ORIGINAL ARTICLE

Prevalence of Obsessive-Compulsive Disorder (OCD) Among Bipolar Patients at El-Hussein University Hospital

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Abstract

Background: ***Comorbidity between obsessive-compulsive disorder (OCD) and bipolar disorder (BD) makes the presentation and management of both disorders more challenging.***

Aim and objectives: ***Raising awareness and providing better healthcare for those with Obsessive-Compulsive Disorder and Bipolar Disorder in Egypt is our primary goal.***

Subjects and methods: ***This study (a cross-sectional study) was conducted at the psychiatry department at Al-Hussein University Hospital. The current study included 110 patients with bipolar disorder attending Al Hussein University Hospital Department of Psychiatry.***

Result: ***The percentage of OCD patients in the studied BD population was 26.4%, with a high percentage in the depressive episodes, constituting about 62.1%, followed by 27.6% in the mixed episodes. Twenty patients (72.4%) had OCD symptoms that were either increased during the depression phase (i.e., there was no inter-episode remission) or were limited to the depressive episodes only (i.e., there was inter-episode remission).***

Conclusion: ***According to our results, this study highlights the prevalence of obsessive-compulsive disorder (OCD) among bipolar disorder (BD) patients and sheds light on the significant clinical burden.***

Keywords: OCD (obsessive-compulsive disorder); Bipolar; Prevalence

1. Introduction

Manic or hypomanic episodes, interspersed with depressive episodes, are the hallmarks of bipolar disorder, a long-term mood condition.[1]

Those who suffer from obsessive-compulsive disorder (OCD) often find themselves caught in a vicious cycle of intrusive thoughts (obsessions) and excessive, repetitive actions (compulsions) carried out in an attempt to pacify or eliminate these obsessions. Contamination, injury, order/symmetry, and reprehensible sexual or blasphemous obsessional thoughts accompanied by mental compulsions and other hidden methods to counteract the notion are common themes in the compulsions and obsessions.[2]

When it comes to diagnostic criteria, neurobiology, and treatment methods, bipolar disorder (BD) and obsessive-compulsive disorder (OCD) are completely separate clinical entities. Despite this, there is strong evidence that the incidence of OCD in patients whose main diagnosis is BD is much higher than the prevalence of OCD overall.[3]

A higher frequency of related depressive episodes, a more episodic course, and increased treatment resistance are characteristics of the atypical clinical course seen in patients presenting with OCD and BD. There has been some discussion about whether OCD is a distinct disorder that occurs in conjunction with bipolar disorder or if it is a symptom of bipolar disorder that shares the same psychopathology.[4]

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A large percentage of people with borderline personality disorder (BD) also have obsessive-compulsive disorder (OCD), with rates reaching 21% in mostly bipolar patients and 11% to 18% overall (depending on the authors). On the other side, BD is a secondary mental diagnosis in 23% of OCD patients, which accounts for 60% of all secondary diagnoses.[5]

Raising awareness and providing better healthcare for those with Obsessive-Compulsive Disorder and Bipolar Disorder in Egypt is the primary goal of this research.

2. Patients and methods

The psychiatric department of Al Hussein University Hospital was the site of this cross-sectional investigation. One hundred and ten individuals with bipolar illness who visited the psychiatry department at Al-Hussein University Hospital were included in the present study..

Inclusion criteria:

Participant ages range from eighteen to sixty-five, and all participants must meet the DSM-IV criteria for bipolar disorder in addition to being willing to participate in the study.

Exclusion criteria:

Being under the age of 18 or over the age of 60, meeting the diagnostic criteria for organic brain disease, drug/alcohol abuse, and intellectual disability as outlined in DSM-IV.

The following were administered to all patients: Comprehensive patient history taking, physical examination, DSM-IV-based structured clinical interview (SCID-1), and Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) to measure OCD.

Statistical analysis:

Application software version 20.0 of IBM's Statistical Package for the Social Sciences (SPSS) was used for data analysis. Quantitative and qualitative data were characterized by percentages and counts. The distribution was checked for normalcy using the Shapiro-Wilk test. Range (including minimum and maximum), mean, standard deviation, median, and interquartile range (IQR) were used to represent quantitative data. At the 5% threshold of significance, the results were evaluated.

3. Results

The current study included 110 patients with bipolar disorder attending Al-Hussein university hospital department of Psychiatry; average age of the individuals is 33.2 years, with a relatively narrow age range as indicated by the standard deviation of 7.64 years. In terms of gender distribution, there's a slightly higher representation of males, constituting 55.6% of the sample compared to 44.4% females.

Table 1. Demographics among the study population.

ITEMS	N(%)110
AGE (YEARS)	
(MEAN±SD)	33.2±7.64
SEX	
MALE	61(55.6)
FEMALE	49(44.4)
FAMILY HISTORY OF PSYCHIATRIC DISORDERS	
+VE	66(60)
-VE	44(40)

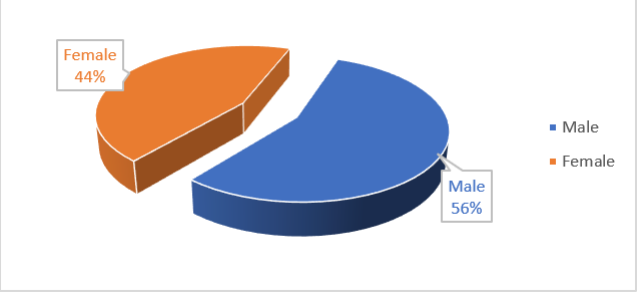

Figure 1. Sex of the studied population.

Table 2. Clinical characteristics of the study population.

BIPOLAR TYPE			
BD TYPE I			31(28.2)
BD TYPE II			79(71.8)
ONSET OF DISEASE AGE (BIPOLAR)(YEARS)			
(MEAN±SD)			23±3
MEAN DURATION OF ILLNESS (YEARS)			
(MEAN±SD)			10.7±2.1
NUMBERS OF EPISODES			
(MEAN±SD)			4±1
TYPE OF EPISODE			
	Depressive N(%)	Mixed Episode N(%)	Mania/Hypomanic N(%)
BD TYPE Ì	5	4	22
BD TYPE ÌÌ	48	31	0
TOTAL	53(48.2)	35(31.8)	22(20)

BD type ÌÌ constituted (71.8%) which was higher than type Ì that constituted (28.2%), The mean onset age for bipolar disorder is 23±3 years, indicating a relatively young onset, The mean±SD duration of disease (years) is provided as 10.7±2.1, which should be compared to existing literature to understand its implications better. The mean number of episodes of the studied population is 4±1, The distribution of episode types reveals that the majority of bipolar disorder patients experience depressive episodes (48.2%), followed by mixed episodes (31.8%) and manic/ hypomanic episodes (20%).

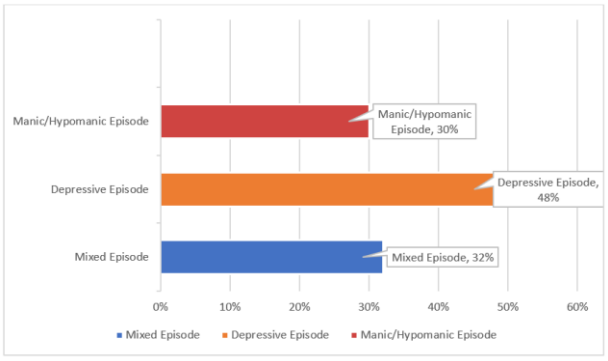

Figure 2. Different Episodes in the studies population.

Table 3. Comorbid OCD and comparison of demographic between patient groups with and without comorbid OCD.

ITEMS	BD WITHOUT OCD		BD WITH OCD [N (%)]		P VALUE
TOTAL N (%)	%	n	%	n	
	73.6	81	(26.4)	29	
AGE (MEAN±SD) (YEARS)	30.84±10.682		36.56±11.642		0.181
OCCUPATION					0.03*
EMPLOYED	(18.5)	15	(17.2)	5	
NOT	(81.5)	66	(82.8)	24	
FAMILY HISTORY OF PSYCHIATRIC DISORDERS					0.002*
+VE	30.9	25	(86)	25	
-VE	69.1	56	(14)	4	

A comparison of people with bipolar disorder (BD) and those with obsessive-compulsive disorder (OCD) reveals interesting similarities and differences.. A significantly greater familial history of psychiatric disorders (86% versus 30.9%), and marginally lower employment rates (17.2% versus 18.5%). Although the BD with OCD group is older on average, this age difference is not statistically significant. These findings highlight the association of BD with OCD with specific sociodemographic and familial factors.

Table 4. Comorbid Obsessive-Compulsive Disorder (OCD) and comparing clinical features of patient groups with and without comorbid OCD.

	BD WITHOUT OCD		BD WITH OCD		P
TYPE OF BD `	N	%	N	%	
BD-I	65	(80.2%)	19	(65.5%)	0.05*
BD-2	16	(19.8%)	10	(34.5%)	
AGE AT ONSET OF BD	28.4±7.1		19.6±6.2		0.0001*
NUMBER OF PREVIOUS EPISODES					
MDE	2.8±1.2		4.2±1.5		0.02*
HYPOMANIC/MANIC	3.5±1.4		3.1±1.3		0.25
MIXED	1.8±0.9		2.5±1.1		0.03
MOST RECENT EPISODE					0.12
MDE	30	(37.0%)	15	(51.7%)	
HYPOMANIC/,ANIC	41	(50.6%)	10	(34.5%)	
MIXED	10	(12.4%)	4	(13.8%)	
HISTORY OF SUICIDAL ATTEMPTS	22	(27.2%)	12	(41.4%)	0.05
PHARMACOLOGICAL (HYPO)MANIC SWITCH	14	(17.3%)	8	(27.6%)	0.14

This table shows that, Group 1 has a higher proportion of BD-I cases (80.2% vs. 65.5%, *p=0.05*), while group 2 has more BD-II cases (34.5% vs. 19.8%). The onset of BD is significantly earlier in group 2(19.6±6.2 years vs. 28.4±7.1 years, *p=0.0001*). Group 2 also experiences more major depressive episodes (4.2±1.5 vs. 2.8±1.2, *p=0.02*) and mixed episodes (2.5±1.1 vs. 1.8±0.9, *p=0.03*), though there is no significant difference in hypomanic/manic episodes. A higher percentage of group 2 has a history of suicidal attempts (41.4% vs. 27.2%, *p=0.05*), while pharmacological (hypo)manic switches are more frequent but not significant (27.6% vs. 17.3%, *p=0.14*). These findings suggest that group 2 exhibits earlier onset, greater depressive severity, and higher suicidal risk, emphasizing the need for tailored management strategies.

4. Discussion

Studies show that people with bipolar disorder (BD) are more likely to suffer from Obsessive-Compulsive Disorder (OCD) than the general population. OCD and BD often occur together. For example, around 16.3% of people with BD display symptoms comparable to obsessive-compulsive disorder (OCD), according to the research.[6]

The importance of this link lies in the potential impacts of comorbidity on the phenotype of each condition and in the effect of the treatment. Moreover, it is important to look at the additional burden placed on healthcare resources.[7]

We aimed to improve the quality of services and awareness about OCD Disorder and Bipolar Disorder in Egypt.

The study was conducted at the psychiatry department at Al-Hussein University Hospital. The current study included 110 patients; the average age of the individuals is 33.2 years, with a relatively narrow age range as indicated by the standard deviation of 7.64 years. In terms of gender distribution, there's a slightly higher representation of males, constituting 55.5% of the sample compared to 54.5% females. Marital status varies within the group, with a majority being single (54%), followed by married individuals (37%), and smaller percentages of divorced (6%) and widowed (3%) individuals. Lastly, 60% of the study population had a history of previous family history.

In the current study, BD type 1 constituted

81%, which was higher than type 2, which constituted 19%. The mean onset age for bipolar disorder is 23±3 years, indicating a relatively young onset. The mean±SD duration of disease (years) is provided as 10.7±2.1, which should be compared to existing literature to understand its implications better. The mean number of episodes of the studied population is 4±1

According to Koyuncu et al.,[6] The following characteristics were not different between bipolar patients with and without comorbid OCD: age, gender, education, marital status, personality traits, speed of cycling or psychotic symptoms, history of suicide attempts, type of initial bipolar episode (depressive or manic), or the most common episode type throughout the disorder's course.

Similar to our results, Ozdemiroglu et al.,[8] found that BD-OCD patients tended to have an earlier age at onset of BD (23.9% vs. 29.2%) and an earlier age at onset of BD relative to the age at which OCD symptoms first appeared (23.9% vs. 30).

Similarly, Jeon et al.,[9] found that patients with BD-OCD exhibited an earlier age at onset when compared to those with BD.

In terms of the average age of BD, there were no statistically significant variations when comparing the clinical features of patients with and without comorbid OCD.[6]

In Kazhungil et al.,[10] In the study, there was no discernible difference in the age at which BD was first experienced by patients with BD-OCD and those with BD.

In the study of Saraf et al.,[11] in terms of the age at which OCD symptoms first appeared, no significant difference was observed between OCD-BD and OCD patients.

We found that compared to BD patients without OCD, those with BD and OCD were more likely to have a favourable family history.

Similar to our results, Bener et al.,[12] discovered that among both OCD and BD patients, the proportion with a family history of the disorder was considerably greater (p=0.030).

Shashidhara et al.,[13] came across a comparison. Compared to BD patients, first-degree relatives of BD-OCD patients had a higher rate of obsessive-compulsive disorder (6.7% vs.0.3%, p=0.02).

According to Zutshi et al.,[14] Patients with BD-OCD were more likely to have a family history of mood disorders (36% vs. 6%).

Furthermore, compared to non-BD-OCD patients, people with BD-OCD were less likely to have a family history of OCD (0.0% vs. 21%).

Depressive episodes were the most common, affecting 62.1% of this group, with 24.1% experiencing mild and 37.9% experiencing moderate to severe episodes. Mixed episodes occurred in 27.6% of participants, evenly split between mild and moderate to severe (13.8% each), while manic or hypomanic episodes were the least frequent, seen in 10.3% of participants (6.9% mild and 3.4% moderate to severe).

Also, Tonna et al.,[15] revealed that the distribution of episode types reveals that the majority of bipolar disorder patients experience depressive episodes (38.2%), followed by mixed episodes (31.8%) and manic/ hypomanic episodes (30%). This aligns with the common clinical observation that depressive episodes often predominate in bipolar disorder.

A study by Mahasuar et al.,[16] found that among OCD patients with BD, there was a statistically significant increase in the total number of depressive episodes, as well as severe depressive episodes and episodes of psychotic depression. Their results don't line up with ours because of the disparity in sample sizes; we randomly selected our OCD patients, and only nine of them had a secondary diagnosis of BD, whereas their initial sample comprised 34 patients with BD and OCD.

Shabani & Alizadeh,[17] found that compared to patients without BD-OCD, those with the disorder had lower rates of contamination obsessions (64.1%), higher rates of aggressive obsessions (35.9% vs. 7.7%), and more sexual obsessions (87.2% vs. 0.0%).

Shashidhara et al.,[13] found that the occurrence of psychotic symptoms was substantially lower in BD-OCD patients compared to BD patients overall (53.6% vs. 30%, p=0.01). Tukel et al.,[18] found that compared to patients without BD-OCD, those with comorbid BD and OCD had lower rates of somatic obsessions (7.7% vs. 14.3%), higher frequencies of symmetry/exactness obsessions (73.1% vs. 40.8%), and ordering/arranging compulsions (61.5% vs. 36.7%).

Due to the increased likelihood of suicide attempts caused by OCD symptoms or BD (manic or depressive episode), the current study found that the rate of suicidality was higher in OCD patients co-morbid with BD (44.4%) compared to those without BD (7.8%).

Di Salvo et al.,[19] showed that when comparing the incidence of lifetime suicide attempts across BD patients with and without comorbid OCD, no significant differences were identified. More patients in the BD-OCD group attempted suicide violently (48.3% vs. 28.7%), and there was a link between male gender, comorbid OCD, and violent suicide attempts.

Domingues-Castro et al.,[20] The researchers found that patients with OCD-BD were more likely to have suicidal thoughts, intentions, and attempts than those with OCD alone. The odds ratios for these three variables were 2.08 (95%

CI=1.26-3.43), 2.80 (95% CI=1.66-4.72), and 2.64 (95% CI=1.41-4.91).

Fineberg et al.,[21] discovered that patients exhibiting both OCD and BD were more likely to report suicide attempts than those exhibiting only OCD (OR=10.38; 95% CI: 3.14-34.35).

Centorrino et al.,[22] Patients with BD-OCD had re-hospitalization rates that were similar to those with BD alone, but 2.9 times higher than those without comorbidity.

Kim et al.,[23] During the 24-month trial period, BD-I-OCD patients had a significantly higher rate of hospitalization compared to BD-I patients (54.2% vs. 35.3%).

When it came to ruminations, BD patients without OCD had an average score of 28.20±5.906, while those with OCD had a score of 24.44±9.449 (p=0.116). There was no significant difference in the prevalence of sexual obsessions between BD patients with and without OCD (9.47±5.700 vs. 7.22±4.522), while the difference was still there (p=0.267). There were also no statistically significant variations in the groups' mean ratings for other obsessions, including violent, religious, cleaning, impulsive, and visual obsessions.

Prior research has shown that individuals with BD who experience Obsessive-Compulsive Disorder (OCD) are more likely to engage in obsessions and compulsions connected to specific topics, such as religion, sexuality, and symmetry.[24]

There was not a statistically significant distinction between the two groups; however, we did find that 55.6% of OCD patients with BD and 66.7% of those without BD had severe OCD symptoms at the time of assessment.

Other research has shown that BD patients often experience intense and persistent obsessions or compulsions during manic episodes, but these go away during depressive or mixed episodes, or even euthymia.[25]

Their results differ from ours (as we found severe OC symptoms in both groups); the difference may be attributed to the different sample size, as they included 605 patients, and the difference in the methods used to assess impairment.

Severity of depression

Using the Hamilton scale, we found that most OCD patients (77.78% with BD and 76.5% without BD) also suffered from severe depression. When looking at the degree of depression that came with the condition, neither group differed significantly from the other.

In contrast, results by Mahasuar et al.,[16] discovered that those with OCD who also suffered from BD had a much higher rate of depressive episodes overall, as well as more severe episodes of depression and psychotic episodes. Their results don't line up with ours because of the disparity in sample sizes; we randomly selected our OCD patients, and only nine of them had a secondary diagnosis of BD, whereas their initial sample comprised 34 patients with BD and OCD.

4. Conclusion

Our findings support the idea that OCD is common among people with bipolar disorder (BD), and that the clinical impact of this comorbidity is substantial.

Disclosure

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Authorship

All authors have a substantial contribution to the article

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Conflicts of interest

There are no conflicts of interest.

References

1. Müller-Oerlinghausen B, Berghöfer A, Bauer M. Bipolar disorder. Lancet. 2002;359(9302):241-247.
2. Fenske JN, Petersen K. Obsessive-Compulsive Disorder: Diagnosis and Management. Am Fam Physician. 2015;92(10):896-903.
3. Braverman L, Fuchs C, Weizman A, et al. Rate of OCD and sub-threshold OCD in bipolar disorder patients with first depressive episode. Psychiatry Res.2021;302:114010.
4. Ezzat M, Younis MA, Khalil MA, et al. Obsessions and suicidality in youth suffering from bipolar I disorder. Middle East Curr Psychiatry.2023; 30(82):(2023).
5. Gaetano R, de Filippis R, Segura-Garcia C, et al. Impact of Bipolar Disorder and Obsessive-Compulsive Disorder Comorbidity on Neurocognitive Profile: A Mini-Review. Psychiatr Danub. 2020;32(3-4):346-350.
6. Koyuncu A, Tükel R, Ozyildirim I, et al. Impact of obsessive-compulsive disorder comorbidity on the sociodemographic and clinical features of patients with bipolar disorder. Compr Psychiatry. 2010;51(3):293-297.
7. Abouhendy W, Youssef UM, El-Deen GMS. Bipolar disorder among patients with obsessive–compulsive disorder at Zagazig University Hospitals. Egyptian Journal of Psychiatry. 2018;39(1):5-14.
8. Ozdemiroglu F, Sevincok L, Sen G, et al. Comorbid obsessive-compulsive disorder with bipolar disorder: A distinct form?. Psychiatry Res. 2015;230(3):800-805.
9. Jeon S, Baek JH, Yang SY, et al. Exploration of comorbid obsessive-compulsive disorder in patients with bipolar disorder: The clinic-based prevalence rate, symptoms nature and clinical correlates. J Affect Disord. 2018;225:227-233.
10. Kazhungil F, Cholakottil A, Kattukulathil S, et al. Clinical and familial profile of bipolar disorder with and without obsessive-compulsive disorder: an Indian study. Trends Psychiatry Psychother. 2017;39(4):270-275.
11. Saraf G, Paul I, Viswanath B, et al. Bipolar disorder comorbidity in patients with a primary diagnosis of OCD. Int J Psychiatry Clin Pract. 2017;21(1):70-74.

12. Bener A, Dafeeah EE, Abdulla MA, et al. Comorbid obsessive-compulsive disorder and bipolar disorder in a highly endogamous population: Which came first? Int. J. Cult. Ment. Health. 2016;9:407–413.
13. Shashidhara M, Sushma BR, Viswanath B, et al. Comorbid obsessive compulsive disorder in patients with bipolar-I disorder. J Affect Disord. 2015;174:367-371.
14. Zutshi A, Kamath P, Reddy YC. Bipolar and nonbipolar obsessive-compulsive disorder: a clinical exploration. Compr Psychiatry. 2007;48(3):245-251.
15. Tonna M, Trinchieri M, Lucarini V, et al. Pattern of occurrence of obsessive-compulsive symptoms in bipolar disorder. Psychiatry Res. 2021;297:113715.
16. Mahasuar R, Janardhan Reddy YC, Math SB. Obsessive-compulsive disorder with and without bipolar disorder. Psychiatry Clin Neurosci. 2011;65(5):423-433.
17. Shabani A, Alizadeh A. The specific pattern of obsessive compulsive symptoms in patients with bipolar disorder. J. Res. Med. Sci. 2008;13:48–54.
18. Tükel R, Meteris H, Koyuncu A, et al. The clinical impact of mood disorder comorbidity on obsessive-compulsive disorder. Eur Arch Psychiatry Clin Neurosci. 2006;256(4):240-245.
19. Di Salvo G, Pessina E, Aragno E, et al. Impact of comorbid obsessive-compulsive disorder on suicidality in patients with bipolar disorder. Psychiatry Res. 2020;290:113088.
20. Domingues-Castro MS, Torresan RC, Shavitt RG, et al. Bipolar disorder comorbidity in patients with obsessive-compulsive disorder: Prevalence and predictors. J Affect Disord. 2019;256:324-330.
21. Fineberg NA, Hengartner MP, Bergbaum C, et al. Lifetime comorbidity of obsessive-compulsive disorder and sub-threshold obsessive-compulsive symptomatology in the community: impact, prevalence, socio-demographic and clinical characteristics. Int J Psychiatry Clin Pract. 2013;17(3):188-196.
22. Centorrino F, Hennen J, Mallya G, et al. Clinical outcome in patients with bipolar I disorder, obsessive compulsive disorder or both. Hum Psychopharmacol. 2006;21(3):189-193.
23. Kim SW, Berk L, Kulkarni J, et al. Impact of comorbid anxiety disorders and obsessive-compulsive disorder on 24-month clinical outcomes of bipolar I disorder. J Affect Disord. 2014;166:243-248.
24. Masi G, Berloffa S, Mucci M, et al. A NATURALISTIC EXPLORATORY STUDY OF OBSESSIVE-COMPULSIVE BIPOLAR COMORBIDITY IN YOUTH. J Affect Disord. 2018;231:21-26.
25. Gordon A, Rasmussen SA. Mood-related obsessive-compulsive symptoms in a patient with bipolar affective disorder. J Clin Psychiatry. 1988;49(1):27-28.