# Factors influencing delays in the diagnosis and treatment of bipolar disorder in adolescents and young adults: A systematic scoping review.

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## Background

Bipolar Spectrum Disorders (BSD) include complex psychiatric conditions that typically manifest during late adolescence and early adulthood. Delays in diagnosis and appropriate treatment lead to negative clinical and functional outcomes.[1] International studies have reported that Bipolar Disorder (BD) often goes unrecognized and untreated for 5-10 years; many experience even greater delays, including youth.[2] However, the factors that delay recognition, diagnosis, and treatment of BSD in adolescents and young adults have not been systematically explored.

## Aims

Determine the known factors that contribute to delays in the treatment of BD in adolescents and young adults and identify current knowledge gaps.

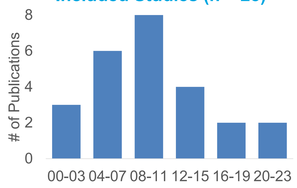
## Methods

A conceptual framework based on the *Model of Pathways to Treatment* by Scott and colleagues[3] was used as a foundation for our search and extraction strategy to ensure a systematic review of potential contributing factors. Following PRISMA guidelines, Embase, PsycINFO, MEDLINE, and CINAHL databases were queried with the search parameters detailed below. Two reviewers independently screened abstracts and subsequently full texts for inclusion, using Covidence, a systematic review management tool.

| | |
|---|---|
| **Population** | **Age 13 – 24 years**<br>**Diagnosis of bipolar spectrum disorder** |
| **Concept** | **Patient, disease and healthcare system-provider factors related to the components of delay in the diagnosis and treatment of bipolar spectrum disorder.** |
| **Context** | **All clinical settings (inpatient, outpatient).**<br>**Geography: No limits**<br>**Publication type: Primary qualitative and quantitative research published in peer-reviewed journals.**<br>**Language: English.**<br>**Publication date: 2000 – 2023.** |

5257 Unique article abstracts were retrieved; 254 met criteria for full text review of which 229 were excluded:
55% lacked data on delays,
28% were out of target age range,
12% were not specific to BSD,
5% excluded for other reasons.
The final extraction included 25 studies.

**Publication Year of Included Studies (n = 25)**




## Identified Factors

| Interval: / Factors: | Appraisal<br>Onset of mood symptoms | Help-Seeking<br>Seeking clinician assessment | Diagnostic<br>Encounter with clinician | Pre-Treatment<br>Initiation of indicated treatment |
|---|---|---|---|---|
| **Patient**<br>Individual<br>Family<br>Socioeconomic | ↑↑ Delay with misattribution of symptoms to substance use or reactions to trauma/life events.[4] | ↑↑ Delay with younger age[5,6,7] and male gender[5]<br>↑↑ Sought traditional healers with ↓↓ education & ↓↓GAF; age, gender, religion, and family history was not associated with this.[8]<br>Indigenous status was not associated with delays (New Zealand).[9] | ↑↑ Delay with younger age,[10,11,12] though this may be due to delays in help-seeking[5]. Gender & race were not associated with delays.[10,13,14]<br>Stability of new diagnosis was not affected by age, gender, or geographical region (US).[15,16]<br>Lack of family history of BSD increased chances of a missed diagnosis.[17]<br>Indigenous status was associated with high rates of a diagnosis of schizophrenia following episode of affective psychosis (New Zealand).[9] | Mixed evidence on role of age[10,15,22,23,24] and race[10,23] for treatment initiation and initial adherence; treatment initiation not associated with gender.[10]<br>Black Americans had ↓↓ initial adherence and were more likely to be prescribed antipsychotics, but had no difference in dose & duration of antipsychotics nor in prescription of mood stabilizers.[25]<br>↑↑ Initial adherence with ↑↑subjective rating of treatment helpfulness[25] and ↑↑socioeconomic status.[26]<br>↓↓ Adjunct psychotherapy for rural residents, though this had no association with pharmacotherapy.[23] |
| **Illness**<br>Disease<br>Comorbidity | - | ↑↑ Sought traditional healers with presence of hallucinations yet overall ↓↓psychiatric comorbidity; BD type, episode type & severity, # of episodes, and delusions did not influence this.[8] | ↑↑ Delay with initial depressive polarity[12,18], absence of grandiosity & psychosis[10], or absence of subjective disability[10].<br>Acute vs insidious onset[10] and bipolar type[14] were not associated with delays in diagnosis.<br>↑↑ Stability of diagnosis with greater clinical resource needs, fewer psychiatric comorbidities prior to BSD diagnosis, yet greater psychiatric comorbidities after BSD diagnosis.[15,16] | Though first episode and treatment occurred earlier in BD1,[27] Bipolar type was not associated with delay to first treatment.[10,27]<br>↑↑ Delay with absence of subjective disability[10] or a history of suicide attempts[10]; presence of psychosis had mixed evidence[10,24].<br>Acute vs insidious onset was not associated with delays in diagnosis.[10]<br>↑↑ Delay with prior or comorbid history of ADHD,[24] alcohol use disorder[10,23,25] or other substance use disorder[25,28].<br>↓↓ Initial adherence with comorbid ADHD and alcohol use disorder.[26] |
| **Systemic**<br>Clinician<br>Health System | - | Of those who sought traditional healers, 2/3 did so before contacting psychiatric services.[8] | Lack of systematic screening for BSD in patients referred for MDD contributes to misdiagnosis.[20,21]<br>Diagnostic agreement between referring providers and psychiatrists is poor.[14]<br>↑↑ Delay due to wait-times to see a psychiatrist.[18]<br>↑↑ Stability of diagnosis with managed care and diagnosis by a mental-health professional.[16] | ↑↑ Delay in the US than Europe, regardless of polarity or age at onset.[22]<br>↑↑ Likelihood of recommended pharmacotherapy for those who had received care from a psychiatrist[23,24], prior inpatient & outpatient mental health care[23], but not prior psychotherapy.[24]<br>↑↑ Initial adherence with ↑↑# of non-medication related mental health contacts[25]<br>↑↑ Likelihood of adjunct psychotherapy with prior outpatient mental health care and with delayed but continuous use of a mood stabilizer[15]; yet ↓↓ for those who had prior inpatient care[23], and received medical coverage through disability status rather than poverty or foster status[24]. Not associated with care from psychiatrist vs. primary care provider.[23]<br>Likelihood of standard monitoring of serum drug levels and side effects was greater in those treated by a primary care provider, but not a prior history of inpatient care nor outpatient care.[23]<br>↑↑Continuity of treatment with continuity of diagnosis[15]; delayed treatment start did not predict later continuity of treatment.[15] |

## Key Results & Conclusions

- The *Model of Pathways to Treatment* framework systematically identifies the barriers and facilitators of timely recognition, diagnosis, and effective treatment of BSD.
  This framework would likely be of value to studying other psychiatric conditions as well.
- A wide variety of patient, illness, and systemic factors are associated with delays across the trajectory to effective treatment;
  non-modifiable factors were common.
- This systematic approach identified a **relative paucity of research around the appraisal and help-seeking intervals** in adolescents and young adults.
  Future studies should be designed to evaluate these intervals; we hypothesize that key modifiable factors may exist in these intervals.
- The most common reason that studies were excluded from our review was a lack of reported chronological data regarding illness onset, help-seeking, diagnosis, and treatment initiation.
  Where possible, collecting this data should be encouraged in future studies.
- Publication of **included studies peaked in the late 2000s**, suggesting a concerning trend.
- Limitation: Present study is not generalizable to those with onset before age 13 or after 24.

**Published Protocol**

**Contact & References**

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