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Cardiometabolic risk indicators in bipolar disorders

Akademisk avhandling

Som för avläggande av medicine doktorsexamen vid Sahlgrenska akademin, Göteborgs universitet kommer att offentligen försvaras i hörsal Arvid Carlsson Academicum, Medicinaregatan 3, fredagen den 9:e juni 2023, klockan 09.00.

av Hemen Najar

Fakultetsopponent:
Johan Reutfors, Associate Professor, M.D.
Karolinska Institutet, Sweden

Avhandlingen baseras på följande delarbeten

I. Najar, H., Joas, E., Kardell, M., Pålsson, E., & Landén, M. (2017). Weight gain with add-on second-generation antipsychotics in bipolar disorder: a naturalistic study. Acta psychiatrica Scandinavica, 135(6), 606–611. https://doi.org/10.1111/acps.12737

II. Najar, H., Joas, E., Pålsson, E., & Landén, M. (2022). Time effect on cardiometabolic risk indicators in patients with bipolar disorder: a longitudinal case-control study. European archives of psychiatry and clinical neuroscience, 10.1007/s00406-022-01520-7. Advance online publication. https://doi.org/10.1007/s00406-022-01520-7

III. Najar, H., Karanti, A., Pålsson, E., & Landén, M. (2023). Cardiometabolic risk indicators in individuals with bipolar disorders: a replication study. Diabetology & metabolic syndrome, 15(1), 69. https://doi.org/10.1186/s13098-023-01044-7

IV. Najar, H., Joas, E., Jonsson, V., Pålsson, E., & Landén, M. Recent secular trends of body mass index in bipolar disorder and the general population (submitted).

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Hemen Najar

Department of Psychiatry and Neurochemistry, Institute of Neuroscience and Physiology, Sahlgrenska Academy, University of Gothenburg, Sweden, 2023.

Abstract

In addition to disabling mood episodes, bipolar disorders (BDs) predispose individuals to high cardiovascular disease (CVD) risk. This thesis explores the association between BDs and the metabolic risk indicators body mass index (BMI), waist-to-hip ratio (WHR), blood pressure, and lipid profile.

Study I showed no differences in weight gain or increase in BMI between individuals with BDs on mood stabilizer monotherapy compared with age- and sex-matched individuals with BDs who received treatment with a second-generation antipsychotic in addition to a mood stabilizer. **Study II** showed that individuals with BDs had higher mean levels of WHR, BMI, and atherogenic lipid profile compared with a control group. A sub-group of individuals with BDs and controls were followed-up after a period of 6–7 years. We found an increase in WHR and blood pressure in the patient group relative to the controls after the follow-up period. **Study III** partly replicated the findings of Study II using an independent cohort with a nearly identical study protocol and a follow-up of 7–8 years. **Study IV** compared the secular trends and the distribution of BMI between individuals with BDs and the general population in Sweden. The mean levels of BMI were higher in the patient group and increased more over time compared with the general population. Women with BDs and individuals with high BMI had the largest annual increase in BMI.

In conclusion, individuals with BDs have a higher CVD risk-profile as measured by cardiometabolic risk indicators. It is important that clinicians adopt a proactive strategy, look at the overall picture, and observe minor changes in cardiometabolic status to prevent cardiometabolic disease generally and in individuals with BDs specifically.

Keywords: Bipolar disorders, cardiovascular diseases, cardiometabolic risk indicators.

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