



# PREVALENCE OF ALCOHOL USE DISORDER AND ITS CLINICAL IMPACT IN BIPOLAR DISORDER: A SYSTEMATIC REVIEW AND META-ANALYSIS

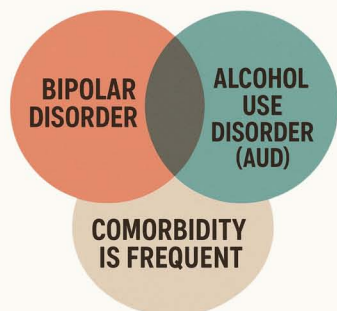


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## 01 Introduction



Bipolar disorder is among the most disabling psychiatric conditions worldwide and is frequently complicated by comorbid Alcohol Use Disorder (AUD)

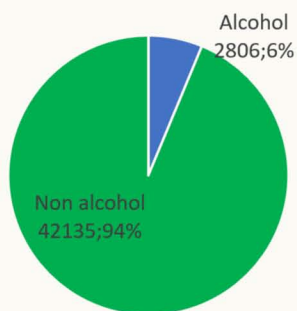
## 02 Objective

To systematically review and meta-analyze the prevalence of AUD in individuals with bipolar disorder

## 03 Methodology

Observational studies reporting prevalence of AUD in bipolar disorder or assessing its clinical impact were included. Random-effects models were planned for quantitative synthesis, with heterogeneity and publication bias formally evaluated.

### POOLED PREVALENCE

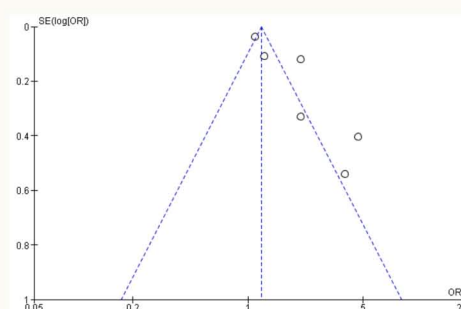
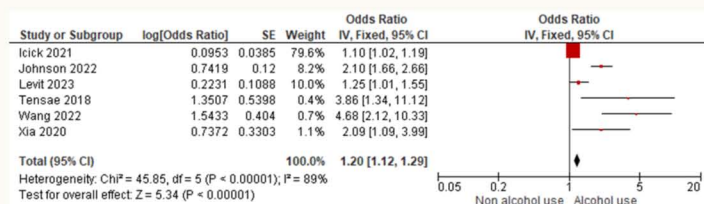


The combined estimate across all six studies showed an overall odds ratio of 1.20 (95% CI: 1.12–1.29;  $p < 0.00001$ ).

The analysis demonstrated substantial heterogeneity ( $\text{Chi}^2 = 45.85$ ,  $\text{df} = 5$ ,  $p < 0.00001$ ,  $I^2 = 89\%$ ). Considerable variation among studies

## 04 Result

| No | Author, year Country             | Methods              | Samples                     | Prevalence         | Result                                                                                                              |
|----|----------------------------------|----------------------|-----------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------|
| 1  | (Tretyak et al., 2020) USA       | Observational study  | 24 bipolar, 24 non-bipolar  | 2 AUD (8%)         | Orbitofrontal cortex biology contributes to differences in alcohol sensitivity in bipolar disorder.                 |
| 2  | (Simhandl et al., 2016) Spain    | Observational study  | 284 bipolar                 | 57 AUD (20,1%)     | Negative long-term impact of alcohol use disorders on bipolar disorder with more depressive bipolar I episodes.     |
| 3  | (Johnson et al., 2022) Australia | Epidemiologic survey | 36.309 alcohol use disorder | 922 bipolar (2,7%) | Bipolar increase risk of alcohol used disorder with adjusted odd ratio 2.1 (1.66 -2.67)                             |
| 4  | (Xia et al., 2020) China         | Longitudinal study   | 238 bipolar                 | 74 AUD (31%)       | Male were independently associated with AUD with OR 2.09 (1.094-3.979)                                              |
| 5  | (Smith et al., 2025) USA         | Cohort study         | 788 bipolar                 | 337 AUD (42.8%)    | More alcohol impairment prospectively led to greater suicidal ideation and increases risk in bipolar disorder       |
| 6  | (Icick et al., 2021) France      | Cross sectional      | 2.804 bipolar               | 269 AUD (9.59%)    | BD patients with comorbid AUD showed more severe clinical profile than those without (OR 1.1, $p < 0.001$ )         |
| 7  | (Tensae et al., 2018) Ethiopia   | Cross sectional      | 412 bipolar                 | 101 AUD (24.5%)    | The prevalence of co-morbid alcohol use disorder was high (OR 3.86, 1.34-11.29).                                    |
| 8  | (Horwitz et al., 2017) USA       | Longitudinal study   | 296 bipolar                 | 46 AUD (15.5%)     | Longitudinal data on youth with elevated manic symptoms are predictors of initiation and regular use of substances. |
| 9  | (Levit et al., 2023) USA         | Cohort study         | 2.361 bipolar               | 849 AUD (35.9%)    | The regression coefficient for the association between SMI (BDwP, BD, SCZ) and AUD odds ratio of approximately 1.25 |
| 10 | (Wang et al., 2022) China        | Cross sectional      | 1.393 bipolar               | 138 AUD (9.9%)     | Bipolar increased risk of drinking alcohol with odd ratio 4,68 ( $p < 0.03$ )                                       |
| 11 | (Glastad et al., 2025) Norway    | Longitudinal study   | 32 bipolar                  | 11 AUD (34.3%)     | Mood influences alcohol- and nicotine use and vice versa in individuals with BD.                                    |



## 05 Conclusion

These findings highlight the clinical importance of systematic screening for alcohol misuse in bipolar populations and the integration of addiction management into standard psychiatric care.

## References

