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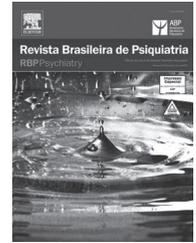
BRIEF COMMUNICATION

Prevalence and clinical impact of eating disorders in bipolar patients

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DESCRIPTORS
Bipolar Disorder;
Eating Disorders;
Anorexia Nervosa;
Bulimia Nervosa;
Quality of Life.

Abstract

Objectives: To study the impact of eating disorders (EDs) on the severity of bipolar disorder (BD). *Methods*: The Structured Clinical Interview for DSM-IV Axis I (SCID-I), Young Mania Rating Scale (YMRS), Hamilton Depression Rating Scale (HAM-D-17), Hamilton Anxiety Rating Scale (HAM-A), Global Assessment of Functioning (GAF), Clinical Global Impression (CGI), and the World Health Organization Quality of Life Assessment (WHOQOL-BREF) were used. Clinical and sociodemographic data were also collected. *Results*: Among the 356 bipolar patients included in this study, 19 (5.3%) were also diagnosed with ED. Of these, 57.9% had bulimia nervosa (BN) and 42.1% had anorexia nervosa (AN). Among ED patients, 94.7% were female. Bipolar patients with EDs presented with lower scores in the mental health domain of the WHOQOL-BREF, higher scores of depressive symptoms, and more psychiatric comorbidities. *Conclusions*: ED comorbidities imposed important negative outcomes in bipolar patients. This finding suggests that attention should be given to the presence of EDs in BD patients and that better treatments focused on this population should be developed.
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DESCRITORES:
Transtorno bipolar;
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Qualidade de vida.

Prevalência e impacto clínico dos transtornos alimentares sobre os pacientes bipolares

Resumo

Objetivo: Estudar a influência dos transtornos alimentares (TA) na gravidade do transtorno bipolar (TB). *Métodos*: Foram utilizadas a Entrevista Clínica Estruturada para o Eixo I do DSM-IV (SCID-I), a Escala de Young para Avaliação da Mania (YMRS), a Escala de Hamilton para Avaliação da Depressão (HAM-D-17), a Escala de Hamilton para Avaliação da Ansiedade (HAM-A), a Avaliação do Funcionamento Global (GAF) e a Escala Breve de Avaliação da Qualidade de Vida da Organização Mundial da Saúde (WHOQOL-BREF). Os dados clínicos e sociodemográficos também foram coletados. *Resultados*: Entre os 355 pacientes com TB incluídos neste estudo, 19 (5,3%) também foram diagnosticados como portadores de TA. Destes, 57,9% tinham bulimia nervosa (BN) e 42,1% anorexia nervosa (AN). Dentre os pacientes com TA, 94,7% eram do gênero feminino. Os pacientes portadores de TB e TA apresentaram escores mais baixos do domínio saúde mental da WHOQOL-BREF, escores mais elevados de sintomas depressivos e mais comorbidades psiquiátricas. *Conclusões*: A presença de comorbidades com TA acarreta importantes desfechos negativos em pacientes bipolares. Este achado sugere que atenção deva ser dada à presença de TA em pacientes com TB e que melhores tratamentos focados nessa população sejam desenvolvidos.

Introduction

Bipolar disorder (BD) is a serious illness[1] in which patients alternate between periods of depression and mania. This disorder has a worldwide prevalence ranging from 0.6% to 1.6% in the general population,[2] and it significantly compromises the social and work lives of affected subjects.[3] BD is frequently associated with comorbidities, which are primarily anxiety disorders, alcohol and drug abuse, and dependency, as well as eating disorders (EDs).[4] In a review of studies conducted between 1982 and 2003,[5] the prevalence of EDs in BD patients (2.3% to 15%) was higher than that in the general population (0.7% to 1.8%).

Brietzke et al.[6] studied 137 women with type I BD using the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, Axis I Disorders (SCID-I), and a sociodemographic questionnaire, and found a 14.6% prevalence of EDs. In this study, patients with EDs had an earlier onset of BD; more depressive episodes; more comorbidities, especially with substance use and anxiety disorders; and a higher number of suicide attempts.

Also, recently, McElroy et al.[7] investigated the prevalence and clinical characteristics of 875 type I and II bipolar patients with EDs, and showed a prevalence of 14.3%. In this study, the presence of EDs in patients with BD was associated with earlier onset of mood disorder; presence of mixed episodes and rapid cycling; presence of severe mood episodes; and history of suicide attempts, obesity, and comorbidity with alcoholism and drug abuse.

Thus, to the best of our knowledge, only few studies have explored the prevalence of EDs in BD patients, investigated the consequences of this comorbidity on quality of life, and described the characteristics of BD patients with and without EDs. Therefore, the present study aimed to assess whether several demographic and clinical variables were associated with the presence of EDs in BD patients, and to study the impact of EDs on the severity of bipolar disorder patients in a selected Brazilian sample.

Methods

All patients diagnosed with BD and who had undergone treatment between March 31, 2005, and March 22, 2009, at two university hospitals in Salvador and Porto Alegre, Brazil, were included

All patients were 18 years of age or older and presented with mood symptoms of varying severity (in acute phase or not). Patients with mental disturbances who were unable to understand the study and those who refused to sign the informed consent form were excluded.

Subjects were submitted to the following assessments: clinical and sociodemographic questionnaire, Structured Clinical Interview for DSM-IV Axis I (SCID-I), Young Mania Rating Scale (YMRS), Hamilton Depression Rating Scale (HAM-D-17), Hamilton Anxiety Rating Scale (HAM-A), Global Assessment of Functioning (GAF), and Clinical Global Impression Scale (CGI). The World Health Organization Rating Scale for quality of life evaluation (WHOQOL-BREF) was used in a subsample (n = 180) of participants. The interviews were conducted by researchers who had formal training and extensive experience in dealing with all instruments.

The Statistical Package for Social Sciences (SPSS) software, version 13.0, was used for statistical analyses. Mean and standard deviations were estimated for continuous variables. For categorical variables, either Pearson's chi-square test or Fisher's exact test were used, and the Mann-Whitney U test was applied for continuous variables. Binary logistic regression analyses were conducted to assess the contribution of each predictor variable independently, and those with p < 0.10 were included in the equation. A significance level of 0.05 was used for all statistical analyses.

Results

A total of 406 bipolar patients were initially selected. Fifty (12.3%) patients were excluded due to data loss. A total of 356 (87.7%) patients were assessed.

Among the 356 bipolar patients included in this study, 5.3% (n = 19) had an ED diagnosis, current or lifetime. Of these, 57.9% (n = 11) had bulimia nervosa (BN) and 42.1% (n = 8) had anorexia nervosa (AN). The mean age of our sample was 41.4 years. There were significant differences among BD patients with and without EDs, and EDs group had a higher number of females. The only male participant met the diagnostic criteria for BN.

No significant differences were found in the CGI, GAF, HAM-A, and YMRS scores between subjects with and without EDs. There was a trend for patients with EDs to present higher HAM-A scores (p = 0.07), and HAM-D-17 scores were higher in patients with EDs compared to those without EDs (p = 0.01, Table 1).

In the logistic regression conducted to assess if demographic and clinical variables significantly predicted whether participants had or not EDs, 57 of the 406 participants had missing data and were not considered in the analysis. Variables whose significance was p < 0.10 [gender (p = 0.02), ethnicity (p = 0.06), marital status (p = 0.08), HAM-D (0.06), and number of comorbidities (p < 0.001)] were included in the equation. In this analysis, only gender and number of comorbidities were individually significant regarding EDs. Nevertheless, the overall model was significant when all five independent variables were included (x^2 = 38.71, df = 5, n = 349, p < 0.001). Taken together, gender (OR = 0.61, p = 0.02), marital status (OR = 0.50, p = 0.03), and number of comorbidities (OR = 1.68, p < 0.001) were significant predictors, but not ethnicity (OR = 0.33, p = 0.13) and HAM-D (OR = 0.99, p = 0.79). These odds ratios suggest that the odds of having EDs are increasingly greater as the number of comorbidities increases and as the number of male and participants having partners decreases.

A subsample of BD patients in this study provided quality of life information by completing the WHOQOL-BREF (n = 180). Of these, only 14 had EDs. We replicated the same analysis with this smaller sample and included the psychological domain of the WHOQOL-BREF, the only quality of life domain independently significant

Table 1 Demographic and clinical features for 356 bipolar patients with and without lifetime comorbid eating disorders

Variable*	No eating disorder (n = 337)	Eating disorder (n = 19)	p
Gender, No. (%)			
Female	231 (68.8)	18 (94.7)	**0.02**
Age, mean (SD)			
Current	41.6 (12.1)	40.4 (11.1)	0.70
At first episode	26.3 (12.5)	21.7 (10.7)	0.11
At diagnosis	34.5 (12.2)	30.9 (10.9)	0.31
Marital status, No. (%)			
Married/living with partner	120 (36.2)	4 (21.1)	0.21
Single/divorced/widow	212 (63.8)	15 (78.9)	
Occupation, No. (%)			
Employed	82 (24.6)	5 (26.3)	
Student/homemaker/retired/sick-leave)	251 (75.4)	14 (73.7)	0.79
Type of first episode, No. (%)			
Mania/hypomania	124 (55.1)	8 (57.1)	
Depression	72 (32.0)	2 (14.3)	0.16
Mixed	29 (12.9)	4 (28.6)	
Hospitalizations, No. (%)	263 (79.9)	16 (88.9)	0.54
Rapid cycling, No. (%)	63 (19.7)	6 (33.3)	0.22
Suicide attempts, No. (%)	138 (42.5)	11 (61.1)	0.12
Number of comorbidities, mean (SD)	2.4 (2.0)	4.7 (1.9)	**0.0001**
CGI, mean (SD)	3.1 (1.8)	3.6 (1.2)	0.22
HAM-A, mean (SD)	10.5 (8.8)	13.6 (7.6)	0.07
HAM-D, mean (SD)	8.4 (7.7)	11.7 (6.0)	**0.01**
GAF, mean (SD)	59.5 (18.4)	55.8 (12.7)	0.16
WHOQOL-BREF,** mean (SD)			
Physical health	53.1 (19.9)	45.2 (23.5)	0.19
Psychological health	52.9 (20.8)	34.9 (14.7)	**0.001**
Social relations	53.2 (23.2)	46.4 (18.7)	0.21
Environment	55.1 (15.9)	50.0 (11.3)	0.10

SD: standard deviation; CGI: Clinical Global Impression; HAM-A: Hamilton Anxiety Scale; HAM-D: Hamilton Depression Scale; YMRS: Young Mania Rating Scale; GAF: Global Assessment of Functioning; WHOQOL: World Health Organization Quality of Life.
*Not all sample sizes are n = 337 because of missing data; **n = 180.

associated with EDs (p = 0.002). The number of comorbidities was also independently significant regarding EDs (p = 0.01), but not ethnicity (p = 0.80), marital status (p = 0.17), and HAMD (p = 0.72). In this smaller sample, there was a trend for gender to reach significance (p = 0.06). When all six predictors were considered together in the equation, they significantly predicted EDs (x^2 = 24.57, df = 6, n = 180, p < 0.001). Nonetheless, only number of comorbidities (OR = 1.37, p = 0.05), HAM-D (OR = 0.89, p = 0.04) and the psychological domain of WHOQOL-BREF (OR = 0.67, p = 0.004) were significantly associated with EDs. There was a trend for marital status (OR = 0.52, p = 0.07) to reach significance. Here, the odds ratios suggest that the odds of having EDs are increasingly greater as the number of comorbidities increase and HAM-D and quality of life (psychological domain) scores decrease.

Discussion

The present study found a prevalence of EDs in BD patients that is similar to that commonly seen in the literature,[8] which is higher than that found in the general population.[5] Our results also corroborate data in the literature that indicate a higher prevalence of female patients with EDs.[9,10]

Also, these BD patients with comorbid EDs had significantly more negative clinical outcomes, namely higher scores for depressive symptoms as assessed by the HAM-D scale, lower scores of quality of life in the psychological domain of the WHOQOL-BREF, and significantly more psychiatric comorbidities.

EDs have been suggested to occur more frequently in the depressive phase,[11] and this phenomenon was corroborated by our study. This finding may explain, at least partially, why quality of life is impaired in these individuals, as QOL scores are likely to be markedly lower in BD patients during the depressive phase.[12] Both HAM-D and the psychological domain of the WHOQOL-BREF were significant predictors of the ED presence in BD patients when adjusted by the logistical regression model.

It is worth noting that mood stabilizers, which are the first-line treatments of BD patients, lead to weight gain.[11] This effect, by itself, could negatively impact prognosis because it reduces treatment adherence in subjects who already have an ED.[13] These patients, therefore, require individualized treatment administered by a multiprofessional and well-trained staff.[14]

Our findings should be interpreted in light of several limitations. First, the cross-sectional design used herein precluded the opportunity to examine a temporal relationship between BD and ED. Second, this study used a selected sample of patients from specialised services; therefore, the results may not be generalised to other psychiatric settings or to community situations. Third, body mass index (BMI) values, which are important information for the appropriate analysis of patients with EDs, were not measured. Fourth, binge eating disorder, although widely studied, was not included in this study because it was not included as a diagnostic category by the DSM-IV. Finally, this study included only adults and all types of bipolar patients, suggesting that further studies should be conducted so that more information can be gathered to differentiate bipolar children and adolescents with comorbid EDs from the adult population. In addition, future studies should investigate the impact of EDs in different types of BDs, controlling for different variables.

In summary, this study reports the analysis of a sample of BD patients from two Brazilian large cities, confirming previous clinical findings of the comorbid current and lifetime prevalence of EDs in BD subjects seen in literature. In addition, individuals with BD and EDs presented with significantly more severe BD symptoms than those without EDs. These findings suggest the need for differential diagnostic assessments, as well as individualised treatment plans.

Our study encourages further research to elucidate the genetic and neurobiological bases of BD and EDs. Moreover, prospective studies should be encouraged to better clarify the temporal relationship and the prognostic implications of comorbid EDs in BD patients.

Conclusions

Our findings suggest that BD patients with comorbid EDs experience higher illness severity relative to BD patients without EDs. Such findings suggest the need for differentiated diagnoses and treatment plans for these patients. However, further research is needed to confirm these results and ensure that these findings can be generalised for the entire clinical population of patients with BD.

Disclosures

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* Modest
** Significant
*** Significant: Amounts given to the author's institution or to a colleague for research in which the author has participation, not directly to the author.

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