

**Conclusions** High levels of anxiety symptoms may influence various underlying pathophysiological factors and modulate the inflammatory response and course of illness, affecting treatment planning.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.1465>

#### EV481

### The effectiveness of various potential predictors of response to treatment with SSRIs in patients with depressive disorder

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**Introduction** The substantial non-response rate in depressive patients indicates a need to identify predictors of treatment outcome.

**Objective and aims** The aim of the open-label, 6-week study was: – to compare efficacy of a priori defined predictors:  $\geq 20\%$  reduction in MADRS score at week 1,  $\geq 20\%$  reduction in MADRS score at week 2 (RM  $\geq 20\%$  W2), decrease of prefrontal theta cordance value (RC) and increase of serum/plasma brain-derived neurotrophic factor (BDNF) at week 1;

– to assess whether the combination of these factors yield more robust predictive power than when used singly.

**Methods** All patients ( $n = 38$ ) were hospitalized and treated with various SSRIs. Areas under curve (AUC) as well as predictive values were calculated to compare predictive effect of single and combined predictor model.

**Results** Twenty-one patients (55%) achieved response. The RM  $\geq 20\%$  W2 (AUC-0.83) showed better predictive efficacy compared to all other predictors with exception of RC. Other significant differences were not detected. The identified (logistic regression) combined predictive model (RM  $\geq 20\%$  W2 + RC) predicted response with accuracy of 82% (AUC-0.92) and was significantly better than other predictors but not RM  $\geq 20\%$  W2 and RC.

**Conclusions** Our findings indicate that the RM  $\geq 20\%$  W2 alone and in combination with RC may be useful in the prediction of response to SSRIs. Serum/plasma BDNF did not show strong predictive potential.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

**Acknowledgements** This study was supported by the grants of MZ CR No. AZV 15-29900A, MH CZ - DRO (NIMH-CZ, 00023752) and projects National Institute of Mental Health (NIMH-CZ) number ED2.1.00/03.0078 and the European Regional Development Fund.

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.1466>

#### EV482

### Seasonal affective disorder associate with common chronic diseases and symptoms in a population-based study

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**Background** Seasonal affective disorder (SAD) is a recurrent mood disorder with 22%–42% of the patients experiencing symptoms even after 5–11 years after diagnosis, and 33%–44% developing non-seasonal symptoms. The purpose of this study was to assess how seasonality is associated with some of the most common non-communicable diseases in the general Finnish population.

**Methods** The global seasonality score (GSS) and the experiences of problems due to the seasonal variations from FINNRISK 2012 dataset were used to measure the seasonality in 4689 Finns aged 25–74 years living in five geographical regions in Finland, and assess their association with common non-communicable diseases (NCDs). The regression models and odds ratios were adopted to analyze the associations adjusted for covariates.

**Results** The prevalence of SAD in the Finnish general population is 21%. Seventy percent of the participants had seasonal variations in sleep duration, social activity, mood and energy level, while 40% had seasonal variations in weight and appetite. Angina pectoris and depression were significantly associated with seasonality, including seasonal variations in sleep duration, mood, weight, appetite, social activity and energy level. Depression was significantly associated with the increased odds for experiencing a problem due to the seasonal variations (OR = 4.851,  $P < 0.0001$ ) and SAD symptoms (OR = 4.075,  $P < 0.0001$ ), and with the GSS ( $P < 0.0001$ ).

**Conclusion** Our data suggest that seasonality is associated with depression and angina pectoris. The co-occurrence of the seasonal variations in mood and behavior with common NCDs warrants the need for future research to have insights into the etiology and potentially shared pathways and mechanisms of action.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.1467>

#### EV483

### The presence of chronic pain in patients with major depressive disorder and its inter-correlation

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**Introduction** Chronic pain is a common experienced symptom among patients diagnosed with major depressive disorder (MDD). The intensity of depression and chronic pain inter-correlated, having negative impact on the daily functioning of the patients.

**Objectives** Our aim was to explore the presence of chronic pain in patients diagnosed with MDD (single episode or recurrent), correlation between intensity of depression and chronic pain, its interference on daily functioning, as well as sex differences regarding the explored variables.

**Methods** The study sample consisted of 51 (62.2%) female and 31 (37.8%) male patients diagnosed with MDD ( $n = 82$ ), aged between 18 and 65 years old (mean age of 46.21). Assessment instruments included The Beck Depression Inventory-II (BDI-II), The Brief Pain Inventory-Short Form (BPI) (consisting of BPI-I factor of pain intensity, and BPI-II-factor of pain interference with daily functioning), and semistructured questionnaire for sociodemographic characteristics.

**Results** The presence of chronic pain was found in the 51 (62, 2%) of patients with MDD. The mean score on the BDI-II for the whole sample was 22.5 (SD 12.8). There was a positive correlation between intensity of depression (BDI-II) and intensity of chronic pain (BPI-1), and its interference on the level of daily functioning (BPI-2) ( $P < 0.01$ ). Women diagnosed with MDD experienced