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Comparison of Psychiatric Comorbidities among Male and Female Genders in Bengali Population with Obsessive Compulsive Disorder

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ABSTRACT
Obsessive compulsive disorder (OCD) is a major mental illness where associated psychiatric comorbidities are almost a rule. Gender can explain the pattern of psychiatric comorbidities in OCD, which has important role in determining the overall disease outcome. Very few studies were conducted addressing this issue especially in Bengali population. Current study was planned to permeate this research gap. To evaluate and compare the pattern of psychiatric comorbidities among the male and female gender in Bengali population suffering from OCD. Purposively consented 50 male and 50 female Bengali patients with OCD as per ICD-10, DCR version, between 18-59 years of age, were recruited for the current study. Socio-demographic and clinical data were collected from all patients. Severity of symptoms of OCD and associated psychiatric co-morbidities were assessed by Yale-Brown Obsessive Compulsive Scale (Y-BOCS) and Mini International Neuropsychiatric Interview (MINI) respectively. Male and female groups were statistically significant different in 'marital status', 'type of family', 'family income' 'H/O suicidal attempt(s) in the past', 'H/O hospitalization(s) for psychiatric illness', 'number of suicidal attempts', 'family H/O OCD' and in 'co-morbid physical illnesses' among the socio-demographic and clinical variables included in the current study. Both groups were not significantly different in YBOCS obsession, compulsion, total scores but severity of symptoms in ordinal form (mild/moderate/severe/extreme) was statistically significant different in both groups. Regarding psychiatric comorbidities both groups were different in having comorbid MDE, Agoraphobia, GAD, Dysthymia, Social Phobia, which were found to be statistically significant. Current study found the difference in psychiatric co-morbidities in male and female genders in Bengali patients with OCD. Further research is needed with larger sample to understand and generalize the differential effect of gender on psychiatric co-morbidities and its socio-cultural underpinnings.

INTRODUCTION

Obsessive Compulsive Disorder (OCD) is one of the major psychiatric illnesses especially in Bengali population. Patients with OCD experience repetitive intrusive thoughts, rituals, doubts, unwanted imageries, fear of having of some socially unaccepted acts or impulses from himself and others, with contents which compatible with their own socio-cultural milieu. They also have belief that some of their thoughts and acts are equivalent to some real-life adverse consequences, though they identify their thoughts and beliefs as irrational, absurd but they are irresistible. This kind of thoughts can provoke excessive anxiety and subjective distress and to get relief from this distress they try to do some compensatory mental or motoric acts repeatedly. On account of being remained over-involved in these abnormal thoughts, act and related behavior they experience marked socio-occupational dysfunction and poor quality of life[1,2]. With severe socio-occupational dysfunction and psychological distress they attend to doctors or Psychiatrists to get relief. As a standard practice there are several pharmacological or psycho-social treatment modalities are available for OCD[3]. Treatment outcome of OCD depends on many factors. Among the different clinical and psychosocial factors gender and psychiatric comorbidities are considered to be important determining factors influencing the treatment outcome of OCD[4-6]. In a particular community living with a different socio-cultural background, the social role of the two genders is generally defined from its generative stage. Clinical presentation, manifestation of psychopathology, treatment seeking behavior, treatment adherence and outcome are often significantly dominated by these socio-cultural determinants. Gender also has impact on association with or developing some specific pattern of psychiatric comorbidities in OCD by virtue of its biological as well as socio-cultural (patho-plastic and pathogenic) effects. On the other way associated psychiatric comorbidities in OCD is clinically implicated in diagnosing a case in definitive and differential ways, planning of the individual management protocol and overall disease course and outcome. So, gender difference of different psychiatric comorbidities in OCD is implicated clinically in several ways. But in literature the issue was not addressed much earlier which prompts us to plan for the current study.

MATERIALS and METHODS

The current cross sectional observational study was aimed to examine the gender difference of the psychiatric comorbities among the patients with OCD. The study was conducted at Psychiatry OPD of a tertiary care hospital of Eastern India, among new patients attended at Psychiatry OPD and diagnosed as a case of OCD, according to ICD-10, DCR version[7]. Over one year of duration, purposively total consented 50 cases of male and 50 cases of female of OCD, between 18-59 years of age, who were residing in west Bengal for last 2 generations with Bengali as a vernacular language were recruited for the current study. Those patients having comorbid diagnosis of mental retardation, known organic disorders, chronic major physical illness were excluded from the current study. All patients were assessed once to get their socio-demographic and clinical data, severity of symptoms of OCD by Yale-Brown Obsessive Compulsive Scale (Y-BOCS)[7], data on associated psychiatric co-morbidities by Mini International Neuropsychiatric Interview (MINI)[9]. Research plan was approved by the Institutional Ethics Committee (IEC) of the tertiary care hospital where it was conducted. The data was collected and analyzed by appropriate statistical methods.

RESULTS

To examine the gender difference of the psychiatric co-morbidities in the study sample with patients with OCD, we first examined the differences of the socio-demographic and clinical profile among male and female genders in the study sample. Then the distribution of different psychiatric comorbidities diagnosed by MINI was described among the male and female groups and the total study sample. Then the comparison of the psychiatric comorbidities as per different items of MINI scale, between male and female groups was done.

Table 1 reveals that among the socio-demographic variables included in the current study, there was

Table 1: Comparison of the socio-demographic and clinical variables among the male (n = 50) and female (n = 50) groups

Socio-demographic/clinical variables	'P' value/ 'Chi-square' value
Age	'P' value 0.083
Marital status	'Chi-square' value 26.4784
	'P' value <0.0001**
Religion	'Chi-square' value 0.2079
	'P' value 0.648
Educational status	'Chi-square' value 3.8569
	'P' value 0.6960
Occupational status	'Chi-square' value 11.2755
	'P' value 0.080
Family income	'Chi-square' value13.666
	'P' value 0.033*
Type of family	'Chi-square' value 5.7406
	'P' value 0.016*
Type of resident	'Chi-square' value 3.0476
	'P' value 0.0808
Age at onset of OCD	'P' value 0.095
Duration of OCD	'P' value 0.076
H/O suicidal attempt(s) in the past	'Chi-square' value4.0257
	'P' value 0.044*
Number of suicidal attempts	'Chi-square' value 5.769
	'P' value 0.016*
H/O hospitalization(s) for psychiatric illness in the past	'Chi-square' value 6.8322
	'P' value 0.008*
Family H/O OCD	'Chi-square' value 10.9811
	'P' value 0.0009 **
Family H/O other psychiatric illness	'Chi-square' value1.7777
	'P' value 0.182
Co-morbid physical illness	'Chi-square' value 52.5974
	'P' value<0.0001**

*'p'<0.05; **'p'<0.01; ***'p'<0.005

statistically significant difference was observed in 'marital status', 'type of family' and 'family income' between male and female groups of the study sample. Among the clinical variables male and female groups were statistically significant different in 'H/O suicidal attempt(s) in the past', 'H/O hospitalization(s) for psychiatric illness in the past', 'number of suicidal attempts', 'family H/O OCD' and 'co-morbid physical illnesses'.

Table 2 infers that the male and female groups of the study sample were not statistically significant different in severity of OCD symptoms measured in YBOCS obsession, compulsion, total scores. But when severity of symptoms (total YBOCS scores) was graded in mild/moderate/severe/extreme, then male and female groups were observed to be different which was statistically significant.

Table 3 infers that among the psychiatric co-morbidities as measured in MINI, male group had a greater number of comorbidities in panic episode, agoraphobia, social anxiety than female group. On the other hand, female group had a greater number of comorbidities in MDE, dysthymia, suicidality, hypomanic/manic episode and GAD than male group.

Table 2: Comparison of the Yale-Brown Obsessive-Compulsive Scale (YBOCS) scores among the male (n = 50) and female (n = 50) respondents in the study sample (N = 100)

YBOCS scores	'Chi-square' value/'P' value
YBOCS total obsession score	'P' value 0.446
YBOCS total compulsion score	'P' value 0.022
YBOCS total score	'P' value 0.45
YBOCS severity grading	
Mild (Total score 8-15)	'Chi-square' value 13.3581 and 'P' value 0.003
Moderate (Total score 16-23)	
Severe (Total score 24-31)	
Extreme (Total score 32-40)	

Both male and female groups had no comorbidities of the rest of the psychiatric conditions included in the MINI such as PTSD, alcohol and non-alcohol use disorder, psychotic disorder/mood disorder with psychotic features, eating disorder, ASPD.

Table 4 infers that male and female groups of the current study sample were statistically significant different in having comorbidities of MDE, Agoraphobia, GAD, Dysthymia, Social Phobia.

DISCUSSION

In the present study, among the psychiatric co-morbidities included in MINI, male and female groups were statistically significant different in MDE, Agoraphobia, GAD, Dysthymia, Social Phobia where male group had a greater number of panic episode, agoraphobia, social anxiety than female group and female group had a greater number of MDE, dysthymia, suicidality, hypomanic/manic episode and GAD. Similar kind of results is also reflected on a study done in similar (Bengali) community done by Singh *et al*.[10]. They found that female subjects with OCD had co-morbid MDE, GAD and the percentage is less in male subjects. Cherian *et al*.[11] also found in a study on OCD from a large sample in Indian population, that among the psychiatric co-morbidities male and female groups were statistically significant different in MDE, suicidal risk, social phobia. Social phobia was over represented among men whereas MDE was over represented in women. Suicidal risk was significantly higher in women compared to men. In a different kind of study on a two hundred and sixty-three OCD patients, Lensi *et al*.[12], it was found that male and female groups were statistically significant different in

Table 3: Distribution of psychiatric co-morbidities [as per Mini International Neuropsychiatric Interview (MINI) 5.0.0] in study population

	Number (%)		
Psychiatric Co-morbidities (MINI items)	Male (n = 50)	Female (n = 50)	Total (N = 100)
Major Depressive Episode (MDE)	3 (6)	31 (64)	34 (34)
Dysthymia	1 (2)	7 (14)	8 (8)
Suicidality	24 (48)	30 (60)	54 (54)
Hypomanic/Manic Episode	10 (20)	16 (32)	26 (26)
Panic Episode	1 (2)	0 (0)	1 (1)
Agoraphobia	28 (56)	1 (2)	29 (29)
Social Anxiety	5 (10)	0 (0)	5 (5)
Posttraumatic Stress Disorder (PTSD)	0 (0)	0 (0)	0 (0)
Alcohol Use Disorder	0 (0)	0 (0)	0 (0)
Substance (Non-alcohol) Use Disorder	0 (0)	0 (0)	0 (0)
Psychotic Disorder/Mood Disorder With Psychotic Features	0 (0)	0 (0)	0 (0)
Anorexia nervosa	0 (0)	0 (0)	0 (0)
Bulimia Nervosa/Anorexia Nervosa, Binge Eating/Purging Type	0 (0)	0 (0)	0 (0)
Generalized Anxiety Disorder (GAD)	3 (6)	19 (38)	22 (2)
Antisocial Personality Disorder (ASPD)	0 (0)	0	0

Table 4: Comparison of the psychiatric co-morbidities (as per MINI 5.0.0) among the male (n = 50) and female (n = 50) gender in the study sample (N = 100)

Psychiatric Co-morbidities (MINI items)	'Chi-square' value	'P' value
Major Depressive Episode (MDE)	'Chi-square' value 34.937	'P' value <0.0001***
Dysthymia	'Chi-square' value 4.8913	'P' value 0.026*
Suicidality	'Chi-square' value 1.4492	'P' value 0.228
Hypomanic/Manic Episode	'Chi-square' value 1.8711	'P' value 0.171
Panic Episode	'Chi-square' value 0.9901	'P' value 0.319
Agoraphobia	'Chi-square' value 36.020	'P' value <0.0001***
Social Anxiety	'Chi-square' value 5.2631	'P' value 0.021*
Generalized Anxiety Disorder (GAD)	'Chi-square' value 14.9184	'P' value 0.0001***

* 'P'<0.05; ** 'P'<0.01; *** 'P'<0.005

panic disorder after the onset of OCD. On the contrary in another study Khandelwal *et al*.[13] showed that there was no statistically significant gender different in co-morbidity of OCD with psychosis, depression, dysthymia, agoraphobia, social phobia, tic disorder, trichotillomania, panic disorder, hypochondriasis and sexual disorder. However, the frequency of depression was higher in females than in males. Tripathi *et al*.[6] in a multicentric study in Indian population found that male and female groups were statistically significant different in social anxiety disorder, somatic symptoms disorder (somatic symptoms and illness anxiety) and trichotillomania. They also found that substance use disorders (alcohol and cannabis) were significantly more common among males, while agoraphobia was commoner among females. The findings were quite different from the findings of the current study. If we observe the difference of the socio-demographic and clinical profile of the patients of OCD as a whole and separately for both male and female groups from the both studies, it can help us to explain the contrast-observation on gender-differences of the psychiatric co-morbidities from the two studies.

CONCLUSION

The result of the current study reveals a consistent finding on gender-differences in psychiatric co-morbidities in patients with OCD in the background of some differential observation on socio-demographic and clinical profile among two genders. In clinical assessment of patient of OCD, we should be vigilant enough to search for those psychiatric comorbid illnesses with their gender preponderance and address them accordingly to expect a favorable outcome of the disease.

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