disorders, schizophrenia, bipolar disorder, addictive disorders, certain personality disorders etc. Specific instruments for assessment of anhedonia have been published in the international literature but their Hungarian versions are not available so far, however, the prevalence of affective disorders and suicide are also high in Hungary. The Snaith-Hamilton Pleasure Scale (SHAPS) is an instrument developed in 1995 (Snaith et al. Br J Psychiatry1995;167:99-103) which purposley has been constructed with items that can be easily translated into other languages.

Objectives: The aim of our study was to translate the 14 items into Hungarian and analyse its reability and sensitivity in a Hungarian sample consists of patinets and control persons. Further aim was to explore the differences of anhedonia profiles among diagnostic categories and subgroup of major disorders.

Methods: We recruited 170 subjects (101 controls and 59 patients; 78 men and 82 women; mean age=37,9±6,1y) into our study. Among the patients there were 27 subjects with major depressive disorer (MDD), 10 subjects with bipolar disorder (BD), 9 patients with schizophrenia (SCZ), 6 patients with addictive disorder (AD) and 7 patients with anxiety disorder (ANX)±. We created two major subgorups from the dfferent diagnostic categories: affective and psychotic subgroups to compare the anhedonic profiles. Differences of mean values between case and control, men and women and subgroups were analysed by t-tests and diganostic categories by ANOVA tests performing in SPSS 20.0 software.

Results: Among the MDD, the BD, the SCZ, the AD and the ANX groups, patients with MDD produced the highest score (6.9±3.5; 3.9 ±2.4; 5.9±3.9; 2.8±2.7;2.3±1.8, respectively), while controls prohibited 1.6±1.3. The case group scored significantly higher on the SHAPS than the control group (5.3± 3.6 vs. 1.6±1.3; p=0.0001). The means of SHAPS did not differ significantly between the affective subgroup and the psychotic subgroup (6.0±3.7 vs. 4.8 ±3.2; p=0.24). Among the subgroup of women, the age was significantly associated with the SHAPS score (p=0,04), however, this association has been not detected in men.

Conclusions: The Hungarian version of the SHAPS detected marked difference between cases and controls with good reliability and sensitivity. The instrument can be useful in daily clinical routin becuase subjects could fill it easily and quickly. In case of patients with pronounced anhedonia, treatments with spcifically targeting anhedonia can be preferred (e.g. rTMS as it was demonstrated in our earlier publications, see Lazary et al. Sci Rep 2021,11:8867; Elemery et al. Front Psychiatry 2022, 13:806731). This study was supported by the grant EFOP 5.6.2.

Disclosure of Interest: None Declared

EPV0404

Breath Gas Markers in Depression and Their Relationship with Brain Metabolism

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Introduction: Dysfunctional changes in the glutamatergic system play an important role in the pathophysiology of depression. Glutamate regulates various neuronal function, such as nerve migration, excitability, plasticity, as well as long-term potentiation and long-term synaptic depression. Failures in this process might cause emotional/cognitive changes associated with stress-induced depressive symptoms, a part of our current understanding of the pathophysiology of depression. These changes might be related to deviations in biochemical blood parameters, but also to volatile organic compounds (VOCs) measured in breath.

Objectives: 1) To replicate our previous finding that concentration of volatile organic compounds in expiratory breath gas and metabolites derived from MR spectroscopy distinguish unmedicated depressed patients from healthy participants, (2) to determine whether the amount of these VOCs is associated with severity of depression and anxiety, and (3) to correlate breath-VOC-content with glutamatergic neurotransmission and energy metabolism derived from MR spectroscopy.

Methods: 25 antidepressant-free patients with major depression according to DSM V (18-65 years of age) are recruited from our out- and inpatient clinics. The controls will consist of 25 healthy age-and-sex-matched participants. Breath gas analyses will be carried out at awakening, and 30 and 60 minutes thereafter, and at 5pm using PTR-TOF-MS with direct on time measurement through a special sampler. A 7 Tesla Siemens Terra MRI scanner will be used to undertake spectroscopic measurements. Concentrations of glutamate and β-hydroxybutyrate levels in the pregenual and dorsal anterior cingulate gyrus will subsequently be assessed.

Results: Statistical analysis for differences between groups corrected for multiple measurements will be carried out. Concentration of VOCs will be correlated with brain metabolism and severity of symptoms.

Conclusions: VOCs in breath are proposed to be an efficient and non-invasive marker for depression-related biochemical changes related to disease severity, and eventually useful for personalized treatment planning.

Disclosure of Interest: None Declared

EPV0406

Effects of a Cognitive Bias Modification Training on Resting State EEG Microstates in Patients with MDD and Healthy Controls

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Introduction: Major Depressive Disorder (MDD) is associated with a high burden of disease and notable economic costs. Standard treatments (e.g. medication or cognitive therapy) have been shown to be effective, but some patients remain unresponsive. With the knowledge that MDD patients have been shown to display an attentional cognitive bias towards negative stimuli,

Cognitive Bias Modification (CBM)-training to focus attention on positive information is thought to improve emotional processing and depressive symptoms. Some studies imply reduced duration and occurrence of microstate D in MDD compared to healthy controls. However, the effect of CBM on microstates is still unclear.
Objectives: (1) To replicate previous findings that duration and occurrence of microstate D is reduced in patients with MDD compared to healthy controls in an independent sample and (2) to investigate the effect of an active CBM-training versus a control-training on microstates and its association with symptom improvements.
Methods: Thirty patients receiving outpatient treatment with MDD according to DSM V (aged 18-60) will be recruited in Essen and Aachen. The control group will consist of 30 healthy age-and-sex-matched participants. Psychological testing will be administered and all participants will be randomized to either an active or a control training. During the next visit, resting state EEG and a GoNoGo Task with positive, neutral and negative pictures will be measured. The participants will take a tablet home to undergo 10 sessions of CBM within 14 days. The training will be consisted of a dot-probe-task. In the active condition the probe will be more likely to appear behind a positive versus a neutral picture, while appearing randomly in the control condition. After 14 days, a second EEG will be recorded.
Results: Differences in duration and occurrence of microstate D between patients and healthy controls will be analyzed by conducting ANCOVAs with age and sex as covariates. ANCOVAs for repeated measurements will be calculated to study effects of time (pre- vs. post-training) and group (patients vs. healthy controls in active training; patients in active vs. patients in control-training), on duration and occurrence of microstate D.
Conclusions: CBM-training is proposed to be an effective treatment option for MDD patients, reflected in a reduced topographical bias of microstate D in EEG.

Disclosure of Interest: None Declared

EPV0407

Larks under pressure: The genetic background of the morning chronotype may contribute to depression in interaction with stress

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Introduction: Depression is a highly prevalent, multifactorial, complex disorder, its etiology is assumed to involve both genetic and environmental factors. Genetic factors, including biological clock genes such as *CLOCK* and *SIRT1*, have been linked to depression, particularly its symptom related sleep disturbances. Environmental factors also play a crucial role in the background of depression, particularly in interaction with genetic factors. Known environmental stress factors include stress caused negative life events or childhood adversities.
Objectives: This study aims to delve into the chronotype-specific impacts of genes previously correlated with circadian functionality on the pathomechanism of depression in interaction with environmental stress factors.
Methods: A genome-wide association study on the 'morning chronotype' phenotype was conducted with Plink2, utilizing data from the UK Biobank discovery sample (N = 139135). Using LDPred2we derived a polygenic risk score (PRS) for the NewMood Hungarian dataset (N = 1820). We performed pathway-specific analyses including genes implicated within the genetic pathway, drawing on prior research findings. Specifically, we selected the top genes (with a false discovery rate-corrected p-value < 0.05) from the "responders vs. non-responders" analysis conducted by Jerome C. Foo et al.Transl Psychiatry 2019; 9 343). We performed a main effect analysis investigating the pathway specific PRS's effect on BSI depression scores and interaction analyses using life course (number of negative life events in the past life) and recent (number of negative life events in the past year) stress scores to investigate how the interaction term predicts depression in our target sample.
Results: Our primary analysis revealed a nominally significant protective effect (beta = -20.90938, p = 0.070218). Subsequently, in the context of our interaction analysis, we identified significant risk associations, both with lifetime stress (beta = 13.7416, p = 0.0171) and recent stress (beta = 24.6034, p = 0.0038)
Conclusions: Our study unveiled a protective role in our primary analysis, juxtaposed with risk associations in our interaction analyses. This intriguing dichotomy underscores that this genetic pathway, associated with circadian dysregulation, exerts a protective influence in association with the morning chronotype. However, it transitions into a predisposing factor for depression when influenced by environmental stress factors.
Considering these findings, our study substantiates the hypothesis that both circadian genes and chronotype contribute to the pathogenesis and clinical manifestation of depression. Additionally, it underscores the pivotal role of stress as a contributing factor in the intricate pathogenesis of depression.

Disclosure of Interest: None Declared

EPV0408

Depression: Biological Non-Pharmacological Interventions. A Review.

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Introduction: Major depressive disorder stands as one of the most significant mental health issues in the general population. It impacts the patients' quality of life and increases both morbidity and mortality. Response and tolerability to available