

# Increased Symptoms of Psychosis and Decreased Core Symptoms of Mania and Lifetime Lithium Use in U.S. Bipolar Patients of African vs European Ancestry

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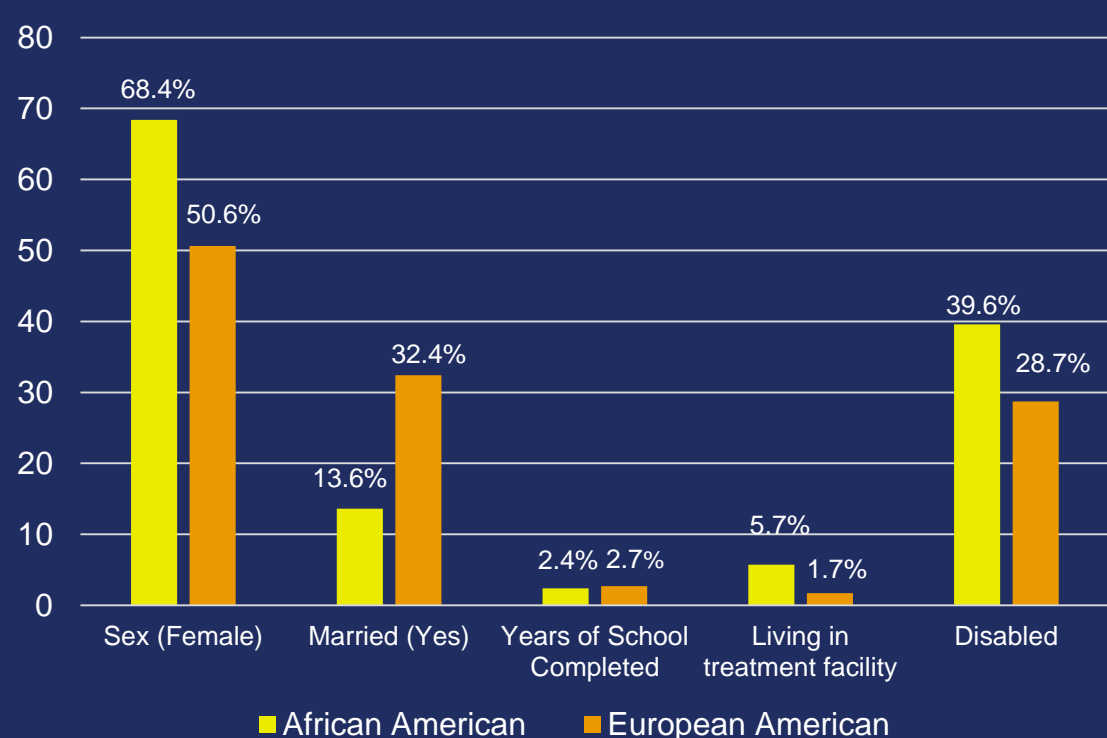
## Introduction

- Misdiagnosis is common in bipolar disorder and disproportionately affects racial/ethnic minorities, particularly African Americans.
- There is interest in better understanding the contribution of differential illness presentation and/or racial bias to misdiagnosis.

## Patients and Methods

- Utilizing the Genetic Association Information Network public database, this study compared clinical phenomenology between bipolar I patients of African vs European ancestry (AA=415 vs EA=480).
- The Diagnostic Interview for Genetic Studies (version 4) was used to evaluate individual symptom endorsement contributing to diagnostic confirmation. Lifetime medication use was compared between groups.

## Figure 1. Demographics



## Results

The symptom of elevated or euphoric mood was significantly less endorsed in AA BP patients than in EA patients. AA BP participants—vs EA BP—had significantly lower percentage of lifetime lithium, mood stabilizing anticonvulsant use, and higher percentage of haloperidol use.

## Conclusion

Differential rate of core manic symptoms and psychotic symptom endorsement from a structured diagnostic interview may represent differential illness presentation that could contribute to misdiagnosis. Incorporation of study methods to eliminate potential racial bias and overall greater participation of BP patients of African ancestry in research is a critical future direction.

**Table 1. Symptoms of Mania and Psychosis During Most Severe Episode of Mania**

	AA		EA		P-value	OR*
	N-answered	N-yes (%)	N-answered	N (%) yes		
<b>SCREENING QUESTIONS FOR CORE MANIA</b>						
Ever period of feeling extremely good/high; diff from normal self	406	384 (94.6)	473	461 (97.5)	0.0272	0.45 (0.22, 0.93)
Ever period of unusual irritability; shout at people	407	371 (91.2)	472	409 (86.7)	0.0353	1.59 (1.03, 2.45)
<b>MANIC SYMPTOMS</b>						
More talkative than usual or feel pressure to keep talking	401	346 (86.3)	466	422 (90.6)	0.05	0.66 (0.43, 0.99)
Thought race or talk so fast that people could not follow	402	356 (88.6)	463	424 (91.6)	0.14	0.77 (0.45, 1.11)
Feel very important or that you had special powers, plans, talents, or abilities	400	302 (75.5)	465	364 (78.3)	0.33	0.85 (0.62, 1.17)
Need sleep less than usual	403	365 (90.6)	465	438 (94.2)	0.04	0.59 (0.35, 0.99)
More trouble concentrating	401	340 (84.8)	464	410 (88.4)	0.12	0.73 (0.50, 1.09)
Do things that could have gotten you in trouble: buy things, make business investments, sexual indiscretions, drive recklessly	403	325 (80.7)	465	397 (85.4)	0.06	0.71 (0.49, 1.02)
Behavior provocative, obnoxious, arrogant, or manipulative enough to cause problems	396	327 (82.6)	461	389 (84.4)	0.48	0.87 (0.61, 1.26)
So excited it was almost impossible to hold conversation with you	392	264 (67.4)	455	327 (71.9)	0.15	0.81 (0.60, 1.08)
<b>SUM♦</b>	<b>406</b>	<b>7.4 (1.6)</b>	<b>470</b>	<b>7.7 (1.4)</b>	<b>0.006</b>	<b>0.88 (0.81, 0.97)</b>
<b>PSYCHOSIS SYMPTOMS</b>						
Had beliefs/ideas you later found were not true	394	206 (52.3)	454	213 (46.9)	0.12	1.24 (0.95, 1.6)
See or hear things that other people could not	390	114 (29.3)	448	98 (21.9)	0.01	1.5 (1.1, 2.01)
If voices, originate from within your head	99	57 (57.6)	72	33 (45.8)	0.13	1.6 (0.87, 2.9)
If voices, originate from outside your head	96	38 (39.6)	66	33 (50.0)	0.19	0.66 (0.35, 1.23)
If voices, originate from particular place outside your head	90	17 (18.9)	63	13 (20.6)	0.79	0.89 (0.39, 2.01)
Voices definitely different from your own thoughts	95	74 (77.9)	66	56 (84.9)	0.27	0.63 (0.27, 1.44)
<b>SUM♦</b>	<b>402</b>	<b>1.3 (1.5)</b>	<b>465</b>	<b>1.0 (1.3)</b>	<b>0.002</b>	<b>1.16 (1.05, 1.27)</b>

**Table 2. Lifetime Medication Use**

	AA		EA		P-value	OR*
	N-answered	N-yes (%)	N-answered	N (%) yes		
<b>Lithium</b>	<b>415</b>	<b>218 (52.5)</b>	<b>480</b>	<b>356 (74.2)</b>	<b>&lt;0.0001</b>	<b>0.39 (0.29, 0.51)</b>
<b>MOOD STABILIZING ANTICONVULSANTS (MSA)</b>						
Lamotrigine	415	57 (13.7)	480	171 (35.6)	<0.0001	0.29 (0.21, 0.4)
Carbamazepine	415	77 (18.6)	480	112 (23.3)	0.08	0.75 (0.54, 1.0)
Depakote	415	256 (61.7)	480	317 (66)	0.18	0.83 (0.63, 1.1)
<b>Any MSA</b>	<b>415</b>	<b>288 (69.4)</b>	<b>480</b>	<b>383 (79.8)</b>	<b>0.0003</b>	<b>0.57 (0.42, 0.78)</b>
<b>ATYPICAL ANTIPSYCHOTICS</b>						
Clozapine	415	13 (3.1)	480	26 (5.4)	0.10	0.56 (0.29, 1.1)
Ziprasidone	415	79 (19.0)	480	100 (20.8)	0.50	0.89 (0.64, 1.24)
Risperidone	415	216 (52.1)	480	214 (44.6)	0.03	1.35 (1.04, 1.76)
Quetiapine	415	189 (45.5)	480	199 (41.5)	0.22	1.2 (0.91, 1.54)
Olanzapine	415	179 (43)	480	200 (41.7)	0.66	1.1 (0.8, 1.4)
<b>Any Atypical Antipsychotic</b>	<b>415</b>	<b>326 (78.6)</b>	<b>480</b>	<b>350 (72.9)</b>	<b>0.05</b>	<b>0.74 (0.54, 1.00)</b>
<b>TYPICAL ANTIPSYCHOTICS</b>						
<b>Haloperidol</b>	<b>415</b>	<b>153 (36.9)</b>	<b>480</b>	<b>141 (29.4)</b>	<b>0.02</b>	<b>1.4 (1.1, 1.9)</b>
Loxapine	415	6 (1.5)	321	12 (3.7)	0.05	0.38 (0.14, 1.0)
Molindone	415	5 (1.2)	322	6 (1.9)	0.46	0.64 (0.19, 2.12)
Thiothixene	415	24 (5.8)	480	51 (10.6)	0.01	0.52 (0.31, 0.85)
Fluphenazine	415	51 (12.3)	480	32 (6.7)	0.004	1.96 (1.23, 3.1)
Trifluoperazine	415	27 (6.51)	480	39 (8.13)	0.36	0.79 (0.47, 1.3)

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