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OPEN PEER REVIEW

Effects of a Computer-Based Intervention on Sustained Attention, Divided Attention, and Impulsivity in Children with Attention Deficit Hyperactivity Disorder

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Contents

1 **Original submission** Associate Editor, Editor-in-Chief 2
2 **Revision 1** Associate Editor, Editor-in-Chief 3
Authors' reply to reviewers 4
Reviewer and editor comments 9

1 Original submission

2 comments · 10 Sep 2023 – 10 Sep 2023

Associate Editor

MAJOR REVISION 10 Sep 2023

Major Revision

Editor-in-Chief

MAJOR REVISION 10 Sep 2023

Major Revision

2

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 Reviewers,

Thank you so much for letting us know about the review result of our manuscript. We would also like to express our thanks to the respected reviewers for the insightful comments as well as the opportunity offered to revise and resubmit the manuscript. Upon the comments given by the respected reviewers, the required revisions were done to the manuscript which has been highlighted in green color. We hope that the current revised draft of the manuscript is appropriate enough for getting published in the following issue(s) of the journal. Thank you again for your continued assistance in handling our manuscript.

Reviewer 1:

I appreciate the opportunity to review the manuscript "Effects of a computer-based intervention on sustained attention, divided attention, and impulsivity in children with attention deficit hyperactivity disorder". After reviewing the manuscript, I noticed several issues the authors must address to make this work suitable for publication. The following paragraphs provide suggestions and remarks regarding each section.

Abstract:

In the abstract section, the intervention group (Captain's Log MindPower Builder) is mentioned. Mention the number of sessions and the duration of each session in this section.

The number of sessions and the duration of each session were mentioned in the abstract.

Before mentioning the effectiveness of the intervention program on sustained attention and divided attention in children with ADHD, it is suggested to mention the means results of each variable.

the mean results of each variable were mentioned in the abstract.

In the conclusion section, delete "The research findings indicated that".

This sentence was corrected.

Introduction:

In the introduction section, the author needs to provide statistics on the prevalence of ADHD in Iran and the world by citing references.

Statistics on the prevalence of ADHD in Iran and the world were mentioned in the introduction section

In the introduction section about the intervention used in this research (computer-based intervention (Captain's Log MindPower Builder)), refer to the strong research background.

About the intervention used in this research (computer-based intervention (Captain's Log MindPower Builder)), more information was presented in the introduction section.

What does the author mean by ADH in the introduction section? This phrase is not mentioned anywhere in the article.

This was a typo that was corrected.

Considering the nature of the research, it is suggested to use children with ADHD instead of individuals with ADHD.

These items were corrected in the article.

In the introduction section, by mentioning the study gap, investigate the necessity of the research.

In the introduction section, the vacuum and necessity of the research was mentioned.

Methods:

The number of statistical populations in this study was 103 children with ADHD. Make it clear to readers how to choose a sample by drawing a CONSORT Flow Diagram.

CONSORT diagram was presented in the method section.

In the method section, mention the ethical considerations of the research. Considering that the research sample was children with ADHD, did the researchers get informed consent from their parents?

Regarding ethical considerations, some materials were added to the method section.

The research sample included 30 children with ADHD who were equally divided into two groups of 15 people. What formula was used to determine the sample size?

Determining the sample size was explained in the method section.

Mention the validity and reliability of the Integrated Visual and Auditory (IVA)-2 Continuous Performance Test in the method section.

The validity and reliability of the research tool was explained in the method section.

Talk more about other methods of analysis used in this research.

The data analysis section is complete.

Results:

In the results section, mention the demographic variables of children with hyperactivity. Were the intervention and control groups homogeneous in terms of these variables?

Demographic variables were reported in the results section.

Point out the p-values in the results section.

P-values were reported in the results section.

Discussion

In the discussion section, examine aligned and non-aligned studies.

In the discussion section, studies consistent with our findings were mentioned.

Based on the limitations of the study, make suggestions for future research.

Suggestions for future studies are presented in the discussion section.

Reviewer 2:

Title: Effects of a Computer-Based Intervention on Sustained Attention, Divided Attention, and Impulsivity in Children with Attention Deficit Hyperactivity Disorder: In this research, the authors compared the effects of a computer-based intervention (Captain's Log MindPower Builder) combined with Ritalin to those of Ritalin alone on sustained attention, divided attention, and impulsivity in children with attention deficit hyperactivity disorder (ADHD).

Comments:

1. What was the age range of the research sample?

The statistical population included all boys and girls aged 7 to 12 years old with ADHD

2. What software was used to analyze the data?

SPSS software v26 was used for data analysis.

3. For the results mentioned in the follow-up step, mention the p-value.

The p-value was reported for the follow-up period

4. Rewrite the keywords according to the mesh.

The keywords were adjusted according to the mesh.

5. Page 4, Line 43: “People with a higher body mass index (BMI) showed much lower cognitive control than other children with this disorder and with an optimal level of body mass.” Provide valid references for this content.

The reference of this content was added to the text.

6. Page 4, Line 49: According to Sibley et al. (14), 63% of these children may still exhibit some symptoms… Which children?

This sentence was corrected (children with ADHD)

7. Page 4, Line 52: Change ADH to ADHD.

It was corrected.

8. Page 4, Line 58: “Compared with their normal peers, children who suffer from this disorder or exhibit some of its symptoms face challenges at school such as disinterest in learning, a propensity to skip school, victimization by peers, and high expectations from parents.”: References?

The reference of this content was added to the text.

9. Page 4, Line 65: “There are no treatments that can completely eradicate ADHD symptoms.”: Delete this sentence.

It was corrected.

10. Write the objectives of the study in a separate section of the introduction.

Objectives of the study were written in a separate section.

11. Suffering from ADHD (based on DSM-5) was one of the inclusion criteria!

The inclusion criteria were modified.

12. The follow-up period in the method is not clear.

The follow-up period was mentioned in the method section (45-day follow-up).

13. In the method section, explain more about how to determine the sample size.

Determining the sample size was explained in the method section.

14. Mention the intervention program in the form of a separate section in the method section.

The intervention program was presented separately in Table 1.

15. Cite the reference for the intervention program in the method section.

The reference for the intervention program was mentioned in the method section.

16. Cite the reference for the Integrated Visual and Auditory (IVA)-2 Continuous Performance Test in the Method section.

The reference for the Integrated Visual and Auditory (IVA)-2 Continuous Performance Test was mentioned in the method section.

17. How did you evaluate the reliability of the tool used in this study?

The validity and reliability of the research tool was explained in the method section.

18. Page 7, Line 113: What was the level of significance for data analysis? Write it in the data analysis section.

The significance level of the research was considered to be $\alpha=0.05$.

19. In Table 4, mention the P-value correctly (0.03).

It was corrected.

20. Page 9, Line 151: “This finding indicates that the intervention based on Captain's Log MindPower Builder only had local effects.” What do you mean by local effects?

This sentence was corrected: “This finding indicates that the intervention based on Captain's Log MindPower Builder only had temporary effects.”

21. “Since the intervention group continued taking Ritalin similar to the waitlist control group, it is impossible to completely separate the observed effects from those of Ritalin.” Mention these contents in the limitations section.

It was corrected.

Best Regards

2 Revision 1

2 comments · 25 Sep 2023 – 25 Sep 2023

Associate Editor

ACCEPT 25 Sep 2023

Accept

Editor-in-Chief

ACCEPT 25 Sep 2023

Accept