Examining prodrome symptoms of bipolar disorder in young adult patients with obsessive compulsive disorder

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SUMMARY

Objective: Obsessive-Compulsive Disorder (OCD) and Bipolar Disorder (BD) frequently co-occur. While several studies suggest a temporal and clinical relationship between the two disorders, little is known about the presence of prodrome BD symptoms in individuals with OCD. This study aimed to examine whether young adults diagnosed with OCD exhibit elevated levels of prodrome symptoms of BD compared to psychiatrically healthy controls.

Method: A total of 66 participants aged 18–25 were included: 31 with a diagnosis of OCD and 35 healthy controls. Bipolar prodrome symptoms were assessed using Bipolar Prodrome Symptom Scale (BPSS). Yale-Brown Obsessive Compulsive Scale (Y-BOCS), Hamilton Depression Rating Scale (HDRS), and Young Mania Rating Scale (YMRS) were also administered. Group differences were analyzed using Mann-Whitney U test; associations between OCD severity and prodromal symptoms were examined using Spearman correlation.

Results: OCD participants demonstrated significantly higher scores on both the frequency ($U = 251.50$, $p < .001$, rrb $= .60$) and severity ($U = 203.50$, $p < .001$, rrb $= .62$) subscales of BPSS compared to control group. In the total sample, OCD symptom severity was moderately correlated with BPSS severity ($r = .58$, $p < .001$) and frequency ($r = .53$, $p < .001$). However, within the OCD group alone, these correlations did not reach statistical significance. When Expectation Maximization correction was applied, similar association patterns were observed.

Discussion: This is one of the first studies in the literature investigating BD prodrome symptoms in young adult OCD patients. Young adults with OCD exhibit elevated levels of bipolar prodrome symptoms relative to healthy individuals. The absence of within-group correlations and the cross-sectional design limit causal interpretation. Clinicians should consider monitoring prodrome bipolar symptoms in OCD patients, particularly during the late adolescent and early adult years. Future studies with larger sample sizes are needed to confirm the reliability and validity of the findings.

Key Words: Obsessive compulsive disorder, bipolar disorder, bipolar prodrome symptom

INTRODUCTION

Studies on the antecedents of a mental illness and the spectrum of mental disorders have attracted increasing attention in recent years. A large-scale cohort study shows that individuals diagnosed with OCD or BD for the first time are at risk for the subsequent development of both disorders. The study found that the risk of BD was 13 times higher in individuals with OCD. Moreover, individuals who initially receive an OCD diagnosis have a higher likelihood of later being diagnosed with BD compared to those who are first diagnosed with BD and later develop OCD. When the effect of SSRI use was controlled for, the risk of developing BD after an OCD diagnosis decreased but did not disappear completely. (1).

Although BD is considered a common comorbidity in OCD patients, the significance of this comorbidity is not fully understood. The uncertainty lies in whether the high comorbidity reflects the frequent co-occurrence of two independent disorders or the manifestation of certain symptoms of a different disorder (2). One study viewed this situation as OCD being a precursor to BD (3). Some researchers propose that BD may underlie OCD (4) and that certain cases of OCD should be recon-

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sidered as BD (5). Furthermore, it has been proposed that OCD is etiologically associated with BD and may function as an independent risk factor for its onset. (1). Moreover, a significant inverse relationship has been observed between age and OCD-BD comorbidity (6), with higher comorbidity rates observed in younger individuals compared to adults (2). Therefore, it has been posited that early OCD symptoms may indicate a predisposition to BD in later years; however, these symptoms tend to decrease as individuals transition into adulthood (7).

Understanding the comorbidity of OCD and BD is crucial for both nosology and clinical practice. More robust evidence regarding the comorbidity of BD and OCD is needed to provide a clearer clinical diagnosis and enable more accurate therapeutic approaches (8). The literature, particularly concerning the comorbidity of BD in individuals with OCD as the primary diagnosis, remains limited (9). Moreover, due to the high risk of severe illness symptoms and significant functional impairment in individuals with OCD-BD comorbidity, it is vital to screen OCD patients for BD (10).

It is proposed that although insufficient in terms of frequency, severity, or duration to diagnose BD, certain prodrome symptoms exist that indicate a high risk for the subsequent transition to BD (11). Anxiety symptoms have emerged as a risk factor in studies examining prodrome BD symptoms (12, 13, 14). In this context, Du and colleagues emphasized that examining prodrome symptoms emerging as anxiety could have significant implications for the treatment and course of BD. Their study suggested that anxiety disorders, including OCD, may be part of the prodromal phase or an atypical presentation of BD (15).

In light of the existing literature, this study seeks to explore the association between OCD and prodrome symptoms of BD, aiming to address the question: "Do individuals with OCD exhibit more prodrome features of BD compared to those without OCD?". The study aims to screen for bipolar prodrome symptoms in young adult OCD patients. The following hypotheses have been developed in line with this aim:

Hypothesis 1: OCD patients exhibit significantly higher levels of bipolar prodrome symptoms compared to healthy individuals.

Hypothesis 2: There is a significant positive correlation between OCD scores and bipolar prodrome symptom scores.

In this study, the focus is on young adult OCD patients, with particular attention to the potential overlap in the occurrence of OCD and BD, given that BD typically emerges during late adolescence or early adulthood (16, 17) and that comorbidity between OCD and BD has been observed during this period (2, 6, 7). Additionally, this study represents, to our knowledge, the first direct investigation of the prodrome symptoms of BD in OCD, differentiating it from Du et al.'s (15) study. While Zutshi et al. discussed temporal precedence in diagnosis (3), the relationship between the transition from OCD to BD was not examined. Thus, the results of this study will offer valuable insights for both theoretical understanding and clinical application.

METHODS

Participants

The study group consisted of patients diagnosed with OCD between the ages of 18-25 who were followed up in a single private psychiatric outpatient clinic. Patients between the ages of 18-25 who applied to the clinic between December 2021 and May 2022 were evaluated by psychiatric physician M.Y. according to the semi-structured DSM 5 criteria and patients diagnosed with OCD were included in the study. The clinical state of OCD participants (i.e., whether they were in active symptomatology or remission) was not assessed at the time of evaluation. All participants had a current diagnosis of OCD and were undergoing treatment, but symptom severity at the time of assessment was not formally recorded. Absence of psychiatric disorders in the control group was established via self-report and supported by low scores on clinician-administered and self-report scales used in the study. Consent form and scales were administered to the patients in the presence of M.O. The control

group consisted of individuals between the ages of 18 and 25 who did not have symptoms of psychiatric disorder during the same time period. Exclusion criteria were the presence of another psychiatric comorbidity in the patient group and a family history of bipolar disorder. Exclusion criteria for the control group were the presence of any psychiatric disorder symptoms in addition to these. Participation in the study was voluntary.

Measurement Tools

Bipolar Prodrome Symptom Scale (BPSS): The scale developed by Correll and colleagues in 2014 for screening and detecting early symptoms of bipolar disorder has a Cronbach's alpha coefficient ranging from 0.74 to 0.89 (18). The reliability and validity of the scale in Turkish were examined by Aydemir and colleagues (19). The scale is a 6-point Likert type, consisting of 14 items, each rated from 0 to 5. It is scored separately for the severity and frequency subscales. A score of 17 or higher on the frequency subscale and 39 or higher on the severity subscale indicate a risk for bipolar disorder. The Cronbach's alpha coefficient for the scale was calculated as 0.969 for the frequency subscale and 0.979 for the severity subscale. In the present study, the Cronbach's alpha values were found to be 0.875 for the severity subscale and 0.896 for the frequency subscale.

Hamilton Depression Rating Scale (HDRS): This scale, developed by Hamilton (20) to measure the severity of depression symptoms, had a Cronbach's alpha internal consistency coefficient of 0.75 and test-retest reliability of 0.85 according to the Turkish validity and reliability study (21). It consists of 17 items and is rated by an expert. The rating uses a 5-point Likert scale, with scores ranging from 0 to 4. A score between 0 and 7 indicates the absence of depression, a score between 8 and 15 indicates minor depression, and a score of 16 or higher indicates major depression. In the present study, the Cronbach's alpha value was found to be 0.793.

Young Mania Rating Scale (YMRS): This is an 11-item, 5-point Likert scale developed by Young and colleagues (22) to measure the severity of manic episodes. The scale's Turkish validity and reliability were evaluated by Karadağ and colleagues (23), and it has an internal consistency coefficient of 0.79. In the present study, the Cronbach's alpha value was found to be 0.608.

Yale-Brown Obsession-Compulsion Scale (Y-BOCS): The scale developed by Goodman and colleagues (24) was adapted for Turkish by Karamustafalıoğlu and colleagues in 1993 (25). The Cronbach's alpha coefficient was calculated as 0.81. It is a 19-item, 5-point Likert scale in a semi-structured interview format, used to assess the severity and type of obsessive-compulsive symptoms. In the present study, the Cronbach's alpha value was found to be 0.969.

Data Collection

After obtaining the necessary permissions from the Ethics Committee of Antalya Bilim University, data collection commenced. The control group was selected through convenience sampling, while individuals aged 18-25, diagnosed with OCD and receiving treatment at Private Therapy Medicine Center in Antalya between December 2021 and May 2022, were contacted for the OCD group. To obtain participants' voluntary consent and provide information about the study and their rights, an Informed Consent Form was first provided. Those who agreed to participate were given the Demographic Information Form and the self-report scale, the Bipolar Prodrome Symptom Scale (BPSS). Subsequently, the HDRS, the YMRS, and the Y-BOCS, administered by a clinician, were completed. The Turkish versions of the scales, for which validity and reliability tests had been conducted, were used in the study. Completing the scales and conducting the interviews took approximately 50 minutes.

Statistics

The analysis of the data was performed using IBM SPSS Statistics 26. First, To explore the demographic characteristics of the participants, frequency and percentage analyses were conducted. The chi-square test or Fisher's exact test was used to compare categorical variables. Since the study has

Table 1. Distribution and comparison of sociodemographic characteristics

	OCD Group (n = 31) n (%)	Control Group (n = 35) n (%)	p
Gender			0,496*
Female	20 (64.5)	19 (54.3)	
Male	11 (34.5)	16 (45.7)	
Educational Level			0,437**
Middle School	4 (12.9)	0 (0)	
High School	11 (35.5)	25 (71.4)	
Associate degree	1 (3.2)	1 (2.9)	
Bachelor's Degree	15 (48.4)	7 (20)	
Master's Degree	0 (0)	2 (5.7)	
Student			0,853*
Yes	14 (45.2)	23 (65.7)	
No	17 (54.8)	12 (34.3)	
Employment			0,853*
Yes	14 (45.2)	15 (42.9)	
No	17 (54.8)	20 (57.1)	
Type of Treatment			
Medication	19 (61.3)	0 (0)	
Psychotherapy	3 (9.7)	0 (0)	
Medication and Psychotherapy	9 (29)	0 (0)	
None	0 (0)	35 (100)	
	Mean–SD	Mean–SD	
Age	22,71–2,64	21,51–2,63	0,058***

* Chi-square test ** Fisher s exact test *** Mann-Whitney U

a limited sample size, it was important to assess the distribution of the dependent variables in order to select an appropriate statistical method. Therefore, the assumption of normality was tested, and a normality test was applied. Based on the Shapiro-Wilk test results, the distributions were found to deviate from normality. Thus, in order to analyze the differences in bipolar prodrome scores between the OCD and healthy groups, the non-parametric Independent Samples Mann-Whitney U Test was used. Effect sizes were calculated as rank-biserial correlations using the formula. The Spearman Correlation Test was applied to examine the relationship between OCD scores and bipolar prodrome scores. When variables are measured within a restricted range, the resulting correlations are expected to be attenuated compared to those observed in the general population due to this limitation in score variability (26). A key issue in the present study concerns the estimation of the correlation between OCD symptoms and bipolar prodrome symptom scores based on a restricted sample, specifically when analyses are conducted exclusively within the OCD group. Correction methods exist to address such range restriction (27). In this study, a missing data approach was employed: maximum likelihood estimates via the Expectation-Maximization (EM) algorithm were applied specifically to the bipolar prodrome scores of the control group. The EM procedure was utilized to impute missing values on the frequency and severity subscales of the BPSS within the control group. These corrected scores were used only in the correlation analyses involving the OCD group, while analyses of the total sample relied on the original data.An alpha level of 0.05 was set for all statistical tests.

RESULTS

The study sample consists of 31 participants diagnosed with OCD and undergoing treatment, as well as 35 healthy controls. Among the participants, 39 are female and 27 are male. The average age of the participants was 22.71±2.64 in the OCD group and 21.51±2.63 in the control group. 55% of the participants have completed high school, and 56% are currently continuing their education. 44% of the participants are actively engaged in the workforce. The groups showed no significant differences in gender, age, educational level, or professional and academic status. Participants in the control group have never been diagnosed with any psychiatric disorder and have not sought psychiatric assistance during their lifetime. In contrast, all participants in the OCD group are currently receiving psychiatric treatment. Specifically, 19 individuals are undergoing medication therapy, 3 individuals are receiving psychotherapy, and 9 individuals are receiving combined treatment. Table 1 presents the sociodemographic characteristics of the participants.

Differences between the OCD and control groups were assessed using the Mann-Whitney U Test. The

Table 2. Group Comparisons: Mann-Whitney U Test Analysis Results

	Group	n	Median	Mean Rank	U	r_{rb}	p
BPSS_Severity	OCD	31	26	44.44	203.50	0.63	< .001
	Control	35	12	23.81			
BPSS_Frequency	OCD	31	28	42.89	251.50	0.54	< .001
	Control	35	11	25.19			
HDRS	OCD	31	8	43.60	229.50	0.58	< .001
	Control	35	4	24.56			
YMRS	OCD	31	2	39.48	357	0.34	.014
	Control	35	1	28.20			
Y-BOCS	OCD	31	16	51	.000		< .001
	Control	35	0	18		1.00	

BPSS: Bipolar Prodrome Symptom Scale; HDRS: Hamilton Depression Rating Scale; YMRS: Young Mania Rating Scale; Y-BOCS: Yale-Brown Obsessive-Compulsive Scale
n: Number of participants in each group

results revealed statistically significant differences between the groups (Table 2). In the analysis of bipolar prodrome symptoms, for the severity subscale, the OCD group (M=26) exhibited significantly higher severity of prodrome symptoms compared to the control group (M=12) (U=203.50, $p < 0.001$, rrb=0.63). Similarly, in the comparison of the frequency of bipolar prodrome symptoms, the OCD group (M=23) showed significantly higher frequency of prodrome symptoms than the control group (M=11) (U=251.50, $p<0.001$, rrb=0.54). Regarding depression scores, the OCD group (M=8) demonstrated significantly higher depression scores compared to the control group (M=4) (U=229.50, $p<0.001$, rrb=0.58). In terms of bipolar scores, the OCD group (M=2) scored significantly higher than the control group (M= 1) (U= 357, p=0.014, rrb=0.34). Finally, a significant difference was also observed in the OCD symptom scores, with the OCD group (M=16) reporting higher OCD scores compared to the control group (M= 0) (U = 0, $p < 0.001$, rrb = 1.00).

The Spearman Correlation Test was employed to investigate whether a significant relationship exists between bipolar prodrome symptoms and OCD scores. First, the relationship between OCD scores and bipolar prodrome symptom scores was analyzed for all participants, followed by an evaluation of data from only the OCD patients. The analysis conducted to determine the relationship between bipolar prodrome symptom scores and OCD symptom scores for the entire sample revealed a statistically significant correlation between the two variables (Table 3). First, a strong positive correlation was observed between the bipolar prodrome symptom severity subscale and the frequency subscale (r_s (64) = .89, $p < .001$). A moderate positive correlation was found between the severity subscale and OCD symptom scores (r_s (64) = .58, $p < .001$). Also, a moderate positive correlation was identified between the frequency subscale and OCD symptom scores (r_s (64) = .53, $p < .001$).

When analyzing the OCD group's scale scores, a statistically significant correlation was found between the severity and frequency subscales, while no significant correlation was observed for the OCD symptom scores (Table 4). A strong positive correlation was identified between the severity and frequency subscales (r_s (29) = .85, $p < .001$). However, no statistically significant correlations were found between OCD symptom scores and the severity subscale (r_s (29) = .34, p = .063), or between OCD symptom scores and the frequency subscale (r_s (29) = .30, p = .104).

After applying the EM correction, a significant positive correlation was observed between OCD symptom scores and both the severity and frequency subscales (Table 5). Consistent with the results obtained from the general sample, a moderate to

Table 3. Spearman correlation test analysis results between OCD symptoms and bipolar prodrome symptoms

		BPSS_Severity	BPSS_Frequency	Y-BOCS
BPSS_Severity	r_s	1		
	p	.		
	N	66		
BPSS_Frequency	r_s	.894	1	
	p	< .001	.	
	N	66	66	
Y-BOCS	r_s	.578	.533	1
	p	< .001	< .001	.
	N	66	66	66

BPSS: Bipolar Prodrome Symptom Scale; Y-BOCS: Yale-Brown Obsessive-Compulsive Scale N: Total number of participants

Table 4. Spearman correlation test analysis results between OCD symptoms and bipolar prodrome symptoms for the OCD group

		BPSS_Severity	BPSS_Frequency	Y-BOCS
BPSS_Severity	r_s	1		
	p	.		
	n	31		
BPSS_Frequency	r_s	.852	1	
	p	< .001	.	
	n	31	31	
Y-BOCS	r_s	.338	.298	1
	p	.063	.104	.
	n	31	31	31

BPSS: Bipolar Prodrome Symptom Scale; Y-BOCS: Yale-Brown Obsessive-Compulsive Scale n: Number of participants in the OCD group

strong positive correlation was found between OCD symptom scores and the severity subscale (rEM = .52). A similar moderately strong positive correlation was found between the frequency subscale and OCD symptom scores (rEM = .53).

DISCUSSION

Based on the findings of this study, firstly, individuals diagnosed with OCD exhibit significantly higher levels of bipolar prodrome symptoms, both in terms of severity and frequency, compared to control group. These findings support the hypothesis that individuals with OCD demonstrate significantly higher bipolar prodrome symptoms than healthy controls. This finding aligns with previous studies in the literature exploring the connection between OCD and BD prodrome symptoms (15, 28). A prior study found that individuals diagnosed with OCD are at an increased risk of developing BD later on, a risk that remains even after controlling for the use of SSRIs (1). The results of the present study support this finding. This suggests that bipolar prodrome symptoms may be one of the primary risk factors associated with an OCD diagnosis. Despite the literature search, no studies were found that compare bipolar prodrome symptoms between psychiatrically healthy individuals and those diagnosed with OCD.

Secondly, the findings support the hypothesis of a significant positive correlation between OCD scores and bipolar prodrome symptom scores. As OCD symptoms increase, bipolar prodrome symptoms also tend to increase. This suggests that as the prognosis of an individual with OCD worsens the risk of developing BD may also increase. This finding is consistent with the results of Du and colleagues (15). In their study, they identified an atypical BD group, including individuals with anxiety disorder symptoms, such as OCD, who were treated with mood stabilizers. These individuals exhibited more severe OCD symptoms compared to those in the anxiety group (15). However, it should be noted that, in the total sample, a significant positive correlation was observed between OCD symptom severity and both the severity and frequency subscales of the BPSS. However, when analyzing the OCD group separately, these correlations did not reach statistical significance. This discrepancy may indicate that the associations found in the total sample may be primarily driven by between-group differences, rather than reflecting true within-group variability. To further explore this issue, EM algorithm was applied to estimate missing data in the control group's BPSS scores. After this correction, moderate-to-strong correlations between OCD symptoms and BPSS subscales were again observed, consistent with the original total-sample findings. However, it is important to note that the EM method may not resolve the core interpretive issue raised by the lack of significant correlations in the OCD-only group. Rather, it

Table 5. Corrected correlation results between OCD symptoms and bipolar prodromal symptoms for the OCD group

		BPSS_Severity	BPSS_Frequency	Y-BOCS
BPSS_Severity	r_{EM}	1		
	p	.		
	n	31		
BPSS_Frequency	r_{EM}	.852	1	
	p	< .001	.	
	n	31	31	
Y-BOCS	r_{EM}	.338	.298	1
	p	.063	.104	.
	n	31	31	31

BPSS: Bipolar Prodrome Symptom Scale; Y-BOCS: Yale-Brown Obsessive-Compulsive Scale n: Number of participants in the OCD group

serves to illustrate the overall pattern when missing data are statistically accounted for. Thus, the current findings should be interpreted with caution.

The relationship between OCD symptoms and bipolar prodrome symptoms identified in the present study supports the hypothesis proposed by Amerio et al. (4), suggesting that OCD may serve as an underlying factor for bipolar disorder. The significant findings of this study, which investigates the relationship between OCD and bipolar disorder, suggest a potential clinical overlap between the two conditions, thereby challenging the conceptualization of OCD and BD as entirely distinct and diagnostically independent entities. This result highlights the necessity for additional research in this area.

To our knowledge, this is one of the first studies to examine OCD and bipolar prodrome symptoms within a specific age group. The selection of the 18-25 age range is critical, as this age group represents the period when both bipolar prodrome symptoms are commonly observed and the bipolar disorder diagnosis is frequently made (17, 29, 30). Thus, one of the key contributions of this study is evaluating the risk of developing bipolar disorder before diagnosis in individuals with OCD within this age group. An additional important reason for evaluating the potential risk of bipolar disorder during this period is that previous studies have shown that bipolar disorder emerging before adulthood tends to follow a more severe course (31).

Based on the literature review conducted in the present study, no studies investigating the relationship between BD and OCD have included a control group. The inclusion of a healthy control group in this study constitutes one of its strengths. Furthermore, no studies directly investigating bipolar prodrome symptoms in individuals with OCD have been identified in the literature. Previous research has suggested that OCD may predispose individuals to BD, and that OCD symptoms could represent a risk factor for the development of BD (7, 14). However, there is limited literature available regarding the findings of the present study. Thus, it is anticipated that the results of this study will offer significant contributions to the current body of knowledge. Additionally, as there is limited research on individuals with a primary diagnosis of OCD (9), this study serves to address the knowledge gap in this area.

The prevention, early diagnosis, and appropriate treatment of BD are among the primary clinical objectives. The studies reviewed above, as well as the present research, suggest that OCD may serve as a significant risk factor for BD, with the possibility of similar or distinct prodrome symptoms emerging in BD. A key implication of these findings is that early detection of potential BD patients may be feasible with targeted clinical attention. Therefore, it would be beneficial for clinicians to monitor bipolar prodrome symptoms in individuals with OCD aged 18-25. Based on the fact that the diagnosis cannot be made according to the scale assessment, it is important for the clinician to make a BPSS scale assessment in late adult patients diagnosed with OCD and to consider making a diagnostic evaluation of BPD in patients with high BPSS scores.

However, it is important to acknowledge that the findings should be interpreted in light of certain limitations. First, the study has a limited sample size. The study was conducted within a limited timeframe at a single center as part of a master's thesis. Given the inclusion criteria, which involved a specific age range and the requirement of having a diagnosis of OCD, the number of participants was limited. Moreover, no new individuals who met the study conditions applied to the center during this period. Also, the recruitment of participants from a single private clinical setting may have introduced selection bias. It is likely that the participants included in this study differ from the broader clinical population in terms of treatment adherence and help-seeking behaviors, possibly reflecting higher levels of treatment engagement or distinct socioeconomic characteristics. Furthermore, as the data were collected exclusively from a private psychiatric clinic, the study represents a single-center, non-random sample, which further limits the generalizability of the findings. Patient populations in private clinical settings may systematically differ from those in public healthcare services with regard to socioeconomic status, insurance coverage, and the severity or comorbidity of psychiatric condi-

tions. Therefore, caution is warranted when attempting to generalize these results to more diverse or representative clinical populationsSecond, previous studies have shown that alcohol and substance use (32), and certain medications used in the treatment of OCD (33) may increase the risk of BD. However, this information was not collected from participants and was not included in the analysis. The direct effects of these medications on symptom presentation, as well as their potential impact on participants' responses, were not fully controlled. Although attempts were made to adjust for some confounding variables in the analyses, the complexity and heterogeneity of medication use pose challenges to achieving complete control in this regard. Although medication use is present in the patient group, it should be considered that, during the evaluation, both clinical examination and psychometric assessments indicate that there are no additional psychiatric comorbidities beyond OCD.

Third, this study only included treated OCD patients. Prodrome BD symptoms in untreated OCD patients remain unknown. Also, a key limitation of this study is the lack of systematic assessment regarding the clinical state (active vs. remission) of OCD participants. Given the symptom overlap between OCD symptoms and bipolar prodrome features (e.g., irritability, mood lability), this restricts the interpretability of the elevated BPSS scores in the OCD group. Additionally, the absence of psychiatric disorders in the control group was determined through self-report and confirmed by low scores on both clinician-administered and self-report measures used in the study (e.g., HDRS, YMRS, BPSS). However, no structured diagnostic interview (e.g., SCID) was conducted. This reliance on subjective reporting and scale thresholds may limit the diagnostic precision and raises the possibility that subclinical or undetected psychopathology could have been present in the control sample. prodromeAnother limitation of the study is that although elevated BPSS scores in the OCD group may suggest the presence of prodrome features associated with BD, it is important to acknowledge that several BPSS items (e.g., mood lability, irritability) overlap with anxiety-related and OCD symptomatology. Moreover, as BPSS is a self-report measure, the findings may be influenced by response bias, which limits the interpretability and reliability of the results. Lastly, due to the study's methodology and its cross-sectional design, causal relationships cannot be established. Consequently, the directionality or temporal progression of the association between OCD symptoms and bipolar prodrome symptoms remains unclear. Therefore, it is uncertain whether OCD patients exhibiting higher bipolar prodrome symptoms will eventually develop a diagnosis of bipolar disorder. prodromeReplicating a similar study across multiple centers with a larger sample size would be beneficial for enhancing the reliability and validity of the findings. Moreover, supporting the study's results with a follow-up investigation would strengthen its conclusions. In order to elucidate the nature of the relationship between OCD and BD, particularly with regard to potential overlapping prodrome symptoms, future research should prioritize longitudinal studies, investigate shared biological mechanisms, incorporate family-based research designs, and assess treatment outcomes across these conditions. Longitudinal studies are therefore necessary to better understand the dynamics and potential causal pathways underlying these associations. Moreover, future studies should incorporate standardized assessments of clinical status (e.g., remission vs. active phase) in patients with OCD at the time of evaluation. Employing validated clinician-rated tools or structured interviews to determine symptom severity would allow for more accurate interpretation of overlapping features between OCD and bipolar prodrome symptoms. Also, stratifying the sample based on clinical status could help clarify whether elevated BPSS scores are more closely linked to active OCD symptomatology or represent distinct risk indicators for bipolar disorder.prodrome Furthermore, individuals with early-onset OCD may have an increased risk of developing BD, which could require additional attention. In addition, especially in clinical practice, it is recommended that individuals diagnosed with OCD in this age group should be questioned comprehensively about their family history, appropriate scales should be used, and they should be examined for bipolar disorder both during the current and follow-up examination.

This study is one of the first studies to investigate prodrome symptoms of BD in patients with OCD

in the literature. Findings from this study point to the fact that individuals with OCD in the 18-25 age group show higher bipolar prodrome symptoms compared to psychiatrically healthy individuals in the same age group, and that as OCD symptoms increase, bipolar prodrome symptoms also increase. In conclusion, the above discussion points to a potential relationship between OCD and bipolar disorder. Clinicians should assess individuals diagnosed with OCD in this age group for the risk of BD.

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