

PERSONALITY FUNCTIONING, MENTALIZATION, AND SYMPTOMATIC RECOVERY IN ACCELERATED TRANSCRANIAL MAGNETIC STIMULATION TREATMENT OF MAJOR DEPRESSIVE DISORDER: PRELIMINARY FINDINGS**Osman Demirci¹, Ali Tarık Altunç², Sarp Yoldaş², Burç Çağrı Poyraz²**¹*Kafkas University, Faculty of Medicine, Department of Psychiatry, Kars, Türkiye*²*Istanbul University-Cerrahpasa, Cerrahpasa Faculty of Medicine, Department of Psychiatry, Türkiye*

BACKGROUND AND AIM: Impairments in personality functioning and mentalization are closely related to depression, yet their treatment response remains understudied. This study investigates changes in these constructs in major depressive disorder patients undergoing accelerated transcranial magnetic stimulation(TMS) treatment.

METHODS: (Ethics Committee Approval must be obtained and the number should be specified). 23 patients receiving accelerated TMS treatment targeting the dorsomedial prefrontal cortex were evaluated before and after treatment using Hamilton Depression Rating Scale(HAMD), Beck Depression Inventory(BDI), Level of Personality Functioning Scale–Brief Form 2.0(LPFS-BF 2.0), and Mentalization Scale(MentS). Independent samples t-tests, Pearson correlations, and linear mixed models were applied to examine relationships and pre–post changes in depression(HAMD, BDI), personality functioning(LPFS-BF 2.0), and mentalization(MentS). Istanbul University–Cerrahpasa Clinical Research Ethics Committee approved the study with decision number 1210653, dated 23.01.2025.

RESULTS: No significant differences were found in baseline LPFS-BF 2.0 ($p=0.15$) or MentS ($p=0.65$) scores when participants were grouped by post-treatment HAMD severity (≥ 8 vs <8). Improvement in HAMD was correlated with improvement in LPFS-BF 2.0 ($r=0.54$, $p=0.008$), whereas improvement in BDI

was correlated with improvement in MentS ($r=0.67$, $p<0.001$). HAMD and LPFS-BF 2.0 scores showed significant reductions ($21.4 \rightarrow 9.1$, $29.0 \rightarrow 23.6$, respectively) with a significant time and measure interaction ($F(1,22)=21.57$, $p<0.001$) that implies a reduction in HAMD significantly greater than that in LPFS-BF 2.0. BDI score showed a significant reduction ($28.7 \rightarrow 17.8$), whereas MentS score increased modestly ($80.1 \rightarrow 82.3$) without reaching significance, and a significant time and measure interaction was found ($F(1,22)=12.92$, $p=0.002$).

CONCLUSIONS: Baseline LPFS-BF 2.0 and MentS scores did not differentiate between remitted and non-remitted patients. While depressive symptoms show a strong response to treatment, improvements in personality functioning and mentalization are more limited. Correlation between improvements in LPFS-BF 2.0 and HAMD scales underscores the interaction between personality dysfunction and depression, while relationship between changes in mentalization and BDI scores may reflect patients' capacity to recognize their symptomatology as reported in self-assessment measures. Despite the small sample, these preliminary findings offer valuable insights, warranting research in larger populations.

Keywords: Personality dysfunction, mentalization, major depressive disorder, transcranial magnetic stimulation