

1/3 participants were below the detectable limits of ELISA kits. Forward logistic stepwise regression analysis screened out three serum proteins including BDNF, cortisol and IFN-gamma to build the model. The regression equation was  $Z = 1/[1 + e^{-(1.438+0.005(BDNF)-0.049(\text{cortisol})-0.007(\text{IFN-gamma}))}]$ , and the diagnostic efficacy of these three proteins-combined achieved an area under the ROC curve of 0.884 with sensitivity of 86.7% and specificity of 83.3%.

**Conclusions:** The results of this study provided a more reliable method to diagnose MDD, and the combination of serum BDNF, cortisol and IFN-gamma may provide an objective diagnostic platform for MDD.

**Keywords:** major depressive disorder; biomarkers; multiple serum proteins; diagnostic platform

### EPP0509

#### Association of perceived stress and coping strategies with depressive symptoms in students at a private medical college in islamabad

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**Introduction:** The environment at medical colleges is competitive and typically generates higher stress levels. Both academic and psychosocial stresses appear to play a role, and the resourceful students who are able to employ effective coping strategies to deal with their stress are shown to outperform their peers in the academic settings.

**Objectives:** Objective: To determine the Association of Perceived Stress and Coping Strategies with Depressive symptoms in students at a private medical college in Islamabad

**Methods:** Fourth and Final year medical students of Foundation university medical college were enrolled in the study. Beck's Depression Inventory was used to assess the depressive symptoms, Perceived Stress Scale (PSS) was the tool used to look for the perceived stress and the coping strategies were assessed using the Brief COPE Inventory. Association of Perceived Stress and Coping Strategies with Depressive symptoms and other sociodemographic factors was established.

**Results:** Out of 262 medical students studied, 211 (80.5%) had no or mild depressive symptoms while 51 (19.5%) had moderate to severe depressive symptoms. 66 (25.2%) had low stress, 127 (48.4%) had moderate stress while 69 (26.3%) had high stress. Chi-square test revealed that perceived stress, self-distraction, active coping, denial, substance use, behavioral disengagement, positive reframing, acceptance, religion/ spirituality and self-blaming had statistically significant relationship with presence of depressive symptoms among the target population.

**Conclusions:** Considerable number of medical students had presence of moderate to severe depressive symptoms in our study. Perceived stress and some specific kinds of coping strategies had significant association with presence of depressive symptoms among target population

**Keywords:** coping strategies; depression; perceived stress.

### EPP0512

#### Third generation cognitive-behavioral therapies for major depressive disorder- a literature review

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**Introduction:** Cognitive behavioral therapies (CBT) represent a heterogeneous group of psychotherapies in continuous development that share a directive, structured, collaborative approach. Due to a high degree of treatment-resistant cases of major depressive disorder (MDD), new augmentation therapies are urgently needed, in order to increase the chance of recovery in these patients.

**Objectives:** To analyze data that may support the indication of third wave CBT in patients with MDD.

**Methods:** A literature search was performed in the main electronic databases, and papers published between January 2000 and August 2020 were included.

**Results:** Acceptance and commitment therapy has been associated with positive results, but data are derived from low quality trials (n=2). Dialectical-behavioral therapy (DBT)-based skill group have been also associated with favorable outcome, in MDD patients (n=2). Mindfulness-based cognitive therapy (MBCT) was also proven effective in the treatment in MDD (n=4), treatment-resistant MDD included, but the difference between MBCT and active comparators was not always significant. Metacognitive therapy (MCT) has been evaluated in good quality clinical trials (n=4), and its efficacy was confirmed. Mild and moderate MDD patients may benefit from compassion-focused therapy (CFT) (n=1). Behavioral activation (BA) is dedicated to MDD patients and according to a meta-analysis (n=26 randomized controlled trials) BA is superior to other active comparators, although the quality of clinical trials was modest.

**Conclusions:** Third generation CBT could be useful in MDD patients as augmentative strategy, but more good-quality data are necessary before recommending them in an evidence-based treatment guideline as a distinctive intervention from classical CBT.

**Keywords:** cognitive-behavioral therapy; major depressive disorder; mindfulness

### EPP0514

#### Differences in the preferred food tastes characteristics in patients with depressive disorder and healthy subjects

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**Introduction:** There is no doubt that the symptoms of depression is the loss of appetite and loss the ability to taste food. However there is unanswered question how depression disorder impact different preferences of food tastes, which was sought to be explored in this study.

**Objectives:** were to evaluate changes in characteristics of food tastes in patients with depressive disorder and healthy controls; and to find the association with clinical expression of depressive severity.

**Methods:** 74 patients with depressive disorder (according DSM-V, MINI 6.0.0) and 38 healthy controls, 18 to 55 age old, were included into this study. The subjects were interviewed using the socio-demographic and the food sensory questionnaires. The severity of depression was rated using Montgomery-Asberg Depression Rating Scale (MADRS).

**Results:** There were significantly more patients with depressive disorder in comparison to healthy controls preferred non-spicy taste of food (66.2 % vs. 47.4 % respectively,  $p=0.025$ ) and non-sour taste of food (66.2% vs 50.0 %, respectively,  $p=0.015$ ), without significant differences in preference of salty and sweet food tastes. Among study patients with depressive disorder, the majority (71.6%) suffered from moderate severe depression, 23 % - severe depression and 5.4 % had mild severity depression. The preferences of tastes of the food (sour, sweet, salty, spicy) were independent of the severity of the depressive disorder ( $p>0.05$ )

**Conclusions:** Patients with depressive disorder prefer non-spicy and non-sour food tastes, without differences in salty and sweet foods; it have found independent of the severity of the depressive disorder.

**Keywords:** depression; taste; food

### EPP0517

#### Emotional blunting and cognitive profile in elderly depressed patients in treatment with vortioxetine

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**Introduction:** Antidepressants in older people have experienced their increase in medical prescriptions in recent decades whit comorbidity with other pathologies and drug polytherapies. With the use of antidepressants, can be observed side and unwanted effects (e.g. emotional blunting). Vortioxetine is a new antidepressant agent which promises fewer side effects.

**Objectives:** To evaluate the clinical efficacy, safety, side effects (e.g. emotional blunting) and cognitive profile

**Methods:** 45 elderly patients affected by MDD (DSM-5) were recruited in our observational study. All patients were treated with vortioxetine for 12 months. Physiological and pathological parameters were collected at baseline (T0), after 3 months (T1), 6 months (T2); 12 months (T3). All patients were administered the following scales: GDS; MMSE; QLi; ODQ. The statistical data were processed with EZAnalyze.

**Results:** 33.33% of patients had a score in the “unlikely depression” GDS group. The ANOVA ODQ “Total” results indicate that at least two of the repeated measures differ significantly. Data of the “antidepressant as cause” dimension are interesting [T0 vs T3 (P-Unadjusted .000; P-Bonferroni .000; T-value 5.687. MMSE scores are indicative of one small but not significant difference. Mean QLiIndex scores did not show statistically significant changes, but are indicative of positive changes from the baseline score

**Conclusions:** Vortioxetine resulted in partial reduction of depression. There was a moderate non-statistically significant increase in body weight, glycidic and lipid profiles. Overall data highlight the importance and role that vortioxetine can have in the management of depressive symptoms in elderly subjects. The handling, effectiveness and reduced side effects of the molecule are emphasized.

**Keywords:** Depression; EMOTIONAL BLUNTING; Vortioxetine; Pharmacology

### EPP0518

#### Childhood trauma influences the age of onset and severity of major depressive disorder via brain function

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**Introduction:** Associations between childhood trauma (CT), social support (SS), brain functions and major depressive disorder (MDD) is unknown.

**Objectives:** This study aimed to investigate whether brain functions mediated associations between CT, SS, and MDD.

**Methods:** 164 MDD and 98 healthy controls (HC) were recruited and measured by HAMD-24 and HAMA. Some completed CT questionnaire (CTQ) and social support rating scale (SSRS). We examined amplitude of low-frequency fluctuation (ALFF) between the two groups and correlations between HAMD-24, HAMA and ALFF in MDD. Then, the peak voxels of the ALFF changed regions were used as seeds to analyze whole-brain functional connectivity (FC). Next, correlations between FC and clinical variables of MDD were performed. Last, mediation analysis was used to further determine whether ALFF or FC could mediate the associations between CT, SS, and different clinical variables in MDD patients.

**Results:** Compared to HC, MDD showed decreased ALFF in right posterior cingulate (PCC\_R), left postcentral gyrus, right precentral gyrus, and left thalamus (THA\_L), but increased ALFF in right medial frontal gyrus, left subgenual anterior cingulate, and left middle occipital gyrus as well as decreased FC in bilateral PCC and THA\_R. HAMD-24 had negative correlation with ALFF of THA\_L, while positive with sexual abuse (SA) score in MDD. Mediation analysis revealed that FC of PCC\_R mediated association between SA and baseline HAMD-24, and itself or together with SS mediated association between CT and onset age of MDD.

**Conclusions:** CT may influence the depression severity and onset age of MDD by moderating FC of PCC\_R only or together with SS.

**Keywords:** major depressive disorder; childhood trauma; brain function; social support