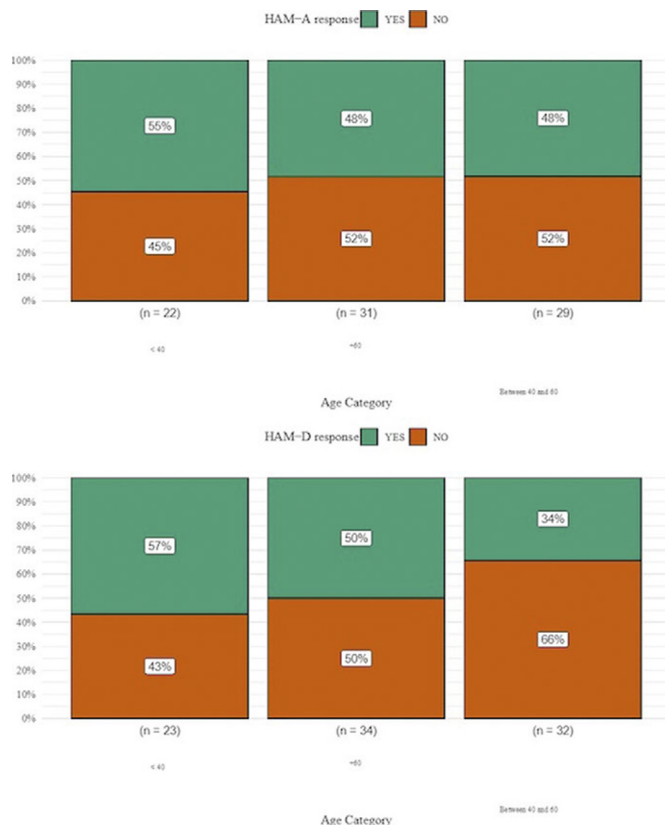


Image 2:



**Conclusions:** High-dose accelerated bilateral TBS using the Sevilla Protocol significantly reduced depression and anxiety symptoms in treatment-resistant patients, with notable response and remission rates. Family history, age, and certain employment statuses significantly influenced treatment response, suggesting that TBS may benefit from tailored approaches. Larger, balanced samples are needed to confirm these findings and improve prediction models.

**Disclosure of Interest:** None Declared

## EPV1649

### Mechanisms and Efficacy of Transcranial Stimulation Technologies in Substance Use Disorders: A Focus on Prefrontal Cortex Stimulation

C. Pinheiro Ramos<sup>1\*</sup>, A. F. Reis<sup>1</sup>, M. J. Freire<sup>1</sup> and S. Mendes<sup>1</sup>

<sup>1</sup>Setúbal Hospital Center, Setúbal, Portugal

\*Corresponding author.

doi: 10.1192/j.eurpsy.2025.2128

**Introduction:** About 31 million people worldwide suffer from substance use disorders (SUDs), causing significant health and economic burdens.

SUDs are linked to reduced dopamine activity in the mesolimbic region of the brain, as well as dysfunction in the dorsolateral prefrontal cortex (DLPFC) and dorsal anterior cingulate cortex

(dACC), which are responsible for decision-making and self-control. Additionally, the ventral prefrontal cortex (PFC), including the orbitofrontal cortex (OFC) and ventral anterior cingulate cortex (vACC), play a role in emotional processing and limbic arousal.

A promising approach to treating SUDs involves non-invasive neuromodulation techniques (NIBS), specifically repetitive transcranial magnetic stimulation (rTMS) and transcranial direct current stimulation (tDCS).

**Objectives:** To better understand the role of non-invasive neuromodulation techniques in substance use disorders.

**Methods:** A search was conducted in various databases, including PubMed.

**Results:** Many studies using rTMS to treat SUDs have targeted the DLPFC. When the left DLPFC is stimulated, the effects are generally positive, and the treatment produces clinically significant results for tobacco, stimulant, and opioid use disorders.

It has been found that the medial PFC (mPFC) could be a potential target for therapy, especially when using deep TMS, as demonstrated by studies involving alcohol and cocaine. Both the DLPFC and mPFC are promising targets for rTMS.

Regarding tDCS, it seems that right anodal DLPFC stimulation is the most effective method across all types of substances.

**Conclusions:** Much remains unknown regarding the mechanisms by which rTMS or tDCS induce therapeutic effects in SUDs. Further research is necessary to determine the clinical safety and efficacy of these treatments.

**Disclosure of Interest:** None Declared

## EPV1650

### Efficacy of Electrostimulation in Treating Major Depressive Disorder and Generalized Anxiety Disorder: A Literature Review

J. R. Pinto Nasr<sup>1\*</sup>, F. H. de Oliveira Bezerra<sup>1</sup>, V. A. Masson<sup>1</sup> and L. R. Ambrósio Filgueiras<sup>1</sup>

<sup>1</sup>Universidade Paulista - Campus Campinas, Campinas, Brazil

\*Corresponding author.

doi: 10.1192/j.eurpsy.2025.2129

**Introduction:** Major Depressive Disorder (MDD) and Generalized Anxiety Disorder (GAD) are prevalent conditions that significantly affect quality of life. Many patients with MDD and GAD do not respond adequately to conventional therapies, such as psychotherapy and antidepressants, highlighting the need for alternative treatments. In this context, electrostimulation, particularly Transcranial Magnetic Stimulation (TMS) and Transcranial Direct Current Stimulation (tDCS), has shown promise by modulating brain activity to relieve symptoms.

**Objectives:** To assess the efficacy of TMS and tDCS in treating MDD and GAD.

**Methods:** This systematic literature review was conducted in SciELO, PubMed, covering the period from 2014 to 2024. After an initial selection of 15 articles, six studies were chosen based on relevance and reliability. The analysis focused on outcomes from controlled and randomized studies as well as systematic reviews and meta-analyses, involving TMS and tDCS.

**Results:** The reviewed studies demonstrated that TMS and tDCS significantly reduce symptoms in MDD and GAD compared to placebo. One study evaluated the combined effect of tDCS with