

The association between gastrointestinal symptoms and affectivity in patients with bipolar disorder

Karling P *et al.* GI symptoms and Bipolar disorder

Pontus Karling, Martin Maripuu, Mikael Wikgren, Rolf Adolfsson, Karl-Fredrik Norrback.


Biostatistical statement

All analyses were carried out using IBM SPSS Statistics version 23. Non-parametric tests were used for comparing ordinal scales and continuous variables (Mann-Whitney test) and for correlations (Spearman's test). Chi² test was used for crosstabs analyses, and Fisher's exact test used if the number of cases was below 10. Student-t test was used for parametric comparison. A two-sided p-value less than 0.05 was regarded significant. Means and standard deviations were used for continuous variables and medians and inter quartile range (IQR) used for ordinal variables. No correction for multiple testing was applied. A logistic regression (SPSS/analyse/regression/binary logistic) was used for adjusting for possible confounders to the dependent variable GSRS-IBS score (dichotomous variable divided by median score). In the regression model age and body mass index were regarded as continuous variables. HADS-D was categorized into two groups according to the accepted "cut-off" at ≥ 8 points, HADS-A was categorized into two groups according to the accepted "cut-off" at ≥ 9 points^[18, 19], PSQ index was categorized into two groups according the estimated moderate level of perceived stress (PSQ index > 0.34)^[21], and the number of drugs was categorized into two groups by the median value. Each single drug used by more than ten patients with bipolar disorder was separately analysed with age, body mass index, sex HADS-A and HADS-D.

Power calculations

Patients with bipolar disorder versus controls

17% of the control subjects had consulted primary care for functional Gastrointestinal disorder. The sample size of our study was powered to detect a difference between the groups of 15%.



Pontus Karling

Department of Public Health and Clinical Medicine/Medicine, Umeå University, Umeå, Sweden.