

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Psychiatry*

**Manuscript NO:** 88545

**Title:** Nutritional epigenetics education improves diet and attitude of parents of children with autism or attention deficit/hyperactivity disorder

**Provenance and peer review:** Invited manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 05688164

**Position:** Peer Reviewer

**Academic degree:** BSc, MD, PhD

**Professional title:** Research Fellow

**Reviewer's Country/Territory:** Hungary

**Author's Country/Territory:** United States

**Manuscript submission date:** 2023-09-29

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2023-10-06 05:38

**Reviewer performed review:** 2023-10-10 10:56

**Review time:** 4 Days and 5 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

<b>Scientific significance of the conclusion in this manuscript</b>	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## SPECIFIC COMMENTS TO AUTHORS

10 October 2022 The review report on the manuscript, 'Efficacy of nutritional epigenetics tutorial on the diet of parents of children with autism or attention deficit/hyperactivity disorder' by Dufault RJ et al., submitted to World Journal of Psychiatry Manuscript ID: 88545 Dear Authors, This study titled 'Efficacy of nutritional epigenetics tutorial on the diet of parents of children with autism or attention deficit/hyperactivity disorder' investigates the effectiveness of a six-week nutritional epigenetics tutorial in improving the dietary behavior patterns and attitudes of parents with learning-disabled children, specifically those with autism or attention deficit/hyperactivity disorder (ADHD). The tutorial curriculum comprises a textbook and online modules, focusing on the role of diet in gene function, heavy metal exposures, and their potential impact on child health and behavior. The study utilized a semi-randomized control group pretest-posttest pilot design, with participants recruited from parents with learning-disabled children. The recruitment process prioritized parents with children exhibiting severe behavioral problems. Participants were assigned to either a test group (receiving the tutorial) or a control group. Results indicate that

parents in the test group significantly reduced their consumption of ultra-processed foods and increased their intake of whole and/or organic foods after completing the tutorial. Also, the tutorial led to a significant change in parental attitudes regarding their ability to control their child's behavior through diet. Finally, there was no significant change in dietary behavior among parents in the control group. The study highlights the potential of nutritional epigenetics instruction to facilitate healthy dietary changes in parents of learning-disabled children. These findings have implications for addressing the rising prevalence of learning disabilities, such as autism and ADHD, and the role of dietary factors, including heavy metal exposures, in their development. Future research could further investigate the impact of dietary changes on heavy metal exposures and gene expression in children with autism and ADHD. Additionally, the study underscores the importance of promoting healthier dietary habits among parents and families, especially in the context of rising ultra-processed food consumption among youth in the United States. In general, I think the idea of this article is really interesting, and the authors' fascinating observations on this timely topic may be of interest to the readers of the World Journal of Psychiatry. However, some comments, as well as some crucial evidence that should be included to support the author's argumentation, needed to be addressed to improve the quality of the manuscript, its adequacy, and its readability prior to its publication in the present form. My overall judgment is to publish this paper after the authors have carefully considered my suggestions below, in particular reshaping parts of the 'Introduction' and 'Methods' sections by adding more evidence. Here's my suggestion:

- The paper could benefit from improved clarity and organization. It might be helpful to structure the paper more clearly, with distinct sections for the introduction, methods, results, and discussion. Currently, the text flows between background information and methods, making it difficult to follow the structure of the study.
- Please present the concise, self-explanatory title stating the



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most important findings of this study. Suggestions: 'Nutritional Epigenetics Education Improves Parental Diet and Attitude in Six Weeks: A Study on Learning-Disabled Children with Autism or Attention Deficit Hyperactivity Disorder.' • The abstract should provide a concise summary of the study's key findings and conclusions. It should briefly mention the study's design, methods, and main results. As it stands, the abstract is missing important information, such as the study's primary outcome measures and key findings. That having said, I would like the authors to make as much effort for this section as for the rest of the manuscript. Please present the abstract in 200 words (preferably 200–220 words, max. 250) according to the guidelines of the journal, focusing on proportionally presenting the background, methods, results, and conclusion The background should include the general background (one to two sentences), the specific background (two to three sentences), and the current issue addressed to this study (one sentence), leading to the objectives. In this subsection, I would like the authors to lay out basic information, a problem statement, and their motivation to break off. The methods should clarify the authors' approach, such as study design and variables, to solve the problem and/or make progress on the problem. The results should close with a single sentence putting the results in more general context. The conclusion should open with one sentence describing the main result using such words like "Here we show", which should be followed by statements such as the potential and the advance this study has provided in the field and finally a broader perspective (two to three sentences) readily comprehensible to a scientist in any discipline. • I advise listing as many keywords allowed by the journal from Medical Subject Headings (MeSH) and use as many as possible in the title and in the first two sentences of the abstract. • The Introduction section provides a lot of background information, but it lacks a clear statement of the study's objectives and hypotheses. A more structured approach, where the background is presented first and followed by a clear statement of the study's objectives, would



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**https://**[www.wjgnet.com](http://www.wjgnet.com)

enhance clarity. Furthermore, I would suggest adding a brief discussion about the potential neural substrates or mechanisms underlying the relationship between heavy metal exposures, dietary habits, and learning disabilities in children, particularly autism and ADHD. This addition will provide a more comprehensive context for the study and help readers understand the biological basis for the research. Specifically, consider including information about how heavy metal exposures, such as lead and mercury, can affect neural development and function. Highlight any relevant studies or findings that link heavy metal exposure to alterations in brain structure or function, as this can help establish the biological plausibility of the study's hypotheses. Additionally, discuss the role of dietary factors in modulating neural substrates. For example, mention how certain nutrients or dietary patterns may influence neuroinflammation, oxidative stress, or neurotransmitter systems, all of which are relevant to neurodevelopmental disorders like autism and ADHD. By including a brief discussion of neural substrates, the introduction will provide a more comprehensive foundation for the study's focus on dietary interventions and their potential impact on child behavior and learning outcomes [1-4]. This will enhance the overall clarity and context of the research. • The Introduction section provides a lot of background information, but it lacks a clear statement of the study's objectives and hypotheses. Clarity would improve with a more organized approach that starts with the background and ends with a concise statement of the study's objectives. Furthermore, I would suggest adding a brief discussion about the potential neural substrates or mechanisms underlying the relationship between heavy metal exposures, dietary habits, and learning disabilities in children, particularly autism and ADHD. This addition will provide a more comprehensive context for the study and help readers understand the biological basis for the research. Specifically, consider including information about how heavy metal exposures, such as lead and mercury, can affect neural development and function. Highlight any relevant studies or

findings that link heavy metal exposure to alterations in brain structure or function, as this can help establish the biological plausibility of the study's hypotheses. Additionally, discuss the role of dietary factors in modulating neural substrates. For example, mention how certain nutrients or dietary patterns may influence neuroinflammation, oxidative stress, or neurotransmitter systems, all of which are relevant to neurodevelopmental disorders like autism and ADHD. By including a brief discussion of neural substrates, the introduction will provide a more comprehensive foundation for the study's focus on dietary interventions and their potential impact on child behavior and learning outcomes [1–4]. This will enhance the overall clarity and context of the research. • The methods presented in the study are generally clear and appear to be replicable. This section should open with a short introductory paragraph and cite more references to ensure the reliability and the integrity of evidence in the study design the authors build and the methodology they have decided to apply. The study population, recruitment process, measurements, and statistical analysis are well described. However, I have a few comments and suggestions: The section on curriculum and tutorial development lacks detailed information about the content covered in each module. It would be beneficial to provide an overview of the specific topics addressed to give readers a better understanding of the educational intervention. The explanation of the randomization process for assigning participants to the test and control groups could be more detailed. Readers may want to know the specific methods used to ensure randomization and the steps taken to minimize bias. While the methods mention the use of a survey to assess dietary habits, it would be helpful to provide more information about how the survey was developed, including any pilot testing or validation efforts. Additionally, specifying the types of questions used to measure dietary habits would improve clarity. • The section on data analysis lacks detail about the statistical methods used. Readers would benefit from a more comprehensive description of the statistical tests employed to

analyze the data. This should include information on the assumptions made and the significance level chosen. • The presentation of results could be improved by using tables and figures to summarize key findings. This would make it easier for readers to interpret the data. I recommend closing this section with a paragraph that puts the results into a more general context. • I would like the authors to fully expand this section with approximate 1500 words by opening with an introductory paragraph, followed by a synthesis of the previous sections. The discussion section should interpret the results in the context of the study's objectives and the existing literature. Therefore, I suggest discussing the implications of the study's findings. How might they inform future research or public health efforts? The authors should also consider addressing the limitations of the study, such as the relatively small sample size, potential biases in participant recruitment, and the self-reported nature of dietary data. • I believe that presenting the independent conclusion section with 150–200 words would benefit from a single paragraph without subheadings that presents some thoughtful and in-depth considerations by the authors as experts in order to convey the main message. The authors should make an effort to explain the theoretical implications as well as the translational application of their research. In order to understand the significance of this field, I believe it would be necessary to discuss theoretical and methodological avenues in need of refinement as well as future research directions. • Please cite more references: An original study like this typical cite more than 60–70 references. Overall, I believe that the manuscript may have the merit of providing valuable information on the efficacy of a six-week nutritional epigenetics tutorial in improving the dietary behavior patterns and attitudes of parents with a learning-disabled child with autism or ADHD. The study found that the tutorial was an effective tool because it provided parents with the instruction and information needed to reduce poor dietary habits and facilitate healthy dietary changes over a 6-week period. The parents who completed the tutorial



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significantly reduced their intake of highly processed foods, increased their intake of whole and/or organic foods, and changed their attitude about their ability to influence their child's behavior through diet. This information can be useful for healthcare professionals, educators, and parents who are interested in improving the dietary habits of children with autism or ADHD. I hope that, after careful revisions, the manuscript can meet the journal's high standards for publication. I declare no conflict of interest regarding this manuscript. Best regards, Reviewer

<https://doi.org/10.3390/biomedicines11030945>

1.  
2.

<https://doi.org/10.3390/brainsci13081197>

3.

<https://doi.org/10.3389/fnbeh.2023.1268156>

4.

<https://doi.org/10.3390/biomedicines11071819>

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**Name of journal:** *World Journal of Psychiatry*

**Manuscript NO:** 88545

**Title:** Nutritional epigenetics education improves diet and attitude of parents of children with autism or attention deficit/hyperactivity disorder

**Provenance and peer review:** Invited manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 00573592

**Position:** Peer Reviewer

**Academic degree:** PhD

**Professional title:** Senior Scientist

**Reviewer's Country/Territory:** Italy

**Author's Country/Territory:** United States

**Manuscript submission date:** 2023-09-29

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2023-10-13 08:10

**Reviewer performed review:** 2023-10-17 05:18

**Review time:** 3 Days and 21 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

<b>Scientific significance of the conclusion in this manuscript</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
<b>Language quality</b>	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## SPECIFIC COMMENTS TO AUTHORS

- It is notheworthy to consider that this study did not analyze any molecular biomarker, most paragraphs are putative.
- What is the choice of parents of ADHD and autism children ?
- In which way the post-intervention results affected the diets of the children?
- Were there some measurable outcomes ? (i.e. parents avoided processed foods in the children's diet?).
- Discussion should be more robust.

## RE-REVIEW REPORT OF REVISED MANUSCRIPT

**Name of journal:** *World Journal of Psychiatry*

**Manuscript NO:** 88545

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**Provenance and peer review:** Invited manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 05688164

**Position:** Peer Reviewer

**Academic degree:** BSc, MD, PhD

**Professional title:** Research Fellow

**Reviewer's Country/Territory:** Hungary

**Author's Country/Territory:** United States

**Manuscript submission date:** 2023-09-29

**Reviewer chosen by:** Jing-Jie Wang

**Reviewer accepted review:** 2023-11-15 06:41

**Reviewer performed review:** 2023-11-15 12:11

**Review time:** 5 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Peer-reviewer</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous



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statements

Conflicts-of-Interest: [ ] Yes [Y] No

#### **SPECIFIC COMMENTS TO AUTHORS**

15 November 2022 The 2nd review report on the manuscript, 'Efficacy of nutritional epigenetics tutorial on the diet of parents of children with autism or attention deficit/hyperactivity disorder' by Dufault RJ et al., submitted to World Journal of Psychiatry Manuscript ID: 88545 Dear Authors, I am pleased to see that the authors have addressed the issues I raised in the previous round. Currently, the manuscript is a well-written research paper with informative layouts that studies the potential of nutritional epigenetics instruction to facilitate healthy dietary changes in parents of learning-disabled children. These findings have implications for addressing the rising prevalence of learning disabilities, such as autism and attention deficit hyperactivity disorder, and the role of dietary factors, including heavy metal exposures, in their development. I believe the manuscript meets the journal's high standards for publication. I am looking forward to seeing more papers written by the same authors. Thank you! I declare no conflict of interest regarding this manuscript. Best regards, Reviewer

## RE-REVIEW REPORT OF REVISED MANUSCRIPT

**Name of journal:** *World Journal of Psychiatry*

**Manuscript NO:** 88545

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**Academic degree:** PhD

**Professional title:** Senior Scientist

**Reviewer's Country/Territory:** Italy

**Author's Country/Territory:** United States

**Manuscript submission date:** 2023-09-29

**Reviewer chosen by:** Jing-Jie Wang

**Reviewer accepted review:** 2023-11-15 07:22

**Reviewer performed review:** 2023-11-17 10:17

**Review time:** 2 Days and 2 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Peer-reviewer	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous



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statements

Conflicts-of-Interest: [ ] Yes [Y] No

#### **SPECIFIC COMMENTS TO AUTHORS**

It is clear that the authors made substantial efforts to improve their manuscript that indeed is now more suitable. However, taking also in account the limitations and bias now clearly stated, a concern still remains and need to be further addressed: if there are not outcomes pre- and post- intervention , how is possible to ensure reability of the results? In other words , why this nutritional model should be useful for parents of ASD or ADHD children and not for other pathologies or also for non-affected people? What is the link between ASD and the model if the effectiveness of the model has been applied only on parents, without any correlation with suffered individuals?