

LETTERS TO THE EDITORS

Predominant polarity and associated post-traumatic stress disorder in patients with comorbid bipolar disorder and borderline personality disorder: a cross-sectional study

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Dual diagnosis of bipolar disorder (BD) and borderline personality disorder (BPD) has been extensively explored in literature, with meta-analyses finding that more than 20% of patients with BD also have borderline personality disorder.¹ Much has been published on the link between BD and BPD, since the two disorders involve considerable overlap despite being nosologically distinct.² However, the association between comorbid BD and BPD and predominant polarity (PP) patterns has not been fully investigated. In addition, other potential clinical, psychopathological, and functional implications associated with the comorbid BD and BPD have not yet been thoroughly characterized.

It has been shown that comorbid BD and BPD drastically impact quality of life. Previous studies have found a higher number of depressive episodes, an earlier age of onset, and a higher frequency of childhood traumatic experiences in patients with the comorbidity than in those with BD alone.³ One important aspect of BD is PP, or the polarity at which patients present more symptoms over at least two-thirds of their lifetime.⁴ Patients with predominantly depressive BD experience distinctive symptoms and receive different treatment than those with predominantly manic BD.⁵ More specifically, depressive PP has been associated with depressive onset, delayed diagnosis of BD, and higher rates of suicidal acts, while manic PP has been associated with manic onset, earlier age of onset, and higher rates of alcohol and drug abuse.⁶ Based on the particular challenges that these distinct PPs tend to present for patients, data regarding the extent to which comorbid BD and BPD impacts PP may facilitate early identification and treatment, which is crucial for minimizing detriment to quality of life.

This study consisted of a cross-sectional analysis of data previously collected by the UT Center of Excellence on Mood Disorders. Since 2009, through different protocols, the Center has consistently collected clinical and

psychopathological information on individuals with BD. The study was approved by the respective Institutional Review Board, and all participants provided informed consent prior to inclusion. Diagnosis of BD was confirmed through the Structural Clinical Interview for DSM-IV (SCID-IV), and the presence or absence of BPD was determined with the SCID-II. For the purposes of this analysis, a sample of 38 patients with BD and comorbid BPD was compared with 35 patients with BD alone. Both groups were matched according to age, sex, and BD subtype. PP was determined according to SCID responses and was defined as a $\geq 2:1$ lifetime proportion of depressive vs. manic/hypomanic episodes or vice-versa. If the ratio fell between 0.5 and 2.0, no polarity was assumed. Using non-parametric tests, the PP patterns (manic vs. depressive vs. no polarity) were compared between the two groups; several other measurements were also performed.

No significant difference in PP was found between BD groups with and without comorbid BPD ($p = 0.75$). However, the groups differed significantly in frequency of post-traumatic stress disorder (PTSD) ($p = 0.04$), with 39.5% of patients with the comorbidity and 17.1% of patients without the comorbidity meeting PTSD diagnosis criteria. Additionally, there was a trend among several anxiety disorders, specifically generalized anxiety disorder ($p = 0.08$) and social phobia ($p = 0.09$), which were more frequent in the comorbidity group. Mean Functional Assessment Short Test scores were also higher in the comorbidity group (38.0 vs 30.1; $p = 0.07$).

PP did not significantly differ between individuals with BD and comorbid BPD and those with BD alone. However, preliminary data suggests further impairment among patients in the comorbidity group. This is demonstrated by an increase in the frequency of anxiety disorders, PTSD, and lower levels of functioning. A lower level of functioning is indicated by the trend towards higher Functional Assessment Short Test scores in the group with comorbid BPD.⁷ Additionally, the higher prevalence of PTSD in the comorbid group is consistent with previous studies, whose estimated rates are similar to those found in this study. While the estimated rate of PTSD among patients with BPD is approximately 30.2%, the estimated prevalence of PTSD in patients with BD is around 16%.^{8,9} It may be useful to examine these particular factors more closely when formulating a clinical diagnosis for patients in whom BD-BPD comorbidity is suspected. It should be pointed out that this study is limited by its small sample size, which renders it underpowered. Further studies in larger clinical samples are warranted to fully evaluate the degree to which comorbid BPD impacts patients with BD.

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Disclosure

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Negative dimension stability across clinical stages and sociodemographic characteristics in schizophrenia

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Negative symptoms are a challenge to schizophrenia treatment and an obstacle to functional recovery. Although a deeper knowledge of the disorder's

neurobiology is needed to change this, reliable assessment of these symptoms remains a shortcoming in the field.¹ The most accepted structures of the negative symptoms include two to five dimensions.² However, there is limited data on whether such structures are stable in different groups of patients with schizophrenia. Therefore, we aimed to verify the relationship between clinical variables and the fit of a two-factor model of the Positive and Negative Syndrome Scale's (PANSS) negative dimension, considering different clinical stages, sex, age, and current antipsychotic use. As secondary objectives, we analyzed the effect of a multilevel structure on the psychometric quality of the two-factor dimensional structure in a Brazilian sample.

We recruited 692 individuals from four different Brazilian centers diagnosed with schizophrenia according to DSM-IV,³ of either sex, aged between 15 and 65 years, and without severe intellectual disability. The Universidade Federal de São Paulo ethics committee approved the study protocol (project 1.052.059).

We performed confirmatory factor analysis to test a correlated two-factor model in which items N1, N3, N6 and G7 expressed the “expressive deficits” factor and N2, N4 and G16 expressed the “social amotivation” factor. The items used to express the negative dimension were based on Higuchi et al.,⁴ while the model was based on Fervaha et al.,⁵ Khan et al.,⁶ and Kagan et al.⁷ We used multilevel modeling to determine the impact of pooled data in psychometric analyses. Finally, we tested the model's invariance using the multiple causes and multiple indicators model⁸ according to sex, age, current antipsychotic type (first- vs. second-generation), and clinical stage (treatment-resistant vs. non-resistant).

The majority of the sample was men (64.3%), and the mean age was 34.9 years (SD, 10.31). Other demographic and clinical characteristics of the sample are provided in Table S1, available as online-only supplementary material. In traditional confirmatory factor analysis, the two-factor model of the negative dimension showed a poor fit (Table S2). However, it achieved good fit when a multilevel structure was included. Likewise, subsequent analysis with the multiple causes and multiple indicators method adjusted by multilevel structure revealed a good fit (Figure 1). No covariates directly affected item responses, and all showed model invariance: clinical staging, age, sex, and current antipsychotic type (first- vs. second-generation). Sex and age significantly influenced the means of both factors – male sex and younger age showed the highest means among the factors. Treatment-resistant patients had higher means only in the “expressive deficits” factor.

The results did not support a distinct underlying structure for negative symptoms in patients with treatment-resistant schizophrenia. The exclusivity of positive symptoms in treatment-resistant criteria may also explain the invariance of negative symptoms among treatment-resistant and non-resistant patients.

Our results suggest that a negative two-factor dimension of the Positive and Negative Syndrome Scale is stable across different groups of patients regardless of sex, age, or current antipsychotic type. The results also