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ORIGINAL PAPER

Correlation Between Insight Level and Suicidal Behavior/Ideation in Bipolar Depression

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Abstract Suicide is a relatively common outcome along the course of bipolar disorder. Studies have shown a positive correlation between ideation or attempts of suicide and higher insight in schizophrenic patients. Nevertheless there are still few studies that evaluate the relationship between suicide and insight in mood disorders. Evaluate the relationship between insight and suicidal ideation or behavior in bipolar depression. A group of 165 bipolar patients were followed up along 1 year. Each patient's mood was assessed in every consultation according to DSM-IV-TR criteria. Suicidal ideation and behavior were prospectively assessed through item 3 of HAM-D whenever a major depressive episode was diagnosed. Insight was evaluated through the Insight Scale for Affective Disorders. A history of suicidal attempts was associated with worse insight in 60 patients with one episode of bipolar depression. The difference remained even when the supposed effect of depression over insight was controlled. No correlation between current suicidal ideation and insight level was found though. Our results suggest that a history of suicide attempts may correlate with higher impairment of insight in bipolar depression. No relationship was found between current suicidal ideation and insight.

Keywords Insight · Suicide · Bipolar depression

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Introduction

Suicide is a relatively common outcome in bipolar disorder (BD). Among bipolar disorder patients, 25–50 % attempt suicide at least once [1, 2] and 11–19 % die as a consequence of such attempts [3]. A few risk factors for suicide completion in BD have already been described such as previous suicidal attempts [1], higher severity of affective episodes [1], depression [4] and suicidal ideation [5].

Studies on insight in psychiatric patients have assessed subjects' capability of recognizing their general state, the importance of treatment, its social consequences and presence of symptoms [6, 7]. Studies have shown a positive correlation between suicidal ideation or attempts and higher level of insight in schizophrenic patients [8, 9]. Nevertheless, few studies have so far evaluated the relationship between insight and suicide in mood disorders [10–12].

Understanding the correlation between insight and suicide in BD may help professionals identify risk factors as well as elaborate preventive measures. The objective of the present study was to assess the relationship between insight and suicidal behavior or ideation in bipolar depression.

Methods

Sample

This study was performed in the bipolar disorder outpatient research clinic in the Institute of Psychiatry of the Federal University of Rio de Janeiro (Instituto de Psiquiatria da Universidade Federal do Rio de Janeiro—UFRJ), between July, 2014 and June, 2015. This study was approved by the local Ethics Commitee.

The inclusion criteria were: being diagnosed with BD Type I or Type II, 18 years old or older, having signed the informed consent form and having had an episode of major depression. Patients with depression in BD were chosen for the study because this kind of episode presents the highest level of suicidal behavior or ideation.

Clinical Evaluation

Identification data were collected as well as information on educational level, sex and age of each patient. The number of previous suicidal attempts was assessed and the diagnosis was formulated according to the DSM-IV-TR criteria through semi-structured interview SCID [13].

The affective state of each patient was evaluated according to DSM-IV-TR criteria in each appointment. Whenever an episode of major depression was diagnosed the following scales were administered: *Hamilton Depression Scale* (HAM-D) [14], *Young Mania Rating Scale* (YMRS) [15], *Positive And Negative Syndrome Scale* (PANSS-p)/positive symptom subscale [16] and *Clinical Global Impressions Scale for use in bipolar illness—depression subscale* (CGI-BP-d) [17]. Current suicidal ideation and behavior were prospectively assessed through item 3 of HAM-D whenever a major depressive episode was diagnosed.

The patients were also assessed with the "Insight Scale for Affective Disorders" (ISAD), developed by Olaya et al. [18], translated into Portuguese and adapted for use in Brazil by Silva et al. [19]. The instrument, based on the Scale to Assess Unawareness of

Mental Disorders (SUMD) [6], is a multidimensional assessment consisting of 17 items. Each question is scored from 0 to 5, with higher scores representing worse insight.

Statistical Analysis

Participants were categorized according to their previous history of suicide attempts and current suicide ideation. In order to increase statistical power for the analysis, the variables were recorded as binary (i.e. with versus without history of suicide attempts; with versus without current thoughts or behaviour related to suicide). In the latter variable, scores above 0 in item #3 of HAM-D were considered evidence of passive or active suicide ideation. Independent samples t-tests were then calculated to explore group differences in terms of demographic (age and years of education) and clinical variables (insight: total ISAD scores; depressive symptoms: total HAM-D scores; mania: total YMRS scores; presence of psychotic symptoms: total PANSS scores). Chi square tests were used to investigate differences in gender distribution and Mann–Whitney tests were calculated to explore differences in depressive syndrome severity (CGI-BP-d).

Considering the focus of the study, differences in insight between groups were further explored with ANCOVAs, controlling for the effect of any demographic or clinical variables that exhibited significant differences when comparing groups.

Results

Among the 165 patients with BD diagnosis followed up during the study period, 60 had a major depressive episode and were therefore selected. The sample was formed by 13 women and 47 men, all bipolar type I.

Table 1 Clinical and demographic characteristics of patients with or without previous history of suicide attempt

	Previous attempts (n = 23) M (SD)	No previous attempts (n = 37) M (SD)	*p* value
Age	48.1 (15.7)	50.2 (11.2)	.546
Years of education	12.3 (3.5)	12.5 (3.6)	.839
Gender*	18/5	29/8	.991
HAM-D	15.3 (4.7)	12.8 (4.5)	.041
YMRS	3.5 (3.1)	3.1 (3.0)	.627
ISAD	18.6 (11.7)	13.1 (4.3)	.012
PANSS-p	7.8 (1.2)	7.9 (1.6)	.730
CGI-BP-d	4.1 (1.0)	3.6 (0.7)	.099

* #male/female; *HAM-D* Hamilton Rating Scale for Depression, *YMRS* Young Mania Rating Scale, *ISAD* Insight Scale for Affective Disorders, *PANSS-p* Positive and Negative Syndrome Scale, positive symptoms subscale, *CGI-BP-d* clinical global impression-bipolar—depression subscale

History of Suicide Attempts and Insight

Results can be seen in Table 1. From the 60 patients with bipolar disorder, 23 had at least one previous suicidal attempt. There were no differences between groups in demographic variables: gender (χ^2 [1] = 0.1, p = .991), years of education (t [58] = 0.2, p = .839) or age (t [58] = 0.6, p = .546). There were no significant group differences in the severity of mania (t [58] = 0.5, p = .627), illness severity (CGI-BP-d: z = 1.6, p = .099) or psychotic symptoms (t [58] = 0.3, p = .730). However, a history of previous suicidal attempt was correlated with a lower level of insight (t [58] = 2.6, p = .012) and higher severity of depressive symptoms (t [58] = 2.1, p = .041). Differences in insight remained significant after the inclusion of depression as a covariate (p = .021).

Current Active/Passive Suicide Ideation and Insight

Results can be seen in Table 2. From the 60 patients, 27 had current active/passive suicide ideation. There were significant differences between groups in terms of severity of depressive symptoms, HAM-D, (t [58] = 3.7, p < .001). However, no other differences were significant: insight (t [58] = 0.1, p = .950); age (t [58] = 0.8, p = .446); years of education (t [58] = 1.9, p = .061); gender (χ^2 [1] = 0.1, p = .925); mania severity (t [58] = 1.2, p = .246); psychotic symptoms (t [58] = 1.2, p = .246); illness severity (CGI-BP-d: z = 0.7, p = .497). Inclusion of depression as a covariate did not lead to significant group differences in insight (p = .677).

Discussion

The findings indicate that a history of suicidal attempts is associated with worse insight among patients with current bipolar depression. Such difference remained even when the supposed effect of depression over insight was controlled for using an ANCOVA. No differences in insight were found between patients with or without current suicidal ideation.

The finding linking previous history of suicide with poorer insight may be related to cognitive explanations of self-awareness. There is evidence suggesting that impaired and

Table 2 Clinical and demographic characteristics of patients with or without current suicide ideation

	Active/passive suicide ideation (n = 27) M (SD)	No suicide ideation (n = 33) M (SD)	p value
Age	48.0 (12.8)	50.6 (13.3)	.446
Years of education	13.4 (3.1)	11.7 (3.7)	.061
Gender*	21/6	26/7	.925
HAM-D	16.0 (4.7)	11.9 (3.8)	<.001
YMRS	3.7 (3.2)	2.8 (2.8)	.246
ISAD	15.1 (9.7)	15.3 (6.5)	.950
PANSS-p	8.1 (1.5)	7.7 (1.4)	.246
CGI-BP-d	3.8 (0.9)	3.9 (0.9)	.497

* #Male/female; *HAM-D* Hamilton Rating Scale for Depression, *YMRS* Young Mania Rating Scale, *ISAD* Insight Scale for Affective Disorders, *PANSS* Positive and Negative Syndrome Scale, positive symptoms subscale, *CGI-BP-d* clinical global impression–bipolar–depression subscale

overgeneral autobiographicalmemory is associated with suicidality in depression [20]. It is possible that patients who have attempted suicide before have overgeneral memories about themselves, showing poor insight about condition. It could be argued that patients with a history of suicidal attempts have more severe BD, and thus poorer insight, but this is unlikely, considering there were no differences between groups in terms of illness severity.

Contrary to our results, a few studies found a correlation between suicidal behavior and a better insight. One of those studies had a sample of patients with schizophrenia [21]. According to the author, as the insight level regarding the disorder increases and the psychosocial impairment become more clear to the patient—like the lack of skills to deal with their disorder—they get more susceptible to depressive mood and, consequently, to suicidal behavior [22]. Misdrahi et al. [23] observed that depressive symptoms and a higher level of insight were associated with suicidal behavior in schizophrenic patients. Gonzalez [12], researched a group of 1009 schizophrenic patients and concluded that the recognition of having a mental disorder was significantly related to suicidal ideation and behavior, both prospective and retrospectively. In contrast, Bourgeois et al. [24] found no significant correlation between insight and suicidal behavior after controlling for the effects of depression in schizophrenic patients.

Studies on BD patients [10–12], also in contrast with the current findings, found a correlation between higher level of insight and suicidal behavior. Different sampling strategies may be behind the discrepancy in findings, with previous studies including samples of bipolar patients that were not in depression. Acosta et al. [10] assessed insight in a sample of 102 bipolar patients in remission through SUMD. They found that higher insight levels about the disorder correlated with higher suicidal ideation. Gonzalez [12] also found 297 type I bipolar patients with correlation between higher insight level and suicidal ideation. Finally, Yen et al. [11] evaluated a group of 96 type I bipolar patients in remission through insight scales SAI [25] e SAI-E [26]. They found that the patients that had presented suicidal ideation or attempts along the previous year had higher levels of insight as compared to those without suicidal ideation or attempts.

Studies on insight and suicide in unipolar depression are more scarce and heterogeneous. Gonzalez et al.'s study [12] showed that patients with recurring major depression and better insight had backgrounds of suicidal ideation or attempts. On the other hand, Yen et al. [27] could not find any correlation between the insight level and suicidal risk in patients with depression through the use of the Mood Disorders Insight Scale prospectively along 1 year.

The present study had a few limitations. Insight was evaluated only cross-sectionally. Since insight may vary along time, especially depending on the affective state of the bipolar patient [28–30], studying possible correlations with suicidal ideation or behavior would benefit from a longitudinal approach. Another limitation was assessing ideation and behavior through a single item of a depression scale instead of using a specific instrument to assess the possibility of suicide.

Conclusion

Our results suggest that a history of suicide attempt may correlate with higher impairment of insight in bipolar depression, with no relationship being found between current suicidal ideation and insight. Nevertheless, studies on the topic are still scarce and heterogeneous and for that reason the question remains unanswered.

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Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent Informed consent was obtained from all individual participants included in the study.

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