REVIEWER'S REPORT

Manuscript No.: IJAR-55863

Title: Recalibrating the depressed brain through transcranial magnetic stimulation and neuro biofeedback for patients with depressive disorders

Recommendation:
Accept as it is ....
✓ Accept after minor revision.................
Accept after major revision ....
Do not accept (*Reasons below*) ....

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity		✓		
Significance		✓		

Reviewer Name: Dr S. K. Nath   **Date:** 21.01.26

Detailed Reviewer's Report

Strengths of the Study

- **Originality:** The paper provides a comparative review of two emerging non-invasive brain modulation techniques TMS and neurofeedback in the context of depressive disorders, contributing valuable synthesis to the field.
- **Relevance:** Given the rising interest in alternative therapies for depression, especially treatment-resistant depression, this research is highly relevant for clinical practitioners and neuroscientists.
- **Methodology:** Utilizes a systematic PRISMA-based review approach, including comprehensive data collection from multiple reputable databases. The inclusion of recent studies (up to 2023) enhances the timeliness of the review.
- **Data Quality:** The review references peer-reviewed, credible sources, and incorporates a balanced analysis of multiple studies, including meta-analyses, clinical trials, and neuroimaging research.
- **Contribution:** Offers a nuanced discussion on the therapeutic efficacy, safety, and potential future directions for TMS and neurofeedback, aiding the development of personalized treatment approaches.

Weaknesses of the Study

- **Methodological Limitations:** The review combines diverse study designs without detailed quality assessment or weighting, which may influence the reliability of synthesized conclusions.
- **Sample Size and Diversity:** The paper refers to a broad spectrum of studies but does not critically analyze sample sizes or demographic diversity, which can impact the generalizability.
- **Statistical Analysis:** Lacks a formal meta-analytic or statistical synthesis of data, limiting the objectivity of the comparative effectiveness claims.
- **Potential Bias:** No mention of bias assessment tools (e.g., risk of bias, publication bias) applied to the included studies.
- **Presentation and Clarity:** Occasionally, the writing is verbose and could benefit from clearer structuring. Certain sections, especially methodology and results, are densely packed, making easy comprehension challenging.
- **Figures/Tables:** The manuscript references data summarization but lacks visual aids such as tables or figures to enhance clarity.
- **References:** While comprehensive, some references are outdated considering the rapid development in this field; also, inconsistent citation formatting observed.

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

REVIEWER'S REPORT

Reviewer Comments

- **Title and Abstract Clarity:** The title accurately reflects the manuscript's focus. The abstract succinctly summarizes the review's purpose, methodology, and key findings, but could be clearer in highlighting specific comparative results.
- **Introduction and Objectives:** The introduction adequately contextualizes depression treatments and introduces TMS and neurofeedback. However, explicit research questions or hypotheses should be clearly stated alongside the objectives for better clarity.
- **Methodology and Statistical Analysis:** The PRISMA approach is appropriate; however, details on inclusion/exclusion criteria, quality assessment tools, and data extraction procedures are insufficient. No formal statistical synthesis (meta-analysis) is presented, which limits strength of conclusions.
- **Results and Discussion:** The integrated discussion is comprehensive but would benefit from more structured presentation—e.g., summarizing main findings in tables. Some claims about efficacy are supported qualitatively but lack quantitative backing.
- **Conclusion and Implications:** The conclusion appropriately reflects the findings but could better emphasize clinical implications and limitations. Forward-looking suggestions are brief; expanded future directions would enhance impact.
- **Ethical Clearance:** As this is a literature review, ethical approval is generally not required. No ethical approval details are mentioned, which is acceptable.
- **Grammar, Language, and Typographical Errors:** Overall, language is clear, but there are minor grammatical issues and some awkward phrasing that warrant editing for fluency.
- **Tables, Figures, Formatting, References:** The manuscript would be improved by incorporating comparative tables summarizing key outcomes from reviewed studies and consistent reference formatting (e.g., journal abbreviations, citation style).

Checking for Prior Publication

A comprehensive check using available plagiarism detection tools and literature databases indicates that this specific manuscript has not been published previously on the internet or in other journals. It appears to be an original synthesis prepared for peer review.