Objectives: To investigate cerebral biomarkers of therapeutic response to Acceptance and Commitment Therapy (ACT) versus Progressive Relaxation Therapy (PRT) in depression and suicidal risk.
Methods: This randomized controlled trial included 32 patients with a history of suicide attempts in the past year who underwent seven weekly sessions of ACT or PRT. They completed clinical and MRI examinations (resting state, diffusion tensor, cerebral blood flow measured by pCASL, and anatomical sessions) at baseline and after therapy completion. Resting-state functional changes (graph theory, functional connectivity) in two networks identified in previous depression studies (Zhang X, Xu R, Ma H, et al. Biol Psychiatry 2024;95:1091-1099), according to the Schaefer atlas, were measured between groups and in the entire sample. A Principal Component Analysis (PCA) was conducted to combine depression, hopelessness, and psychological pain into a single composite variable, explaining 77.8% of the variance with strong correlations to the original variables: r = .91. This Depression Component (DC) was used in further analyses.
Results: The patients were predominantly women (87.5%) with a mean age of 40 years (SD = 12). 81% of patients experienced current depression. No significant Group x Time interaction was found. In the whole sample, no anatomy nor diffusion tensor metrics modification has been found. However, the reduction of the DC was negatively correlated with modularity (r = -0.476, pFDR < 0.05) for the Salience Ventral Attentional. Moreover, within this network the DC variable was negatively correlated with the cerebral blood flow of one region (r = -0.5, pFDR < 0.05) and positively correlated with functional connectivity (T = 4.72, pFDR < 0.05) (Figure 1).
Image 1:

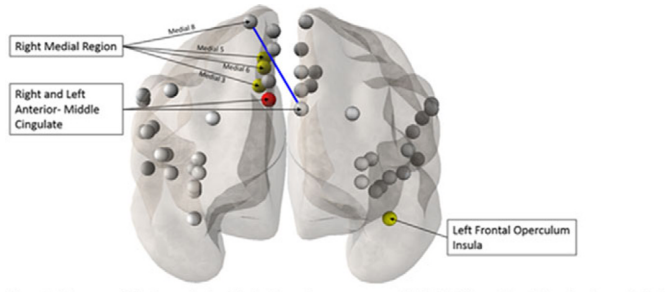

Figure 1 : Summary of Metrics correlating with the depression component variable in the Salience-Ventral-Attentional network. Red is for ROI with a CBF evolution significantly correlated to the depression component (pFDR < 0.05). Yellow represents ROI with a CBF evolution correlated to the depression component, with the correlation approaching significance (pFDR < 0.1). Blue line stands for functional connectivity evolution significantly correlated to the depression component (pFDR < 0.05). Medial 3 corresponds to part of the right middle cingulate cortex; Medial 5 corresponds to part of the precuneus; Medial 6 includes a portion of the paracentral lobule; Medial 8 encompasses part of the supplementary motor area and a small portion of the superior frontal gyrus.

Conclusions: These results suggest that the therapeutic response, and consequently the reduction of the depression component, might be related to a reorganization within the salience network. Modularity refers to how well a brain network is organized into distinct groups or clusters, where connections within each group are stronger than those between different groups. We observed increased modularity and cerebral blood flow within the salience ventral attentional network, which could reflect a more specialized and segregated functional organization. This reorganization could enhance the brain's ability to regulate emotional and cognitive processes, supporting recovery from depression.

Disclosure of Interest: None Declared

EPP396

Treatment Resistant Depression Rates and Related Clinical Variables in a Outpatient Clinic: Pilot data from Türkiye

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Introduction: Major depressive disorder is a global mental health challenge imposing a serious burden on individuals and society. Treatment resistant depression (TRD) is most commonly defined as inadequate treatment response following at least two consecutive antidepressant trials of adequate dose, duration and treatment adherence. TRD is associated with high personal suffering, considerable functional impairment and significant mental health costs.
Objectives: This study investigated the rate of TRD in treatment-seeking outpatients with major depressive disorder and clinically-related variables. We hypothesized that patients with TRD would have more severe symptoms, chronic course and more hospitalization than patients without TRD.
Methods: The files of patients diagnosed with Major Depressive Disorder who had applied to the Outpatient Psychiatry within the last 3 months and had a follow-up history of at least 1 year were reviewed (n=204). Demographic and clinical data of the patients were recorded using a structured data form. Dutch Measure for quantification of Treatment Resistance in depression (DM-TRD) scores were calculated. The study was approved by the Akdeniz University Ethics Committee (approval date:22/8/2024).
Results: Regarding the index episode, the majority of patients had received selective-serotonin reuptake inhibitor (SSRI) treatment (22% escitalopram, 14.2% sertraline). 30.9% of the patients had received augmentation. After the first treatment trial, 21.1% of the patients had treatment-response, and 30.7% achieved remission. After the second treatment trial, 10.5% showed treatment-response, and 16.3% achieved remission. The proportion of patients meeting the criteria for TRD was 29.9%.
When comparing patients with TRD, the total number of depressive episodes was significantly lower (p=0.01), the duration from the onset of the index episode to treatment and recovery was longer (p<0.001, p=0.02; respectively) in those with TRD. The number of ECT episodes and rTMS sessions was higher (p<0.001, p=0.004; respectively), the DM-TRD score, the frequency of benzodiazepine use and the rate of inpatient treatment were also higher (p<0.001, p<0.001, p=0.01; respectively). The rate of non-adherence to treatment, the rate of chronic episodes and symptom severity were higher, functional impairment was more severe, and the frequency of comorbid personality disorders was higher (p<0.001, all).
Conclusions: To the best of our knowledge, this is the first study reporting TRD data from Türkiye. Our results showed that patients with TRD had more chronic and less repetitive illness course, duration of untreated depressive symptoms were longer, use of benzodiazepine, ECT and rTMS treatments were more frequent and longer than patients without TRD. These results should alert clinicians about subprofiles of patients with TRD to predict course and develop preventive effective strategies.

Disclosure of Interest: None Declared