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## **Sex differences in the risk of rapid cycling and other indicators of adverse illness course in patients with bipolar I and II disorder.**

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### **OBJECTIVES:**

To examine the independent effects of sex on the risk of rapid cycling and other indicators of adverse illness course in patients with bipolar I disorder (BP-I) or bipolar II disorder (BP-II).

### **METHODS:**

We analyzed data from the first 1,225 patients enrolled in the Mayo Clinic Individualized Medicine Biobank for Bipolar Disorder. Demographic and clinical variables were ascertained using standardized questionnaires; height and weight were assessed to determine body mass index (BMI). Rates of rapid cycling, cycle acceleration, and increased severity of mood episodes over time were compared between women and men overall and within subgroups defined by bipolar disorder subtype (BP-I or BP-II). Multiple logistic regression analysis was used to assess the independent effect of sex on the risk of these indicators of adverse illness course.

### **RESULTS:**

Women had significantly higher rates of rapid cycling than men. Overall rates of rapid cycling were higher in patients with BP-II than BP-I; and sex differences in the rate of rapid cycling were more pronounced in patients with BP-II than BP-I, although the power to detect statistically significant differences was reduced due to the lower sample size of subjects with BP-II. Female sex was a significant predictor of rapid cycling, cycle acceleration, and increased severity of mood episodes over time after adjusting for age, bipolar disorder subtype, BMI, having any comorbid psychiatric disorder, and current antidepressant use.

### **CONCLUSIONS:**

Female sex was associated with significantly higher risk of rapid cycling, cycle acceleration, and increased severity of mood episodes over time in a sample of 1,225 patients with bipolar disorders.