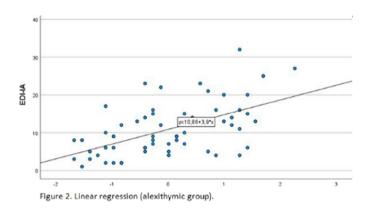
Image 2:



**Conclusions:** In patients with NES, alexithymia significantly predicts poor interoceptive awareness, thus explaining excessive nocturnal food intake.

Disclosure of Interest: None Declared

### **EPP0608**

## Mirror exposure therapies: Effect of the distance to the mirror on the attentional pattern in a Virtual Reality immersive environment

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Introduction: Mirror exposure therapies (MET) have been proposed to reduce symptomatology in patients with Anorexia Nervosa. However, most MET protocols or related studies do not specify the patients' distance to the mirror, or when they do so, such a distance may differ significantly (from 0,5 to 3 meters). Such modifications of mirror positioning could imply variations in patients' fixation patterns on different body parts (i.e., attentional bias between weight-related and non-weight related body parts), since previous studies shown that dissociated neural systems (either in left or right cerebral hemispheres) are involved in the attentional patterns and scanning strategies depending on the distance (i.e., in near and far space). Furthermore, as the body-related attentional bias (AB) has been shown to be a part of the maintenance mechanism of AN symptomatology, any modification of attentional patterns due to mirror's distance variations may influence the efficacy of MET.

**Objectives:** This study aims to use Virtual Reality (VR) and Eye-Tracking (ET) technologies to precisely analyse the effect of the distance to the mirror on the attentional patterns. **Methods:** 137 female college students were immersed in a VR environment in which they could look in the mirror at their respective avatars created from the measurements and photos of their real bodies. The mirror was positioned at 3.30m in front of the participants in "group 1" ( $n_1 = 54$ ), and at 1.54m in front of the participants in "group 2" ( $n_2 = 83$ ). Eye-Tracking feature and OGAMA software (Freie Universität, Berlin, Germany) were used to record and process the visual attentional pattern of each participant, during a 30-second free viewing task at her avatar. Complete Fixation Time (CFT) was assessed as the fixation time difference between weight- and non-weight- related body parts, defined from the weight scale of the PASTAS questionnaire. Independent Sample t-Test was conducted to analyse CFT mean difference between both groups.

**Results:** Independent Samples t-Test shows statistically significant CFT mean difference (F (1, 135) = 1.571, p < 0.001, 95% IC [1717; 5581]) between both groups. While fixation pattern of the group positioned further to the mirror (group 1) was more focused on weight-related body parts (CFT mean = 2282ms, SD = 809), the fixation pattern of the group positioned closer to the mirror (group 2) was more focused on non-weight-related body parts (CFT mean = -1367ms, SD = 587).

**Conclusions:** This study shows new opportunities to use VR and ET technologies to precisely analyse the variations of fixation patterns as a function of mirror position in MET. Such information may contribute to adapt and develop new MET's protocols for AN patients, optimizing the distance to the mirror. It also underscores the importance of specifying the distance to the mirror in MET-related studies to improve replicability.

Disclosure of Interest: None Declared

### **EPP0609**

# Serotonin, insulin, leptin and glycolipid metabolic factor's relationship in obesity

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**Introduction:** Obesity, defined by an excessive body fat accumulation, is a non-communicable condition attaining epidemic proportions in economically developed countries.

**Objectives:** To provide evidence to the link between serotonin (5-HT), energy metabolism and the human obese phenotype, the present study investigated the binding and function of the platelet 5-HT transporter (SERT), in relation to circulating insulin, leptin, glycolipid metabolic parameters and body-mass indices (BMIs, Kg m<sup>-2</sup>). **Methods:** The study included an observational clinical cohort of 74 drug-free subjects (51W; 23M), recruited on the basis of divergent BMIs (16.5-54.8 Kg m<sup>-2</sup>). All subjects were tested for their blood glycolipid profile together platelet [<sup>3</sup>H]-paroxetine ([<sup>3</sup>H]-Par) binding and [<sup>3</sup>H]-5-HT reuptake measurements from April 1<sup>st</sup> to June 30<sup>th</sup> 2019.

**Results:** The  $[{}^{3}H]$ -Par B<sub>max</sub> (fmol/mg proteins) was progressively reduced with increasing BMIs (p<.001), without changes in affinity. Moreover, B<sub>max</sub> was negatively correlated with BMI, waist/hip circumferences, triglycerides, glucose, insulin and leptin, while positively with HDL cholesterol (p<.01). The reduction of 5-HT uptake rate ( $V_{max}$ , pmol//min/10<sup>9</sup>platelets) amongst BMI groups was not statistically significant, but  $V_{max}$  negatively correlated with leptin and uptake affinity values (p<.05). Besides, [<sup>3</sup>H]-Par affinity values positively correlated with glycaemia and triglycerides, while [<sup>3</sup>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<sub>max</sub> 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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**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 socioprofessional 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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**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 oxygencompound, 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.

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Disclosure of Interest: None Declared