RISK FACTORS FOR SUICIDE IN BIPOLAR DISORDER:
PRELIMINARY RESULTS FROM A SYSTEMATIC REVIEW WITH PLANNED META-ANALYSES AND META-REGRESSION

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BACKGROUND

- Suicide risk is substantially elevated in bipolar disorder (BD), with ~34% of individuals attempting suicide and suicide mortality reported in up to 15%.[1,2]
- Key correlates include depressive or mixed episodes, rapid cycling, longer illness duration, previous suicide attempts, and psychiatric comorbidities.[3–7]
- Five systematic reviews have synthesized this evidence, but only one meta-analysis examined correlates of suicide attempts and suicide deaths in adults with BD.[8–12]
- Published in 2015, that meta-analysis highlights the need for an updated quantitative synthesis incorporating subsequent evidence.[12]

OBJECTIVE I Identify the main risk factors associated with suicidal ideation, suicide attempts and suicide deaths in BD.

METHODS

Design

Systematic review with meta-analyses and meta-regression.

Search & registration

PubMed, EMBASE, Web of Science, PsycINFO, CINAHL and Scopus; no language or date restrictions. PRISMA; PROSPERO CRD42023452119.

Eligibility

Observational studies including adults (≥18 years) with DSM/ICD-confirmed BD and groups with vs. without suicidal behavior.

Planned synthesis

Random-effects models · 95% CI · Cochran Q · I^2 · sensitivity analyses · meta-regression.

STUDY SELECTION

SEARCH THROUGH AUGUST 2023

6,115 records identified

1,400 full-text articles assessed

146 studies included

STUDY CHARACTERISTICS

146 studies included	**1994–2023** publication years	**144** published in English
36 from the United States	**18** from Brazil	**17** from Italy

Study design

104 cross-sectional
23 cohort
18 case-control
1 multisite naturalistic

Study quality

88 good
51 fair
7 poor

OUTCOMES

Number of studies contributing to each outcome category

135	**Suicide attempt**
43	**Suicidal ideation**
11	**Suicide death**

Studies may contribute to more than one outcome category.

SAMPLE CHARACTERISTICS

Sample characteristics were available for 129 of the 146 included studies.

721,794
participants across 129 studies; sample size range: 31–510,611

41.8 mean age (years) n = 80 studies	**58.7%** female n = 99 studies	**36.9%** lifetime suicide attempt n = 102 studies	**50.6%** Psychotic symptoms n = 27 studies	**25.1%** Rapid cycling n = 28 studies	**17.1%** Family history of suicide n = 29 studies	**29.0%** Comorbid substance use disorder n = 36 studies; **40.6%** Comorbid anxiety disorder n = 28 studies

70.9% Bipolar I disorder n = 91 studies

30.7% Bipolar II disorder n = 81 studies

Percentages are mean proportions across studies reporting each characteristic; n = number of studies.

PRELIMINARY META-ANALYSIS

Using studies identified in the original search through August 2023, we attempted a preliminary meta-analysis of risk factors for suicide death. Quantitative pooling was not feasible because too few studies reported comparable risk-factor effect estimates

CURRENT STATUS

- The findings presented here are based on the original literature search conducted through August 2023.
- The literature search is currently being updated through 2026.
- Newly identified eligible studies will be incorporated before the final meta-analyses and meta-regression.

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TAKE-HOME MESSAGE

- Preliminary findings identified a large evidence base covering suicidal ideation, suicide attempts, and suicide death in adults with bipolar disorder.
- Suicide attempts were the most frequently assessed outcome, whereas substantially fewer studies evaluated suicide death.
- The updated search through 2026 will provide the evidence base for the planned final meta-analyses and meta-regression.