

# Bipolar Disorders: Subtypes, treatments, and health inequalities

## Akademisk avhandling

Som för avläggande av medicine doktorsexamen vid Sahlgrenska akademien, Göteborgs universitet kommer att offentligen försvaras i Arvid Carlsson Academicum, Medicinaregatan 3, fredagen den 13 mars 2020, klockan 13.00

av Alina Aikaterini Karanti

## Fakultetsopponent:

Professor Lisa Ekselius  
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## Avhandlingen baseras på följande delarbeten:

- I. Karanti, A., Kardell, M., Joas, E., Runeson, B., Pålsson, E., Landén, M. Characteristics of bipolar I and II disorder: a study of 8,766 individuals. *Bipolar Disorders*, 2019 November 14.
- II. Karanti, A., Kardell, M., Lundberg, U., Landén, M. Changes in mood stabilizer prescription patterns. *Journal of Affective Disorders*, 2016 May; 195: 50-6.
- III. Joas, E., Bäckman, K., Karanti, A., Sparding, T., Colom, F., Pålsson, E., Landén, M. Psychoeducation for bipolar disorder and risk of recurrence and hospitalization – a within-individual analysis using registry data. *Psychological Medicine*, 2019 May 6:1-7.
- IV. Karanti, A., Bobeck, C., Osterman, M., Kardell, M., Tidemalm, D., Runeson, B., Lichtenstein, P., Pålsson, E., Landén M. Gender differences in the treatment of patients with bipolar disorder: a study of 7,354 patients. *Journal of Affective Disorders*, 2015 Mar 15; 174: 303-9.
- V. Karanti, A., Bublik, L., Kardell, M., Annerbrink, K., Runeson, B., Lichtenstein, P., Pålsson, E., Landén M. Patients' educational level and management of bipolar disorder. (*submitted*)

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# Bipolar Disorders: Subtypes, treatments, and health inequalities

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## Abstract

This thesis comprises five studies based on prospective, longitudinal data from the Swedish national quality register Bipolär. *Study I* examined the differences between bipolar subtype I and II with respect to clinical features, course of illness, comorbidity, and socioeconomic factors. *Study II* investigated temporal changes in drug prescription patterns in bipolar disorder. *Study III* examined the effectiveness of psychoeducation for bipolar disorder. *Study IV and V* examined health inequalities in the management of bipolar disorder with respect to sex and patients' educational level, respectively.

Results showed noticeable phenomenological differences between the BDI and BDII, where BDII has a different and more complex clinical presentation in terms of illness course and comorbidity (*Study I*). This supports the validity of separating BDI and BDII. Concerning pharmacological treatment, we found that lithium use decreased during the study period, while lamotrigine and quetiapine increased. The use of antidepressants remained unchanged in BDII but increased somewhat in BDI (*Study II*). We found that psychoeducation decreased the risk for depressive and manic episodes as well as inpatient care in routine clinical practice (*Study III*). Lastly, we found differences in the management of bipolar disorder without apparent medical rationale. Whereas women were more likely to receive psychotherapy, antidepressants, benzodiazepines, antipsychotics, lamotrigine, and electroconvulsive therapy, men were more likely to use lithium (*Study IV*). Further, higher education in patients increased the likelihood of receiving psychotherapy and psychoeducation, but decreased likelihood of receiving first-generation antipsychotics, tricyclic antidepressants, and compulsory inpatient care (*Study V*).

**Keywords:** Bipolar disorders, drug therapy, lithium, lamotrigine, quetiapine, mood stabilizers, antidepressants, electroconvulsive therapy, psychotherapy, psychoeducation, comorbidity, socioeconomic factors, healthcare disparity, gender, education