Extreme attributions predict suicidal ideation and suicide attempts in bipolar disorder: prospective data from STEP-BD

Individuals with bipolar disorder (BD) experience high rates of suicide, with previous reports indicating that 25 to 50% of people with this disorder have a lifetime history of a suicide attempt (1). Few studies of patients with BD have evaluated psychosocial predictors of suicidal ideation and suicide attempts (2,3).

Negative life events and hopelessness often precipitate suicide attempts (2), but not all individuals who experience negative events go on to make a suicide attempt. In BD and major depressive disorder, the tendency to make "extreme" rigid, black-or-white attributions about the causes of life events (e.g., "I'm a total failure") is associated with a poorer course of illness (4-6). However, whether extreme attributions are linked to suicidal ideation and suicide attempts in BD remains unexplored.

The present study evaluated the relationship between extreme attributions, history of suicide attempts, and the occurrence of suicidal ideation among depressed patients with BD.

Study participants were 100 depressed patients with DSM-IV bipolar I (61%) or II (39%) disorder. This was a subsample of the 293 outpatients enrolled in the randomized, controlled trial (7) comparing the efficacy of psychotherapy and collaborative care treatment as part of the Systematic Treatment Enhancement Program for Bipolar Disorder (STEP-BD) (7), who had received an assessment of attributional style and had valid data about lifetime suicide attempt history.

Diagnoses of BD and evaluation of suicide attempts were made by study psychiatrists using the Affective Disorders Evaluation (8). The Clinical Monitoring Form (9) was used to evaluate mood symptoms, including presence of suicidal ideation, at each visit over a one-year period.

The Attributional Style Questionnaire (ASQ, 10) was used to measure extreme attributions. Participants rated the perceived cause of twelve hypothetical life events on 7-point Likert scales in terms of internality ("due to me" vs. "due to others"), stability ("always" vs. "never present"), and globality ("all situations" vs. "only this situation"). Consistent with prior studies (4-6), we computed variables representing total attributional style (ASQ total) and the number of "extreme" attributions (ratings of 1 or 7). Internal consistency was good (alpha=.76).

Of the 100 participants, 31% had a previous history of a suicide attempt. Seventy-one percent experienced the occurrence of suicidal ideation across up to a year of follow-up.

Logistic regression analyses indicated that, after controlling for bipolar status (I vs. II), patients who made more extreme attributions were more likely to have a history of making a suicide attempt (OR=1.06, p=0.04, ΔR^2=0.06). This effect remained significant when controlling for initial symptoms of depression and mania, bipolar type, gender, age, age of onset of BD, presence of comorbid anxiety disorder, number of lifetime anxiety disorders, number of comorbid psychiatric disorders, and sleep (OR=1.08, p=0.02, ΔR^2=0.07), but was reduced to non-significance when controlling for number of lifetime episodes of depression and mania/hypomania (OR=1.06, p=0.12, ΔR^2=0.03). In contrast, general attributional style did not significantly predict history of suicide attempts (OR=1.01, p=0.61, ΔR^2<0.01).

Hierarchical logistic regressions indicated that there was a significant interaction between extreme attributions and history of a suicide attempt in predicting the occurrence of suicidal ideation during the study's prospective period, above and beyond initial depression severity (OR=1.20, p=0.03, ΔR^2=0.07). Extreme attributions predicted a significantly greater likelihood of the occurrence of suicidal ideation among patients with a suicide attempt history (t=2.08, p=0.04), but not among patients without a suicide attempt history (t=-0.64, p=0.52). These results remained significant when controlling for psychosocial treatment condition, initial symptoms of mania, number of psychosocial treatment sessions, days in the study, bipolar I or II status, age, gender, education, number of lifetime episodes of depression and mania/hypomania, number of comorbid psychiatric diagnoses, psychiatric medication load, and age at onset of BD (interaction term: OR=1.37, p=0.01). In contrast with extreme attributions, general attributional style did not significantly predict the occurrence of suicidal ideation, either as a main effect or in interaction with suicide attempt history (OR=1.01, p=0.89, ΔR^2<0.01).

Our findings suggest that evaluating extreme thinking styles may be important in identifying which bipolar patients are at risk for suicide. Limitations of this study include that the sample was receiving psychosocial treatment for bipolar depression, so that the extent to which these results generalize to patients not in psychotherapy remains to be explored. Due to the low base rate, we could not evaluate suicide attempts prospectively, so that the causal direction between extreme attributions and suicide attempts is not clear.

In conclusion, clinicians should consider evaluating extreme attributions in BD, as they may be relevant to understanding and potentially reducing the substantial burden of suicide in this disorder.

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