



Examining the Effectiveness of Repetitive Transcranial Magnetic Stimulation on Obsessive-Compulsive Symptoms in Adults with Attention Deficit Disorder

Kimia Esmaeili¹, Samira Mollaei^{2*}, Pegah Ahmadi³, Mohammad Reza Yekta⁴, Saba Rabiee⁵

¹ M.A of General Psychology, Department of Psychology, Faculty of Humanities, Arsanjan Branch, Islamic Azad University, Arsanjan, Iran

² M.A student of Clinical Psychology, Department of Clinical Psychology, Faculty of Psychology and Education, University of Tehran, Tehran, Iran

³ M.A of General Psychology, Department of Psychology, Faculty of Humanities, Hamedan Branch, Islamic Azad University, Hamedan, Iran

⁴ Ph.D Candidate of Counseling, Department of Psychology and Counseling, Isfahan (Khorasagan) Branch, Islamic Azad University, Isfahaan, Iran

⁵ MSc of Medical Genetics and Genomics, Department of Medical Sciences, College of Medical, Veterinary and Life Sciences, University of Glasgow, Glasgow, Scotland

* Corresponding author email address: samiramollaei@ut.ac.ir

E d i t o r	R e v i e w e r s
Leila Youzbashi Department of sport science, Faculty of Humanities, University of Zanzan, Zanzan, Iran l.youzbashi@znu.ac.ir	Reviewer 1: Zahra Naghsh Associate Professor, Department of Psychology, University of Tehran, Tehran, Iran. Email: z.naghsh@ut.ac.ir Reviewer 2: Yaghob Badriazarin Associate Professor of Sport Sciences, Tabriz University, Tabriz, Iran. Email: badriazarin@tbzmed.ac.ir

1. Round 1

1.1 Reviewer 1

Date: 28 February 2025

Reviewer:

The sentence "Attention Deficit Disorder (ADD) is a condition that has been extensively studied..." uses outdated terminology. It is more scientifically accurate to refer to the condition as "Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive Presentation (ADHD-PI)" in accordance with DSM-5 guidelines.

The sentence “...it becomes essential to investigate the impact of Repetitive Transcranial Magnetic Stimulation on obsessive-compulsive symptoms...” would benefit from a statement of the research hypothesis and study objectives in explicit, testable terms.

The means and SDs for posttest scores in both groups are extremely close (e.g., SD of 11.11 and 12.25). Please clarify how such large variances still yielded a statistically significant ANCOVA result with $F = 23.32$.

The p-value for the pretest covariate is reported as .11, suggesting non-significance. However, this should typically be $<.05$ to justify the use of ANCOVA. Please clarify the rationale or verify the results.

The sentence “This finding is consistent with the results of prior studies (20–22)” lacks detailed engagement with the cited works. A more critical comparison with effect sizes or methodology from these studies would strengthen your argument.

While the article notes that rTMS has fewer side effects than pharmacotherapy, it does not mention any adverse effects observed or monitored during the study. Please report whether any side effects occurred.

Authors revised the manuscript and uploaded the updated document.

1.2 Reviewer 2

Date: 05 March 2025

Reviewer:

The sentence “One of the components often observed in individuals with Attention Deficit Disorder is the presence of obsessive-compulsive symptoms (5)” lacks clarification on whether these are full OCD diagnoses or subclinical symptoms. Please specify the nature and prevalence of comorbidity with up-to-date epidemiological data.

While the paragraph discusses the DLPFC, the article does not specify which hemisphere (left or right) is primarily implicated in OCD or ADD in prior research. A clearer link between lateralization of symptoms and stimulation site would improve coherence.

The demographic table does not include measures of statistical comparison (e.g., χ^2 tests) between groups for categorical variables. Please report and discuss whether groups were equivalent at baseline.

The sentence “...causing hyperpolarization of neuronal activity” inaccurately describes the mechanism of rTMS. The primary mechanism is depolarization, not hyperpolarization. Please correct this neurophysiological explanation.

The article claims that “rTMS may help regulate neurotransmitter secretion patterns,” but this is speculative without direct neurochemical evidence in the study. Please qualify this statement or support it with specific studies.

Authors revised the manuscript and uploaded the updated document.

2. Revised

Editor’s decision after revisions: Accepted.

Editor in Chief’s decision: Accepted.