




Five-Factor Personality Profile in Bipolar Mood Disorder and Borderline Personality Disorder

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Received 2017 November 11; Revised 2019 May 10; Accepted 2019 September 01.

Abstract

Background: Bipolar disorder and borderline personality disorder have some similar symptoms that might confuse the diagnosis. Many experts defend the borderline pathology within the spectrum of bipolar illness.

Objectives: This study aimed to compare patients with borderline personality disorder and bipolar disorder from a novel perspective, i.e., personality traits defined by the five-factor model of personality.

Methods: This descriptive-analytical study was conducted in Psychiatry Clinics of Tabriz University of Medical Sciences. Consecutive patients diagnosed with borderline personality disorder and bipolar I disorder by a semi-structured clinical interview were enrolled excluding those with comorbidity. The NEO inventory was used to score on five major domains of personality.

Results: A total of 60 patients (40 males) completed the study with a mean age of 28.3 ± 8.1 years (range: 19 - 59). Regardless of the diagnosis, patients scored the highest on openness to experience and the least on conscientiousness. There was no significant difference between patients with bipolar mood disorder and patients with borderline personality disorder in terms of five personality dimensions. Males, in general, scored higher than females on conscientious, but male patients with bipolar disorder scored higher on agreeableness and extroversion.

Conclusions: This study showed a comparable personality profile between patients with bipolar disorder and borderline personality disorder.

Keywords: Borderline Personality Disorder, Bipolar Mood Disorder, Personality, Bipolar Mood Disorder; Personality; Big Five

1. Background

The borderline personality disorder is a common disorder with a prevalence of 1.6% - 5.9% in the general population (1, 2). Almost 10% of outpatients and 20% of inpatients at psychiatric centers fulfill the criteria of borderline personality disorder (3) and it accounts for 30% - 60% of the total personality disorders (4). Borderline personality disorder has a high burden because of a wide range of symptoms (5, 6). Another serious mental condition is bipolar I disorder with a 12-month prevalence rate of 0.6%. Bipolar I disorder has a mean age at diagnosis of around 18.1 years, which is comparable to that of borderline personality disorder (3, 6).

Bipolar disorder and borderline personality disorder have some similar symptoms that might confuse the diagnosis (7). Studies revealed that almost 40% of patients with borderline personality disorder had been primarily diagnosed with bipolar disorder because of similar diagnostic

criteria (8, 9) and complicated differentiation of the disorders (10, 11).

Many experts defend the borderline pathology within the spectrum of bipolar illness (12). Similarities have been discovered in different aspects. Certain personality traits as measured by the Neuroticism-Extraversion-Openness Inventory (NEO-I) inventory show to be predominant in patients with bipolar disorder, and the predominance is more obvious when there is comorbid borderline personality disorder (8).

Some authors challenge the classification system for the diagnosis of these disorders concerning comprehensiveness and specificity (13). However, there is evidence showing that patients with bipolar disorder at a young age are more predisposed to borderline personality disorder (14). The opposite approach believes that borderline personality is a risk factor for bipolar disorder. These might indicate a shared origin of disorders such as underlying genetic factors (15).

2. Objectives

Therefore, studies keep looking for candidate variables to differentiate these two disorders or find their similarities. The current study aimed to compare patients with borderline personality disorder and bipolar disorder from a novel perspective, i.e., personality traits defined by the five-factor model of personality. The results might assist in the design of studies and also have clinical implications.

3. Materials and Methods

This descriptive-analytical study was conducted in the Psychiatry Clinics of Tabriz University of Medical Sciences, North West of Iran, in 2015. A written informed consent was obtained from all participants.

3.1. Procedure

We enrolled consecutive patients diagnosed with borderline personality disorder and bipolar I disorder through semi-structured clinical interviews. Physical examination and laboratory investigations were also made as appropriate to rule out general medical conditions mimicking psychiatric signs and symptoms. After recording the demographics, all patients were evaluated for their big-five personality profiles. Evaluations were performed after full remission of any affective symptoms. Patients with non-affective psychotic disorders, personality disorders other than borderline personality disorder, intellectual disability or comorbid substance use disorder and those who were illiterate were excluded. Individuals with bipolar disorder who were diagnosed to have premorbid borderline personality disorder were also withdrawn. According to similar studies (16), the sample size in each group was estimated at 30 patients.

3.2. Measures

3.2.1. Structured Clinical Interview for DSM-IV, Axis I, and Axis II

The Persian versions of SCID I and II (17) were used to make the diagnosis in this study by a trained psychiatrist. In the case of fulfillment of bipolar disorder criteria by SCID I, the patients were referred for personality evaluation by SCID II after symptom remission.

3.2.2. NEO Five-Factor Inventory

NEO-FFI is a 60-item questionnaire rated on a five-point scale to yield scores on five major domains of personality, including openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. This self-report scale usually takes 10 to 15 min to complete. The Persian version of NEO (18) has been successfully used by other studies in Iranian population (19, 20) and it was used for the evaluation of described personality domains in this study.

3.3. Statistical Analysis

Data were analyzed by SPSS version 25. The data were described as mean (standard deviation) or number (percentage), as appropriate. The mean scores were compared using the students' *t* test. *P* values of < 0.05 were considered significant.

4. Results

In total, 60 patients completed the study with a mean age of 28.3 ± 8.1 years (range: 19 - 59); 40 of them were male and 20 were female. The mean age was 29.87 years for patients with borderline personality disorder and 31.17 years for patients with bipolar disorder, which showed no significant difference (*P* value = 0.60).

Most of the patients with borderline personality disorder were single (70%) while the majority of the patients with bipolar disorder were married (63.3%, *P* = 0.045). There was no significant difference between the two groups in the time of their first contact with the mental healthcare system (*F* = 0.58, *T* = 0.85, *df* = 57.65, *P* = 0.40).

Regardless of the diagnosis, patients scored the highest on openness to experience and the least on conscientiousness. Table 1 shows a comparison between the scores of the two groups. The results of independent *t*-test showed no significant difference between the scores of the two groups.

We also compared the mean scores of NEO between males and females within each group regardless of psychiatric diagnosis. Males, in general, scored higher than females on conscientious (*P* value = 0.004) (Table 2). In the bipolar disorder group, there was the same result for conscientious, but male patients with bipolar disorder scored higher on agreeableness and extroversion (*P* value < 0.05) (Table 2). In contrast, males and females with borderline personality disorder were comparable in terms of personality scores.

5. Discussion

This study evaluated patients with borderline personality disorder and patients with bipolar I disorder concerning their personality profile based on NEO Big Five to find similarities and differences between these two distinct disorders. Regardless of the diagnosis, the higher scores went to openness to experience, reflecting a preference for novelty and variety. They reported the least score on conscientiousness, resulting in spontaneous behavior and low reliability. Both of them are compatible with the definition for the whole spectrum that is recognized with impulsivity and instability as core symptoms.

Table 1. Scores of Personality in Patients with Bipolar I Disorder and Borderline Personality Disorder

	Bipolar Disorder	Borderline Personality Disorder	Total	T	P Value
Neuroticism	22.87 (7.86)	23.17 (9.67)	23.02 (8.77)	0.13	0.89
Extroversion	19.47 (8.18)	17.73 (5.25)	18.60 (6.72)	-0.98	0.33
Openness	24.70 (3.54)	24.50 (3.48)	24.60 (3.51)	-0.22	0.83
Agreeableness	22.37 (6.44)	20.70 (6.51)	21.54 (6.48)	-0.98	0.32
Conscientious	16.50 (7.60)	15.30 (8.06)	15.90 (7.83)	-0.59	0.56

Table 2. Mean Scores of Personality in Male and Female Patients with Bipolar I Disorder and Borderline Personality Disorder

	Borderline Group			Bipolar Group			All		
	Male	Female	P Value	Male	Female	P Value	Male	Female	P Value
Neuroticism	23.64	20.80	0.70	20.60	25.13	0.12	22.50	24.05	0.56
Extroversion	17.64	18.20	0.87	23.33	15.60	0.01	19.78	16.25	0.07
Openness	24.48	24.60	0.94	25.67	23.73	0.14	24.93	23.95	0.31
Agreeableness	21.32	17.60	0.37	24.80	19.93	0.04	22.63	19.35	0.09
Conscientious	15.96	12	0.23	20.53	12.47	0.002	17.68	12.35	0.004

There are few studies comparing clinical samples of affective disorders and the general population regarding Big Five. One study found that patients with borderline personality disorder scored higher than the general population on neuroticism and lower than the general population on agreeableness (16). We did not aim to have a control group of the general population in this study but the results of studies in the Iranian general population (5) are compatible with this report. The same comparison can be made for the personality profile of patients with bipolar mood disorder. Studies revealed that these patients scored higher than controls on neuroticism and extraversion (21).

There is a growing body of evidence supporting that bipolar disorder and borderline personality disorder are on the same spectrum, with unstable emotions being the core psychopathology leading to neuroticism (12, 22). Our results are in line with this concept and show that patients with these two different diagnoses have a comparable personality profile. Our results are in contrast to studies supporting a factual difference between bipolar disorder and borderline personality disorder; however, some suggest a subgroup of bipolar disorder (with symptoms between episodes) to be more similar to borderline personality disorder (23). Another study compared the personality traits between patients with bipolar disorder (with no personality disorder) and patients with comorbid personality and bipolar disorder and showed higher neuroticism and lower agreeableness only in those with comorbid cluster B personality (24). These findings, in general, support the idea of borderline and bipolar disorders being on the same spectrum, but also suggest that there might be subgroups

(in terms of inter-episode symptoms or gender) that can distinguish the differences.

Another finding of this study was that males and females with borderline personality were comparable in the NEO's score. This contradicts several reports that women in the general population gain higher scores on extraversion, agreeableness, and neuroticism than men (25). This might imply that the personality profile pattern of males and females with borderline personality disorder are similar, e.g., in easily experiencing unpleasant emotions.

Interestingly, males with bipolar disorder reported higher extroversion, agreeableness, and conscientiousness than females, which is different from the pattern in the general population. The higher level of extroversion and agreeableness in males (i.e. higher tendency to seek stimulation together with a good temper) might explain the higher rates of substance use disorder in males (26).

The main limitations of our study were the absence of a healthy control group and limiting bipolar disorder to type one. Further studies should include patients with bipolar II disorder to have a comprehensive evaluation. Moreover, we did not consider symptom severity and course of the disorders. We believe it would not affect the personality traits of patients; however, this can be evaluated in further studies to give more precise results, which might give cues to find traits influencing the clinical outcome of pathologies (21).

In conclusion, this study showed comparable personality profiles between patients with bipolar and borderline personality disorders that might be due to the same mechanisms or genetic etiology (27). There were gender differ-

ences within the groups that might help have a better understanding of psychopathology.

Footnotes

Authors' Contribution: Asghar Arfaie and Ali Reza Shafiee-Kandjani involved in the conception and design of the study. Salman SafiKhanlou, Aydin Arfaie, and Nazanin Jalali-Motlagh performed the data analysis and interpretation. Kowsar Tarvirizade drafted the manuscript. Ali Reza Shafiee-Kandjani, Asghar Arfaie, and Kowsar Tarvirizade supervised the development of work, helped in data interpretation, and manuscript evaluation. All the authors contributed to the acquisition of data and approved the final version of the manuscript.

Declaration of Interest: The authors declare that they have no conflicts of interest.

Funding/Support: Authors has received no financial support. The study was performed as an MD thesis under number 1393/9319 medical faculty, Azad University, Tabriz Branch.

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