# Predictors of Bipolar Disorder Risk Among Patients Currently Treated for Major Depression

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### **ABSTRACT**

#### Objective

This study sought to identify predictors of bipolar disorder (BPD) risk among patients treated for Major Depressive Disorder (MDD).

#### Method

Psychiatrists from community and private practice clinic settings randomly selected patients who demonstrated one or more antidepressant (AD) medication failures during the current episode of MDD. Patients with BPD, OCD, or schizophrenia were excluded. Patient history and AD use were obtained via record abstraction. Patients self-reported their demographics, family history, co-morbid health status, alcohol/drug use, legal problems, and current depression symptoms via Centers for Epidemiologic Studies - Depression (CES-D) scale. BPD screening was self-reported via the Mood Disorder Questionnaire (MDQ).

#### Results

For n=602 patients, the base MDQ positive rate was 18.6%. Stepwise logistic regression identified five variables associated with bipolar disorder risk (MDQ+): The CESD item "people were unfriendly" (OR=2.59, p<.001), comorbid anxiety (OR=2.98, p<.002), depression diagnosis within five years (OR=2.47, p<.001), family history of BPD (OR=2.01, p<.010), and legal problems (OR=1.74, p<.026). For patients with no risk factors (n=41) 2.4% were MDQ+. For patients endorsing "people were unfriendly" (n=103), 31.1% were MDQ+; adding co-morbid anxiety (n=82) increased MDQ+ rate to 35.4%; adding recent depression onset (n=17) increased MDQ+ rate to 41.2%; adding family history (n=4) increased MDQ+ rate to 75%; 100% of those endorsing all 5 factors (n=3) were MDQ+. For patients endorsing any three or more risk factors (n=109) 41.3% were MDQ+.

#### **Conclusions**

Over one-third of patients who experienced projection or rejection sensitivity via endorsement of the CESD item "people were unfriendly" as well as comorbid anxiety, were at risk for BPD (MDQ+). These two clinical features along with recent depression onset, BPD family history and legal problems may prove useful indicators of BPD risk among patients with difficult to treat depression.



## INTRODUCTION

The past several decades have seen enormous progress in the recognition, diagnosis, and therapeutic management of major depression, especially with the introduction of new classes of antidepressants and novel approaches to management. However, at least 30% of patients with depression fail to respond fully to adequate antidepressant therapy, 1 and remission rates in controlled clinical trials remain below 50%. 2-3 Recent research suggests that a substantial subset of patients diagnosed with unipolar major depression who do not show an adequate response to antidepressants in fact suffer from bipolar disorder. 4

Patients suffering from BPD are often unrecognized and incorrectly treated for years with significant adverse personal, social, and work-related consequences. The study sought to identify predictors of BPD risk among MDD patients. It was hypothesized that a proportion of patients currently receiving antidepressant treatment actually suffer from BPD, and thus were incorrectly diagnosed and treated. As a result, this study was designed to identify predictors of bipolar disorder risk among MDD patients currently in treatment.



#### Selection of Subjects

- Psychiatrists from private practice and clinic settings (N=63) were asked to identify their next 10 patients with major depression who had experienced one or more prior medication failure (defined as a change in their AD medication or regimen).
- Patient eligibility criteria:
  - Aged 18+, currently in treatment for major depression
- Not diagnosed with BPD, OCD, schizophrenia or schizoaffective disorder
- They had received treatment for major depression for at least three months and had one or more medication changes during their current episode or
- If treated less than three months, they had changed medications at least three times.

#### **Instruments**

- Patient survey: Demographic and family history form; the Center for Epidemiologic Studies Depression Scale (CES-D); a health care resource use form; the Mood Disorder Questionnaire (MDQ); a co-morbid health problems form; and legal problems were assessed with the legal status section of the Addiction Severity Index (ASI)
- A medical records abstraction form: Patient and family health history; lifetime
  history of major depression; current episode of major depression; prescription
  drug treatment history; number of prior antidepressant medication failures; health
  care resource use; and outcomes of treatment

#### **Analysis**

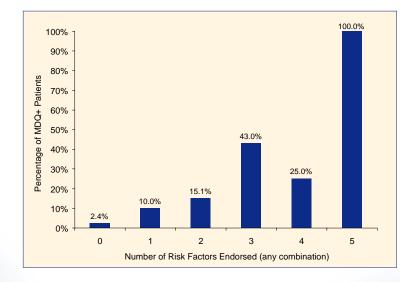
Potential predictors of MDQ status were first assessed via univariate analyses.
 Significant predictors used in step-wise logistic regression included: co-morbid
 anxiety (including panic attacks), family history of BPD, family history of mania or
 manic depression, family history of allergies, legal problems, recent depression
 diagnosis (within five years), and the following five CES-D items, treated as
 dichotomous variables: "I thought my life had been a failure", "My sleep was
 restless", "People were unfriendly", "I had crying spells", and "I felt that people
 disliked me".



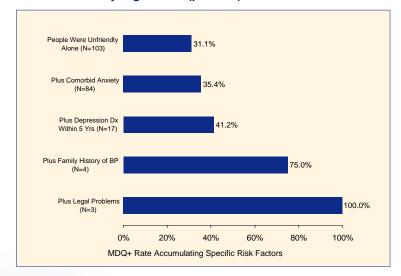
### **RESULTS**

Patient Demographics	N	%
Total	602	100%
Gender		
Females	462	76.74
<b>Age</b> (Mean = 47.9, Median = 48.0)		
18-24	22	3.67
25-44	212	35.33
45-64	316	52.67
65+	50	8.33
Ethnic Background		
African American	51	8.5
Caucasian	512	86.39
Other	31	5.1
Of Spanish or Hispanic heritage	20	3.40
Income		
<\$20,000	254	43.2
\$20,000 to \$39,999	130	22.11
\$40,000 to \$59,999	104	17.69
\$60,000 to \$79,999	46	7.82
\$80,000 to \$99,999	16	2.72
\$100,000 to \$119,999	11	1.87
\$120,000+	27	4.59
MD Practice Characteristics		
Private Practice	409	68.01
Community Mental Health Clinic	116	19.19
Hospital	51	8.55
Research Center	22	3.58
Other	4	0.69

## Association Between Number of Risk Factors and Being Positive on the MDQ



## Percent of MDQ Positive Patients (MDQ+) Endorsing Statistically Significant (p < 0.05) Predictor Variables





## **DISCUSSION**

- Among this sample of depression patients with one or more prior antidepressant medication failures:
  - More than 60% were severely depressed (based on CES-D score of 22 or higher) at the time of the study.
  - They were taking an average of three antidepressant medications for their current episode of depression.
  - One in five screened positive for BPD on the MDQ.
- Five significant predictors of BPD risk were idenified via logistic regression
  - CES-D item "people were unfriendly"
  - Co-morbid anxiety
  - Recent (within past five years) depression diagnosis
  - Family history of BPD
  - Past legal problems
- Over one-third of patients who endorsed the item "people were unfriendly" on the CES-D scale and reported comorbid anxiety screened positive for bipolar disorder
- 100% (n=5) of the patients who endorsed all five of the predictor variables screened positive for BPD on the MDQ.
- The finding that co-morbid anxiety predicts BPD risk is also consistent with recent findings suggesting that more than 50% of bipolar patients experience at least one co-morbid anxiety disorder.



## CONCLUSION

- Just over one in three patients who experienced projection or rejection sensitivity via endorsement of the CESD item "people were unfriendly" as well as co-morbid anxiety, were at risk for BPD (MDQ+).
- Endorsement of "people were unfriendly" was hypothesized to be a reflection of projection or rejection anxiety.
- These two clinical features plus recent depression onset, BPD family history and legal problems may prove to be useful indicators of BPD risk among patients with difficult to treat depression.



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