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OPEN PEER REVIEW

Effectiveness of Combined Treatment of Transcranial Direct Current Stimulation and Treatment as Usual on Depression, Anxiety and Anger in Adolescents with Bipolar Disorder

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About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

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1 Original submission

4 comments · 10 Jan 2024 – 13 Jan 2024

Referee 1 Reviewer

MINOR REVISION 10 Jan 2024

Dear Dr. Riahi and co-authors,

Thank you for the opportunity to review your manuscript titled "Effectiveness of Combined Treatment of Transcranial Direct Current Stimulation and Treatment as Usual on Depression, Anxiety and Anger in Patients with Bipolar Disorder". The study aims to evaluate the efficacy of tDCS as an add-on treatment for bipolar depression, which is an important clinical problem. The methods and analysis appear to be sound. However, there are some areas that could be strengthened, which may improve the manuscript:

1. Consider adding more details regarding sample size calculation and power analysis to justify the number of subjects included.

2. Provide some discussion on the generalizability of the findings given that the study was conducted at a single site. Consider the limitations of the targeting sampling method used.

3. Expand on the limitations section to include other potential weaknesses such as lack of quantitative scales for bipolar symptom assessment and short follow-up duration.

4. Discuss molecular or neuroimaging findings from previous studies supporting the rationale for the tDCS target region chosen.

5. There are some minor grammatical/typographic errors that need correction for improved readability and flow.

Overall, the study addresses an important clinical problem and preliminary findings are encouraging. With some modifications addressing the points above, the manuscript could be more robust. I recommend acceptance pending revisions. Please let me know if you need any clarification on my feedback. I'm happy to discuss further.

Regards

Referee 2 Reviewer

MINOR REVISION 12 Jan 2024

I want to inform you that the manuscript review is finished, and you need to make a minor revision.

Associate Editor

MAJOR REVISION 13 Jan 2024

Dear EIC,
I thank the authors and express my appreciation to the researchers. The manuscript is a valuable piece of research. But some revisions are needed. The authors should revise it based on the comments. Also, minor changes should be made in the abstract:
1- The study design should be mentioned in the first line of the method section of the ABSTRACT.
2- A summary of the statistical analysis results should be mentioned in the result section of the ABSTRACT.

Editor-in-Chief MAJOR REVISION 13 Jan 2024

Dear Author,
Thank you for submitting the article. It needs some revision. Please revise it based on the reviewers' and AE's comments.

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Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Dear Dr. Boloursaz,
Editor-in-chief
Journal of comprehensive of pediatrics

Thank you for inviting us to resubmit a revision of our manuscript, entitled “Effectiveness of Combined Treatment of Transcranial Direct Current Stimulation and Treatment as Usual on Depression, Anxiety and Anger in Patients with Bipolar Disorder" with Ref. ID of " 142787". The manuscript has certainly benefited from these insightful suggestions. All parts of the manuscript have been modified according to the comments of the referees and have marked scientific edits with blue color to make them easier to identify in the text. We have attached a point-by-point response to each of the referee's comments below and we hope that our manuscript can now be fully accepted for publication.
Thank you in advance for your kind review of our manuscript

Best regards,

Dr. S. F.

Comments from the editors and reviewers:

Thanks to the authors and appreciation to the researchers. The manuscript is valuable research. But some revisions are needed. Authors should revise it based on comments. Also, minor changes should be done in abstract.
Thanks for taking the time to review our manuscript and appreciate your valuable comments.

-Reviewer 1

1. Study design should be mentioned in first line of method section of ABSTRACT.
   Response: We have added the following sentences regarding this comment (page 1, lines 22 and 23).
2. Summary of Statistical analysis results should be mention in result section of ABSTRACT.
   Response: We have added the statistical analysis results regarding this comment (page 1, lines 32 - 40).

Reviewer: 2

Thank you for the opportunity to review your manuscript titled "Effectiveness of Combined Treatment of Transcranial Direct Current Stimulation and Treatment as Usual on Depression, Anxiety and Anger in Patients with Bipolar Disorder". The study aims to evaluate the efficacy of tDCS as an add-on treatment for bipolar depression which is an important clinical problem. The methods and analysis appear to be sound. However, there are some areas that could be strengthened which may improve the manuscript:
We thank the reviewer for the kind comments.

1 - Consider adding more details regarding sample size calculation and power analysis to justify the number of subjects included.
Response: I appreciate for valuable comment. We explain this comment in the limitations section and try to justify as much as possible.

2- Provide some discussion on generalizability of findings given the study was conducted at a single site. Consider limitations of targeting sampling method used.
Response: We expand the limitations section and explain more regarding targeting sampling method. (Page 10, lines 287-293).

3 -. Expand on the limitations section to include other potential weaknesses such as lack of quantitative scales for bipolar symptom assessment and short follow-up duration.
Response: This section has been revised based on the reviewer's comment (page 10, lines 287-293).

4 - Discuss molecular or neuroimaging findings from previous studies supporting the rationale for tDCS target region chosen.
Response: To clarify this point, new references have been added (PMID: 32267339, 18689286, 33130252, PMC8596350, page 7 and 8, lines 210 - 217).

5 - There are some minor grammatical/typographic errors that need correction for improved readability and flow.
Response: Thanks for your comment and accordingly the manuscript has been revised to improve readability and flow.

6 - This study is not new. The published article: Mardani P, Zolghadriha A, Dadashi M, Javdani H, Mousavi SE. Effect of medication therapy combined with transcranial direct current stimulation on depression and response inhibition of patients with bipolar disorder type I: a clinical trial. BMC Psychiatry. 2021 Nov 17;21(1):579. doi: 10.1186/s12888-021-03592-6. PMID: 34789181; PMCID: PMC8596350.
Response: Thanks for your comment and the current study was conducted on adolescents, but Mardani's study is on adults.

Reviewer: 3

Subject

1) Is the article within the scope of the journal? Yes, considering that it was done on bipolar patients aged 12 to 18, it is suitable.

Response: Done.

2) Does the article have novelty? Yes, most studies examined the effect of tDCS on adult bipolar patients, and the study in this age range has not been conducted in Iran.

Response: Based on our knowledge, this is the first paper on bipolar children and adolescents

Title

3) Does the title reflect the content appropriately? Considering that it was studied on bipolar patients aged 12 to 18 and the journal is also pediatric, the title should also mention adolescents.

Response: revised.

4) Is there any abbreviation in the title? No

Abstract

5) Is there a structured Abstract? In the result section of the abstract, the score of the questionnaires should be mentioned numerically.

Response: Done.

6) Are Keywords (3-10) selected from MESH? yes, In the keywords, anger should be removed and preferably keywords should be added.

Response: revised.

Introduction

7) Clarity of the objectives/hypotheses? (Are the objectives clearly stated?) The introduction is well written.

8) Does Introduction include: “What we know,” “What we don’t know” and “Aims”? Yes.

Materials And Methods

9) Clearly describe the selection of participants (patients or laboratory animals, including controls)? Write the total number of patients in the population field.

Response: Based on your comment, the total number of patients added.

10) Study Design Described Sufficiently? Well defined.

11) Adequacy of the sample studied? Yes

12) Subjects Representative of Target Population? Yes

13) Provided sample size calculation or justification? How to determine the sample size should be written?

Response: sample sizez is added.

14) Control Subjects Appropriate? Yes, the explanation was enough.

15) Power of study declared? Yes

16) Reported actual P values for primary analyses? the numerical value is mentioned.

Response: The numerical value are mentioned.

17) Blinding of Investigators (if applicable)? Blinding is described.

18) Blinding of subjects (if applicable)? Blinding is described.

19) Identify the methods apparatus (give the manufacturer's name and address in parentheses)? Mention the name of the tDCS machine and its company, as well as how many channels it has and...

Response: data related to the devise was added.

20) Identify procedures in sufficient detail to allow other workers to reproduce the results? Suitable.

21) Identify precisely all drugs and chemicals used, including generic name(s), dose(s), and route(s) of administration? Well defined.

22) Inclusion/Exclusion Criteria Explained? Enter only the DSM-5 criteria.

Response: thank you four valuable comment. It is written that patients were included based on DSM-5 criteria

23) Appropriate Statistical Analysis? Yes

Results

24) Appropriateness, clarity, and adequacy of the Tables and Figures? It has 5 tables and it is mentioned in the text and it is sufficient

25) Present results in logical sequence in the text, tables, and illustrations, giving the main or most important findings? The description of Table 5 should be expanded.

Response: Based on your comment, the description was added.

26) Duplicate data in graphs and tables? No

27) Use technical terms as non-technical in statistics, such as “random” (which implies a randomizing device), “normal,” “significant,” “correlations,” and “sample.”? -

Discussion

28) Conclusion justified & substantiated? The conclusion is written separately and concluded well.

29) Analysis supports Conclusion? Yes, in the end of discussion part, the strength of the study should be added.

References

30) Proper Writing of the References? Yes

31) References for the last five years? Add some 2022 and 2023 references

Response: many thanks. Two new refrence were added.

2 Revision 1

3 comments · 20 Feb 2024 – 2 Mar 2024

Referee 1 Reviewer

ACCEPT 20 Feb 2024

Thank you for implementing the comments.

Associate Editor

ACCEPT 1 Mar 2024

Dear EIC.
Previous errors have been corrected, and there are no further recommendations.

Editor-in-Chief

ACCEPT 2 Mar 2024

Dear Author,
We appreciate your attentiveness and prompt response to the reviewer's feedback.