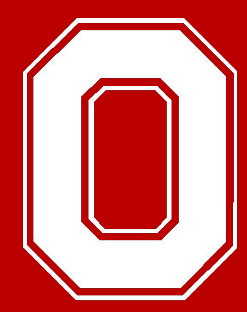


Inequities in Bipolar Disorder Treatment: A Focus on Racial and Ethnic Minority Youth

Authors: Kristy Nguyen BS¹, Elyse Llamocca PhD², Rui Huang², Danielle Steelesmith PhD², Cynthia Fontanella PhD²

Institutions: The Ohio State University College of Medicine¹, Abigail Wexner Research Institute at Nationwide Children's Hospital²



THE OHIO STATE UNIVERSITY

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Abstract

Objective: To examine racial and ethnic differences in guideline-concordant care among Medicaid enrolled youth with pediatric bipolar disorder (PBD).

Methods: A retrospective multi-state cohort study compared proportions of non-Hispanic White (NHW), non-Hispanic Black (NHB), and Hispanic youth aged 10-17 years with a new bipolar disorder episode from 2017 to 2018, meeting four key measures of care. To examine differences by race/ethnicity in prescription fill patterns and receipt of our four guideline-concordant care measures, we utilized chi-square tests, post-hoc adjusted residual analyses with a Bonferroni correction, and generalized linear mixed models.

Findings: Two-fifths (39.5%) of the cohort filled prescriptions for mood stabilizers and/or antipsychotic medication for at least 60 continuous days within 365 days following a new PBD episode; few (17.5%) received antidepressant monotherapy for at least 60 continuous days; and about half (47.6%) received psychotherapy within 90 days. Rates of antidepressant monotherapy and psychotherapy receipt did not significantly differ between Hispanic and NHW youth. However, compared to NHW youth, Hispanic (OR=0.70 [95% CI: 0.64-0.77]) and NHB (OR=0.58 [95% CI: 0.53-0.63]) youth were both less likely to fill mood stabilizers or antipsychotics. Moreover, NHB youth were less likely to receive antidepressant monotherapy (OR=0.57 [95% CI: 0.50-0.64]) and psychotherapy (OR=0.89 [95% CI: 0.81-0.97]) compared to NHW youth.

Impact: PBD is a serious public health concern, as youth with PBD have increased risk for suicide and poor psychosocial outcomes. This study demonstrates a disproportionate burden of unmet treatment needs among racially and ethnically diverse youth, highlighting the imperative for intentional, equity-centered interventions targeting minority youth with PBD.

Background

- PBDs are a type of chronic, recurrent, and disabling juvenile mood disorder characterized by episodes of mania or hypomania and depression, and high rates of comorbid psychiatric disorders.
- Among adolescents, PBD is the fourth leading cause of years of life lost because of premature mortality and years lost due to disability.
- In general, racial and ethnic minority youth are often under-prescribed treatment across a variety of mental health disorders.
- Evidence in adult populations suggests that racial and ethnic minorities, particularly Black patients, are less likely to receive adequate care for bipolar disorder.
- While these phenomena have been well-documented in the U.S. among adults, there is a striking lack of data on whether racial and ethnic disparities in bipolar treatment also exist in pediatric populations.

Methods

Design and Sample

- Retrospective longitudinal cohort study
- Multi-state
- Youth aged 10-17 years
- Continuous Medicaid enrollment before and after first PBD claim
- 2017 to 2018 (N = 137,639)
- Exclusions: autism, depressive disorder with psychosis, intellectual disabilities, or schizophrenia during pretreatment period

Variables

- Race/ethnicity
- Demographics: age, sex, category of Medicaid eligibility
- Clinical characteristics: BD-I, BD-II, BD-NOS, cyclothymic disorders, comorbid psychiatric conditions
- Contextual characteristics: metropolitan area, county poverty rate, availability of pediatricians, presence of community mental health center

Outcomes

- Guideline-concordant care:
 - 1) Filled prescriptions for mood stabilizers or antipsychotics for at least 60 continuous days
 - 2) Antidepressant monotherapy for at least 60 continuous days
 - 3) Receipt of any psychotherapy within 90 days of new PBD episode
 - 4) Combination of criteria 1 and 3

Data Sources

- Medicaid data

Statistical Analysis

- Generalized linear mixed models

Results

Table 1. Demographic characteristics of Medicaid enrolled youth aged 10-17 with a new episode of PBD, 2017-2018.

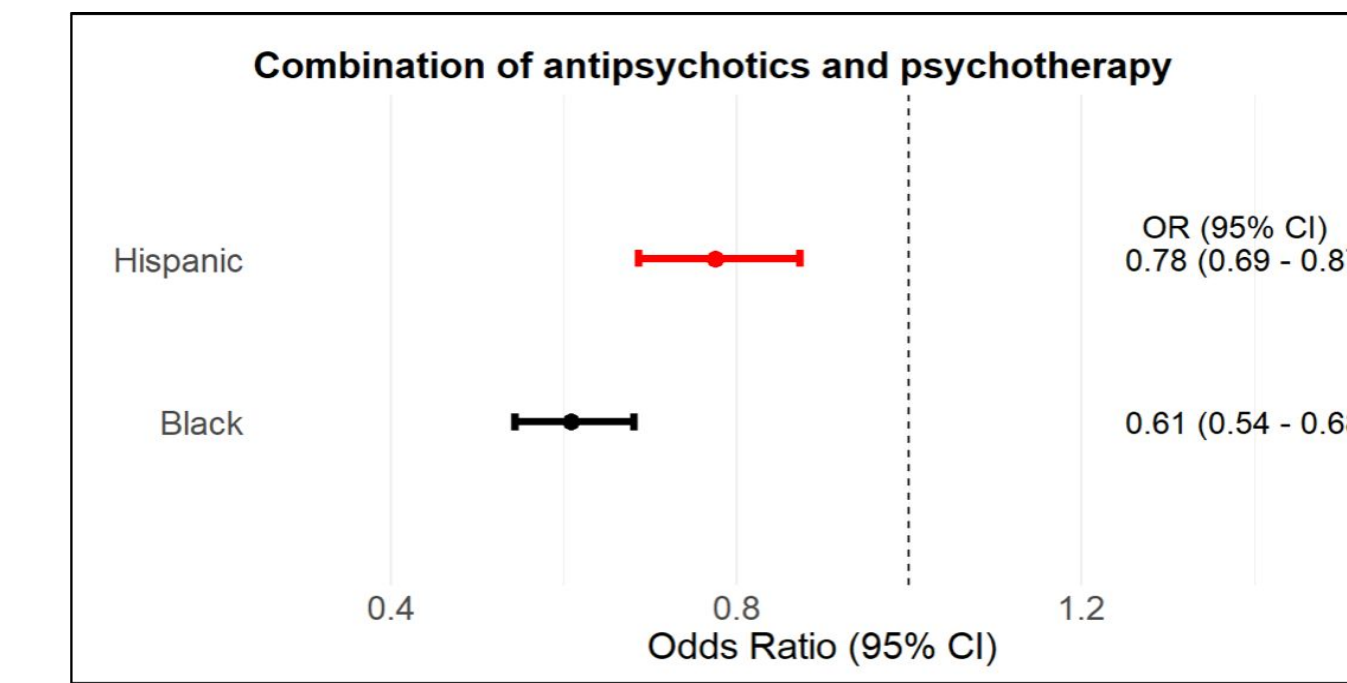
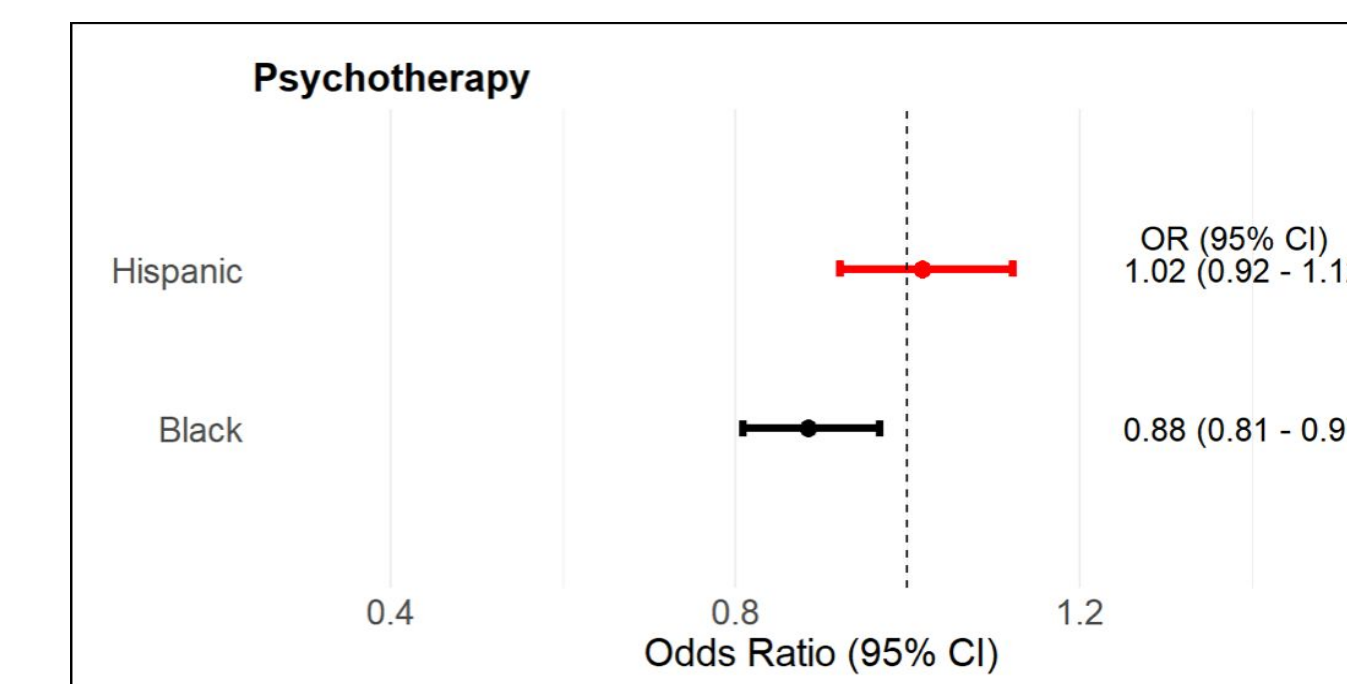
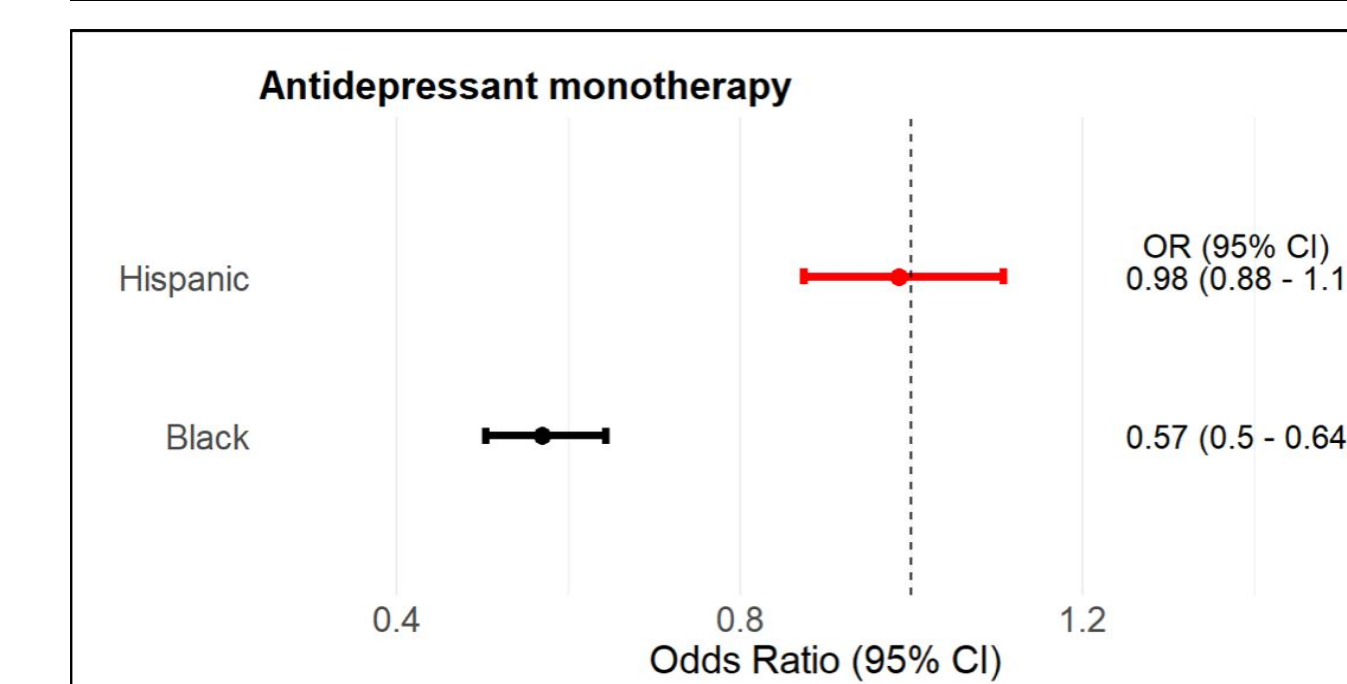
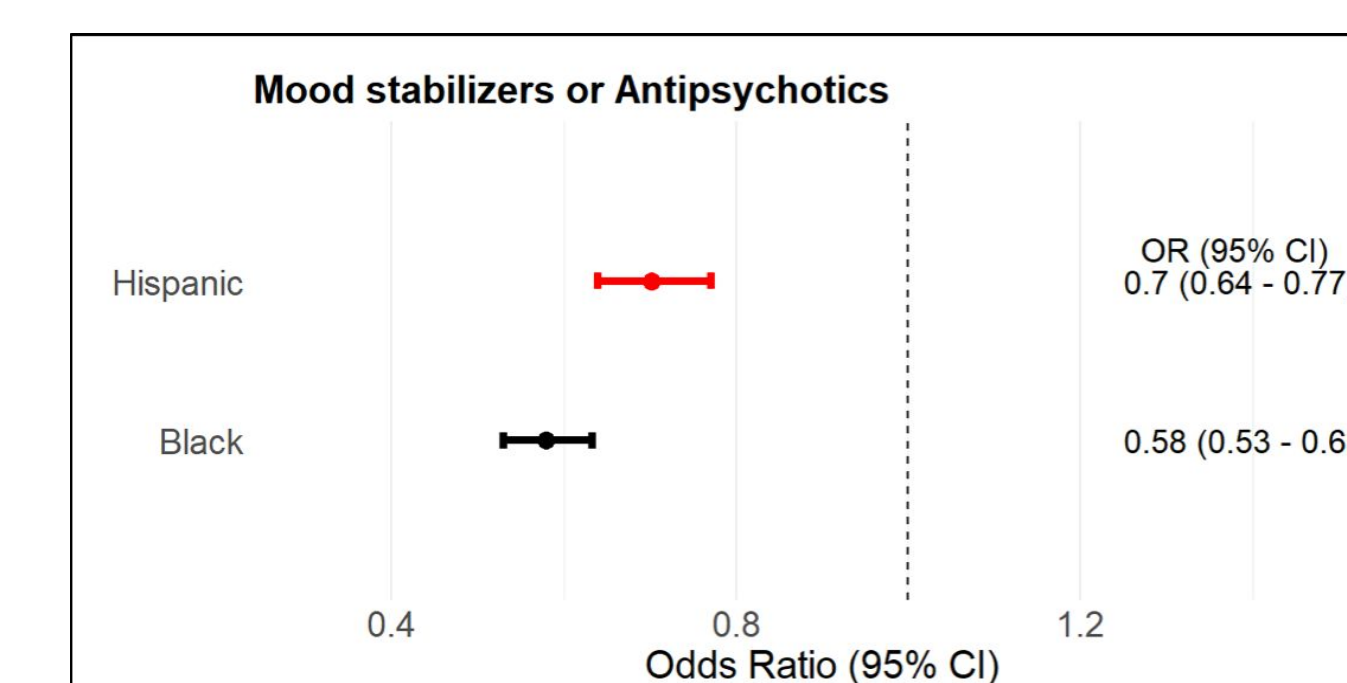
	Total (N=16,807)		Non-Hispanic White (N=9,203)		Non-Hispanic Black (N=4,056)		Hispanic (N=3,548)		P-value
	N	%	N	%	N	%	N	%	
Age									0.04
10-12 years	3158	18.8	1669	18.1	788	19.4	701	19.8	
13-14 years	4539	27.0	2457	26.7	1096	27.0	986	27.8	
15-17 years	9110	54.2	5077	55.2	2172	53.6	1861	52.4	
Sex									<0.01
Female	10169	60.5	5745	62.4	2383	58.8	2041	57.5	
Male	6638	39.5	3458	37.6	1673	41.2	1507	42.5	
Medicaid eligibility									<0.01
Disabled	2059	12.3	785	8.5	736	18.1	538	15.2	
Foster care	1608	9.6	853	9.3	512	12.6	243	6.8	
Poverty	12292	73.1	7170	77.9	2619	64.6	2503	70.5	
Other/unknown ^a	848	5.0	395	4.3	189	4.7	264	7.4	

^aIncludes eligibility groups such as those covered for specific conditions, refugees, and unknown classifications

Table 2. Prescription fill patterns within 365 days of new PBD episode among Medicaid enrolled youth aged 10-17, 2017-2018.

	Total (N=16,807)		Non-Hispanic White (N=9,203)		Non-Hispanic Black (N=4,056)		Hispanic (N=3,548)		P-value
	N	%	N	%	N	%	N	%	
Any psychotropic medication	12840	76.40	7411	80.53	2741	67.58	2688	75.76	<0.001
Any mood stabilizer	4976	29.61	3019	32.80	920	22.68	1037	29.23	<0.001
Mood stabilizer alone	1139	6.78	612	6.65	257	6.34	270	7.61	0.07
Anticonvulsant	4582	27.26	2757	29.96	854	21.06	971	27.37	<0.001
Lithium	675	4.02	468	5.09	95	2.34	112	3.16	<0.001
Any antipsychotic	7454	44.35	4279	46.50	1628	40.14	1547	43.60	<0.001
Antipsychotic alone	2245	13.36	1144	12.43	672	16.57	429	12.09	<0.001
Atypical	7414	44.11	4254	46.22	1617	39.87	1543	43.49	<0.001
Typical	147	0.87	89	0.97	39	0.96	19	0.54	0.05
Any antidepressant	7499	44.62	4590	49.88	1292	31.85	1617	45.57	<0.001
SNRI	589	3.50	452	4.91	52	1.28	85	2.40	<0.001
SSRI	6371	37.91	3836	41.68	1124	27.71	1411	39.77	<0.001
Other ^a	1677	9.98	1104	12.00	243	5.99	330	9.30	<0.001
Any benzodiazepine	513	3.05	352	3.82	71	1.75	90	2.54	<0.001
Any ADHD medication	3694	21.98	2091	22.72	885	21.82	718	20.24	0.01

^aIncludes bupropion and mirtazapine



Figures 1-4. Receipt of guideline-concordant care by race/ethnicity among Medicaid enrolled youth aged 10-17 with a new episode of PBD, 2017-2018. All demographic, clinical, and contextual variables were controlled for in the regression analysis.

Summary of Findings

- Less than half of youth with PBD received treatment meeting clinical guidelines.
 - Roughly 40% of the cohort filled prescriptions for mood stabilizers and/or antipsychotics.
 - Few received antidepressant monotherapy.
 - About half received psychotherapy within 90 days.
- Hispanic and NHB youth were both less likely than NHW youth to receive gold standard, multimodal treatment for PBD with psychotherapy and mood stabilizers or antipsychotics.

Strengths and Limitations

Strengths

- Large, diverse population-based sample
- Multiple guideline-concordant care measures

Limitations

- Generalizability
- Potential diagnostic disparities by race and ethnicity not captured in this study, that further contribute to treatment disparities

Conclusions

1. There are trends of no or inadequate mental health treatment for minorities, with the greatest disparity occurring between NHB and NHW youth.
2. Our findings point to a crucial need to address quality of care for youth with PBD from diverse racial/ethnic backgrounds.
3. Health systems, physicians, and policymakers must address multilevel barriers through a health equity lens in order to ensure all youth have access to high quality treatment.

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