

# **Effects of core stability exercises on balance in Chinese children and youth with intellectual disabilities**

## **Introduction**

Old references and some aspects that are not necessary. I recommend the authors to resume the analysis of the specialized literature, especially those studies on subjects with intellectual disabilities.

Part of the information presented in the Discussion should be brought here, and other information closely related to the results and the central idea of the manuscript should be maintained or added there

## **Materials and methods**

L86 "aged 6-18 years;" ??!!! I don't understand!!!! Where does 18 years come from, as long as the values in table 1 do not indicate any subject close to 18 years old? The means in table 1 ( $11.83 \pm 1.25$  or  $12.18 \pm 1.19$ ) do not indicate that such an age existed, even if it had been just a selection criterion. I do not understand why the authors insisted on this selection criterion (why they presented it here) as long as the values, even for young people with disabilities, would have been extremely varied between 6 years and 18 years old anyway

L137-144 I think the authors need to detail more clearly what the balance testing procedures consisted of, in order to achieve the reproducibility requirement. After how many seconds from the start of the test is the test considered unsuccessful. Ok, it was supposed to hold for 60 seconds, but this duration is not specified, for what testing would it be: eyes open or eyes closed, on firm ground or on a foam surface? The description of the tests should be mentioned in full, not by referring to the specialized literature.

L146-165: nothing is specified about the time in which the subjects had to do the test, to complete it? How long did the testing last?

In the "Statistical analyses" section you used t test. Did you check the veracity of the values generated by the t test with the Levene F test? Especially since the number of subjects may suggest limited values.?

## **Results**

L184-190 is not the subject of discussion in the Results section, but presents details about Participants, so it should be removed from here and inserted in the Study design and participants section.

## **Discussion**

L215-217 are not discussions. These lines are not related to this section. The authors have already specified the purpose in both the abstract (L21-22) and the introduction (L75-79). I don't see why this purpose would be repeated here?

"The results indicated no statistically significant difference in demographic characteristics between the control and intervention group." – is not a discussion. This phrase could be inserted in the Results section, but not here.

And after L215-217 there is no way to appear a conclusion, like in L218-220 !!! For conclusions, there is a separate section called "Conclusions"!!!

L221-222 "Core stability exercises considerably improved static balance in children and youth with intellectual disability during OLS on a firm ground while their eyes were open." – reference is missing here, and this idea is already in the Introduction,

L223-233 – pure theory, which can be in the Introduction. But what are the discussions and the relationship of this information from L223-233 with the results of this study. The authors should discuss the data from their research and report it with similar or different data from other studies

L234-235 "Dynamic balance refers to the ability to react efficiently to the base of support displacement (Paillard, 2019)." – this sentence is just theory, not discussion. It has no place in this section unless it is developed and interpreted in direct relation to some data. It is just a theoretical delimitation of a concept, not a discussion

L251-273: Ditto the previous observations. Purely theoretical lines, which have no connection with the data in the Results section. I can't find the discussions!

I can't find the study limits. I recommend that authors present the limitations of the study.

I recommend that authors present the practical applications of their study

## Conclusion

The conclusions presented by the authors are far too general and not directly related to the statistical results and measurements. I recommend the authors to clarify this aspect and to focus on their data, to present one or two clear conclusions, directly related to the results of their tests and study.

## References

- The work Ghaeeni, Bahari & Khazaei, 2015 is cited a lot);
- The citation forms are not maintained the same throughout the manuscript. The same citation form and uniformity should be used throughout the manuscript
- Over 40% of the references are old. I strongly recommend a more recent approach to both the Introduction and Discussion sections
- I strongly recommend the articles below, all closely related to the central idea of this article and with real news to support the Introduction and Discussion sections, even to help authors clarify the procedure:

<https://doi.org/10.1123/pes.2024-0086>

<https://doi.org/10.1016/j.neulet.2024.137968>

<https://doi.org/10.3389/fneur.2024.1385286>

<https://doi.org/10.3390/healthcare12100995>

<https://doi.org/10.3390/sports12020058>

<https://doi.org/10.1123/pes.2023-0098>

<https://doi.org/10.3390/children10111810>

Meng, H-J, Luo, S-S, and Wang, Y-G. The interplay between cognitive tasks and vision for upright posture balance in adolescents. *PeerJ*. (2019) 7:e7693. doi: 10.7717/peerj.7693