

uptake rate ( $V_{max}$ , pmol/min/ $10^9$ platelets) amongst BMI groups was not statistically significant, but  $V_{max}$  negatively correlated with leptin and uptake affinity values ( $p < .05$ ). Besides, [ $^3$ H]-Par affinity values positively correlated with glycaemia and triglycerides, while [ $^3$ H]-5-HT reuptake affinity with glycaemia only ( $p < .05$ ). Finally, these correlations were specific of obese subjects, while, from multivariate linear-regression analysis conducted on all subjects, insulin ( $p = .006$ ) resulting negatively related to  $B_{max}$  independently from BMI.

**Conclusions:** The present findings would suggest the presence of a dysfunctional insulin/5-HT/leptin axis in obesity, differentially impinging the density, function and/or affinity of the platelet SERT, as the result of complex appetite/reward-related interactions between the brain, gut, pancreatic islets and adipose tissue. In addition, they support the foremost cooperation of insulin and 5-HT in maintaining energy homeostasis.

**Disclosure of Interest:** None Declared

## EPP0610

### The association between eating disorders and mental health among workers

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doi: 10.1192/j.eurpsy.2023.909

**Introduction:** Eating disorders are serious medical conditions labelled by severe disturbances to one's eating behaviours. These disorders can affect employees' physical and mental health.

**Objectives:** This study aimed to evaluate the association between eating disorders and workers' mental health.

**Methods:** The study was conducted among a group of workers from an electricity society. Data were gathered between January-June 2022 using a self-administered questionnaire including socio-professional characteristics, eating disorders evaluation, and mental health assessment using the Hospital anxiety and depression scale (HADS).

**Results:** Our study included 92 workers. Their mean age was  $43.8 \pm 11.7$  years and 73 were male (79.3%). The average job tenure was  $17.6 \pm 11.2$  years. Thirty-eight participants (41.3%) had eating disorders. With the reference to HADS, 47 (51.1%) and 16 (17.4%) participants presented symptoms of anxiety and depression, respectively. Regarding the patients' anxiety levels, it was found that 82.6%, 12%, and 5.4% appeared to have mild, moderate, and severe anxiety, respectively. As for the depression levels of patients, 45 were mildly depressed (48.9%), 31 were moderately depressed (33.7%), and 16 were severely depressed (17.4%). Participants with eating disorders had higher scores of anxiety and depression  $p = 0.001$  and  $p = 0.003$  respectively.

**Conclusions:** According to our study, eating disorders had a significant association with the mental health of workers. Therefore, it is important to provide training for workers to have a healthy balanced diet to guarantee good mental health.

**Disclosure of Interest:** None Declared

## EPP0611

### Transcriptome profiling in depression with and without loss of appetite

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doi: 10.1192/j.eurpsy.2023.910

**Introduction:** Depression has been described very comprehensively and is a highly prevalent mental condition. However, how its features develop and clinical course shape remains not fully understood.

**Objectives:** The study aimed to compare mRNA characteristics between specific symptoms and identification of differently expressed genes (DEGs) in patients with depression with specifiers such as loss of appetite, loss of weight, sleep disturbances and psychomotor retardation.

**Methods:** Material and method we used was transcriptome profiling of peripheral blood mononuclear cells in 30 patients diagnosed with depressive episode in course bipolar or unipolar affective disorder. The blood samples were drawn during acute depressive episode with at least moderate severity. The diagnosis and specific symptoms were described according to ICD-10 and DSM5 criteria using SCID-I, OPCRIT, and HDRS. Agilent microarrays were used for transcriptome profiling and GeneSpring software was applied. Minimal fold change 2 and significant p-value  $< 0.05$  were assumed. DAVID and KEGG databases were searched.

**Results:** Comparing depressed patients with and without decreased appetite or weight loss revealed 718 DEGs. When compared depressed patients with and without psychomotor retardation, 95 genes were up- or down regulated. In both comparisons DEGs were not identified as significant according to DAVID and KEGG database. When considering weight loss of more than 2 kg per month, 418 DEGs were identified. According to searched databases only one, characterized with phosphoserine phosphatase activity, was indicated as having a significant role in molecular functioning. The most numerous list of DEGs ( $n = 855$ ) was found when compared depressed patients with and without insomnia. Among these genes, several were indicated as significant for biological processes and cellular components: those linked with response to oxygen-compound, cytoplasmic and secretory vesicles and granules and circulatory system.

**Conclusions:** Numerous genes are differently expressed in depression with specific clinical features, such as appetite and sleeping disturbances, but their role in pathology remains unclear. One might expect that secretory and circulation activity is involved.

This research was funded by the National Science Center, Poland (Grant No: 2016/23/B/NZ5/02634) and supported by the Poznan University of Medical Sciences in Poland (Statute sources: 502-20-22196440).

**Disclosure of Interest:** None Declared