

Association of Pediatric Bipolar Disorder and Substance Use Disorders in Adulthood in a 25-Year Prospective Cohort

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BACKGROUND

Pediatric bipolar disorder (PBD) is associated with significant psychosocial impairment and often presents with comorbid psychiatric disorders. Comorbid adolescent substance use disorder and pediatric bipolar disorder confer additional risk, including higher rates of lifetime hospitalizations and lifetime suicide attempts. The directionality of the relationship between pediatric bipolar disorder and substance use disorder is less clear and there is a paucity of prospective data.

OBJECTIVES

Analyze associations between pediatric bipolar disorder and substance use disorder from childhood to adulthood in a prospective cohort using 25-year follow-up data.

METHODS

Participants recruited from outpatient primary care and mental health clinics (groups: PBD*, ADHD without BPD, and control)

WASH-U-KSADS administered to parent and child informants by trained clinical interviewer at initial visit

Follow up every 6 months to 24 months for 12 years and a final assessment at 25 years

120 participants were included in analyses
(PBD N=56, ADHD N=20, control N=45)

Logistic regression used to assess longitudinal relationship between bipolar disorder and substance use disorder from childhood to adulthood*

Criteria for pediatric bipolar disorder:

- Had to meet DSM-IV symptom criteria for bipolar disorder and had to include grandiosity or elation
- Did not have to meet DSM-IV episodicity requirements

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RESULTS

Participants with PBD or ADHD had higher rates of pediatric SUDs.

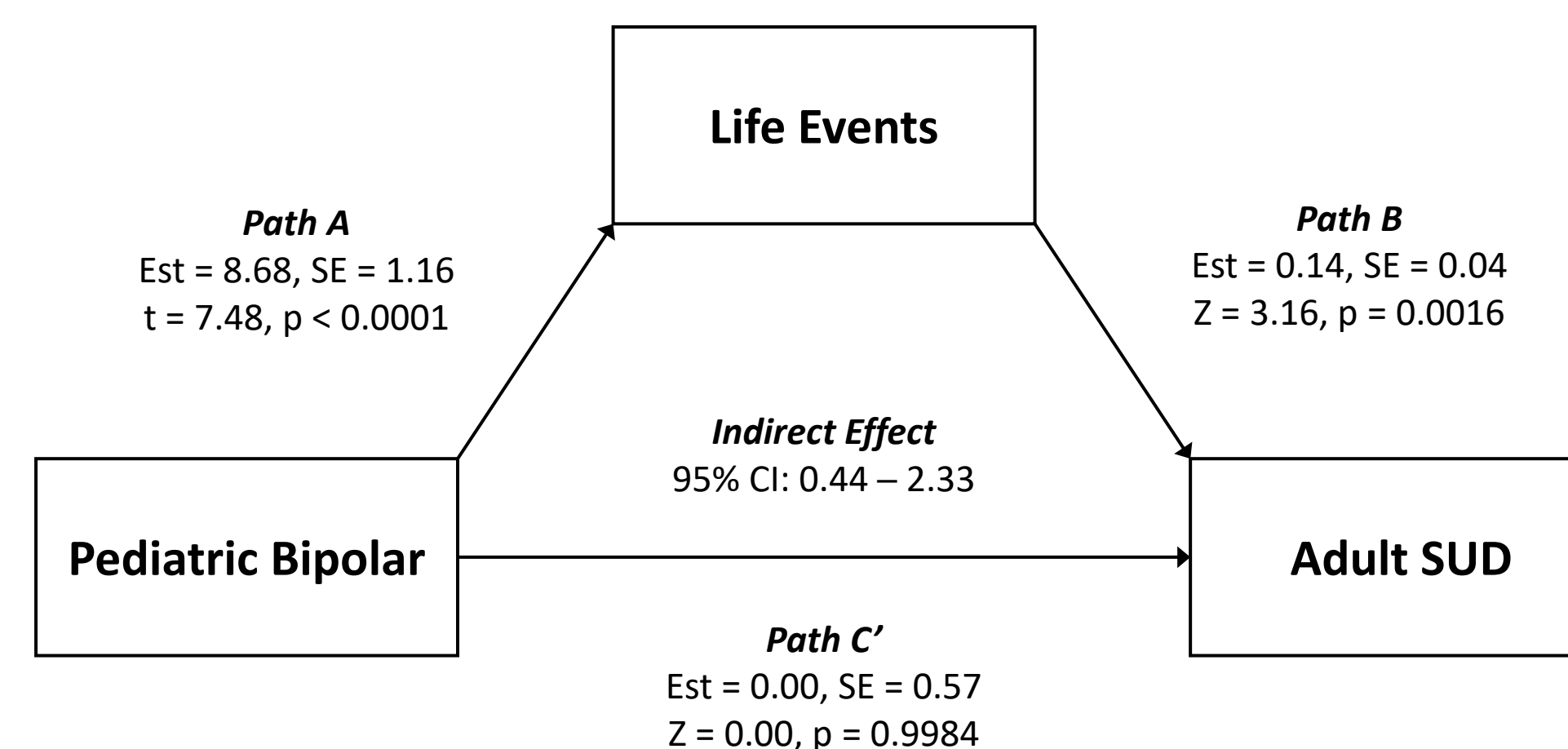
	Pediatric Bipolar (N=56)		Pediatric ADHD (N=20)		Pediatric Control (N=45)	
	%	N	%	N	%	N
SUD prior to age 18	26.8	15	10.0	2	0.0	0

Participants in the PBD group and ADHD group had higher likelihood of SUDs in adulthood than those in the control group.

# of SUDs	Pediatric BD (N=55)		Pediatric ADHD (N=20)		No PBD or ADHD (N=45)	
	%	N	%	N	%	N
0	43.6	24	50.0	10	86.7	39
1	30.9	17	35.0	7	8.9	4
2	16.4	9	15.0	3	2.2	1
3	9.1	5	0.0	0	2.2	1

Logistic regression predicting adult SUD demonstrates a relationship between PBD and adult SUD when controlling for pediatric SUD.

	X ²	P-value
Female Sex	6.70	0.0097
Pediatric SUD	3.07	0.0795
Pediatric Bipolar Disorder	7.87	0.0050



SECONDARY RESULTS

There was no statistical difference in rates of SUD between those with pediatric bipolar disorder and pediatric ADHD without bipolar disorder ($X^2 = 0.24$, $p=0.62$).

PBD participants with a diagnosis of SUD in adulthood compared to those without adult SUD had a non-significant trend toward worse overall functioning (measure via GAF) ($t = -1.92$, $p=0.06$).

Participants with PBD and SUD in adulthood were more likely to have a depressive episode in adulthood ($X^2 = 7.20$, $p=0.007$) than those with PBD without SUD in adulthood.

CONCLUSIONS AND SIGNIFICANCE

- PBD and ADHD are associated with pediatric SUD.
- PBD and ADHD are associated with increased odds of SUD in adulthood.
- The risk conferred by PBD on adult SUD is not solely attributable to pediatric SUD and is partially mediated by adverse life events.
- Participants with PBD and adulthood SUD have a trend toward worse overall functioning compared to PBD without adult SUD
- Understanding the increased risk for SUDs in those with PBD is important for elucidating risk factors for SUD and providing an opportunity for intervention to decrease morbidity related to pediatric mood disorders.

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