.3	3.47 ± 1.2	3.50 ± 1.6	4.06 ± 1.4	.007
Orgasmic satisfaction	3.10 ± 1.5	4.21 ± 1.3	3.59 ± 1.6	3.83 ± 1.6	.148
Total score	15.75 ± 5.7	22.53 ± 5.6	18.73 ± 7.1	19.33 ± 6.2	.002

^aThe statistical significance of differences was determined by using analysis of variance.

Abbreviations: ASEX = Arizona Sexual Experience Scale, GAD = generalized anxiety disorder, HAM-A = Hamilton Rating Scale for Anxiety, HAM-D = Hamilton Rating Scale for Depression, MDD = major depressive disorder, OCD = obsessive-compulsive disorder, YBOCS = Yale-Brown Obsessive Compulsive Scale.

Table 4. Post Hoc Analysis of Mean Differences in ASEX Scores Between Healthy, MDD, OCD, and GAD Groups^a

ASEX Item	(A)	(B)	Total Subjects		Male Subjects		Female Subjects	
			Mean Difference (A – B)	p Value	Mean Difference (A – B)	p Value	Mean Difference (A – B)	p Value
Desire	Healthy	MDD	-1.48	< .001	-1.42	< .001	-1.59	< .001
		OCD	-0.60	.089	-0.48	.167	-0.71	.074
		GAD	-0.86	< .001	-0.83	.015	-0.97	.022
	MDD	OCD	0.88	.033	0.94	.007	0.88	.028
		GAD	0.62	.019	0.60	.022	0.62	.018
		OCD	-0.26	.413	-0.34	.318	-0.26	.525
Excitement	Healthy	MDD	-1.48	< .001	-1.44	< .001	-1.58	< .001
		OCD	-0.66	.012	-0.56	.055	-0.73	.007
		GAD	-0.80	.002	-0.82	.012	-0.83	.045
	MDD	OCD	0.82	.002	0.88	.009	0.84	.037
		GAD	0.68	.065	0.62	.085	0.75	.078
		OCD	-0.14	.591	-0.26	.432	-0.09	.813
Penile erection/ vaginal lubrication	Healthy	MDD	-1.00	.017	-0.85	.014	-1.26	.004
		OCD	-0.40	.136	-0.20	.569	-0.64	.129
		GAD	-0.58	.031	-0.61	.072	-0.56	.207
	MDD	OCD	0.60	.068	0.65	.062	0.63	.140
		GAD	0.42	.118	0.24	.475	0.71	.113
		OCD	-0.18	.501	-0.41	.231	0.08	.850
Orgasm	Healthy	MDD	-1.32	< .001	-1.69	< .001	-1.35	< .001
		OCD	-1.56	< .001	-1.92	< .001	-1.38	< .001
		GAD	-1.08	< .001	-0.69	.026	-1.94	< .001
	MDD	OCD	-0.24	.380	-0.23	.376	-0.03	.887
		GAD	0.24	.380	1.00	< .001	-0.59	.221
		OCD	0.48	.126	1.23	< .001	-0.55	.224
Orgasmic satisfaction	Healthy	MDD	-1.00	< .001	-0.94	.004	-1.11	.025
		OCD	-0.38	.160	-0.28	.388	-0.49	.299
		GAD	-0.62	.022	-0.57	.073	-0.73	.141
	MDD	OCD	0.62	.022	0.66	.043	0.62	.196
		GAD	0.38	.160	0.37	.235	0.38	.452
		OCD	-0.24	.374	-0.29	.373	-0.24	.617
Total score	Healthy	MDD	-5.98	< .001	-5.57	< .001	-6.78	< .001
		OCD	-3.42	.047	-3.82	.030	-2.98	.126
		GAD	-3.46	.003	-3.54	.037	-3.58	.026
	MDD	OCD	2.56	.039	1.76	.221	3.79	.035
		GAD	2.52	.031	2.03	.129	3.19	.123
		OCD	-0.04	.911	-1.73	.206	-0.61	.760

^aMean difference values are significant at .05 level.

Abbreviations: ASEX = Arizona Sexual Experience Scale, GAD = generalized anxiety disorder, MDD = major depressive disorder, OCD = obsessive-compulsive disorder.

in the items desire, penile erection/vaginal lubrication and orgasmic satisfaction.

On correlation analysis, the HAM-D, YBOCS, and HAM-A scores do not significantly correlate with ASEX item scores taken individually. Subjects with OCD were not categorized according to the nature of presentation. Only 3 female and 2 male OCD subjects had sexual obsessions, hence their results were not analyzed separately.

DISCUSSION

The rates of sexual dysfunction in MDD in this study have been found to be nearly 3 times higher than those in healthy subjects, a finding that corresponds with reported study of MDD.⁸ In absolute numbers, the sexual dysfunction rate of 76% in MDD in this study is nearly the same as that reported in other studies.^{2,4-7,22} The dysfunction rate found in this study in OCD was 50% and in GAD was

64%. Freund and Steketee⁹ reported that although sexual dysfunction was relatively uncommon in OCD subjects, a significant number (73%) have a strong dissatisfaction with their sexuality. The rates in this study are not that high, yet they are clinically significant. Similarly, Lustman and Clouse²³ and Othmer and Othmer²⁴ have reported that GAD has significant association with sexual dysfunction that is in consonance with our findings.

Low sexual desire has frequently been reported with MDD^{22,25-27} as it was reported with the highest mean score in this study. Along with this finding, a considerable number of GAD subjects also reported low desire. It is worth mentioning that the global impact of depression on sexual functioning, as reported by Mathew and Weinman⁷ and found in this study, gives a better account of sexual functioning in MDD subjects. The pervasive affect of psychiatric disorder was observed with GAD and OCD as well. The multinomial factorial logistic regression analysis did

not show association between any diagnoses and particular sexual dysfunction. However, on the basis of the analysis, it may be suggested that MDD and GAD subjects are more likely to have sexual dysfunction than OCD subjects. The difficulty in sustaining penile erection was 1 factor found to be associated with MDD, but this effect could have been due to selection bias.

Anorgasmia is reported to be occurring more commonly in women with OCD than in healthy women¹¹ and in women with GAD.¹⁰ A similar finding was found in this study; OCD subjects had the maximum frequency of orgasmic dysfunction among all the groups. Nevertheless, the severity of orgasmic dysfunction was nearly similar among subjects with OCD, MDD, and GAD. The mentioned studies have reported these findings specifically in female subjects, but statistical analysis of results among female subjects did not find any such association in the study. Although the prevalence of orgasmic dysfunction in women with OCD is greater than that found in healthy women, it is nearly comparable with that found in women with GAD and MDD.

This study was planned to carry out a controlled head-to-head analysis of sexual functioning between the aforementioned groups on an outpatient basis. MDD, OCD, and GAD were chosen for study due to their common presentation in psychiatric clinics, known pervasive affect on a patient's life, and potential for reliable assessment of sexual dysfunctions. Age and gender are commonly controlled factors, but education and marital status were also controlled for better information assortment. It was thought that subjects having similar sexual experiences and similar intellectual capabilities could express themselves better, giving a more meaningful outcome. Study of drug-free subjects provides a consequential outcome to this study as reliable baseline sexual dysfunctions can be obtained. Similarly, by excluding subjects with onset of sexual dysfunction prior to current episode and those with physical conditions known to cause sexual dysfunction, an attempt was made to obtain more unambiguous data.

There are certain inherent limitations with this study. First, the gender ratio obtained due to methodology of sample selection does not match with the epidemiologic rates of MDD, GAD, and OCD. It is well documented that male:female ratio is 1:2 for MDD and GAD and 1:1 for OCD.³ Predominant male representation in the outpatient clinic probably resulted in this selection bias. Second, we tried to control the demographic factors, physical morbidity, and psychiatric morbidity as risk factors for sexual dysfunction. Besides these, there are other innumerable factors that contribute to sexual dysfunction.¹ Third, the cross-sectional nature of this study limits our possibility to explore the cause-and-effect relationship between sexual dysfunction and psychiatric diagnoses. Last, since the data were collected from a specific popu-

lation, the degree to which they represent the general population cannot be commented on.

This study has generated some important outcomes. First, healthy subjects reported considerable sexual dysfunction despite being physically and psychiatrically well. The dysfunction may be due to social and personal factors. Second, MDD subjects have more sexual dysfunction than OCD and GAD subjects in terms of both number and severity. Third, low desire is most prominent in subjects with MDD followed by those with GAD. Fourth, OCD subjects had most reported orgasmic dysfunction, but the severity of orgasmic dysfunction was the same among those with MDD, OCD, and GAD. Fifth, the severity of sexual dysfunction does not depend on the severity of illness. This result has been reported among MDD subjects,²⁸ but the same findings with GAD and OCD are found in this study as well. Last, MDD, OCD, and GAD were found to have a significant global impact on individuals' sexual lives, and, therefore, people with these disorders should be taken care of while receiving treatment.

To conclude, sexual dysfunction occurs commonly in people with MDD, OCD, and GAD. This dysfunction must be explored in detail, even in untreated patients, for optimal patient management.

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