RESPONSE TO THE REVIEWERS

Reviewer #2 Thank you for revising the manuscript. The issues are corrected as follows:

Minor points

1. Ethical content (lines 42 to 44) need not be presented in the abstract.

Thank you very much for this notation.

We removed the ethical citation from the text as per your recommendation.

2. – 3 .All statistic symbol 'p' must be written in italics. The same should be done in all cases presented below; The 'n' for the subject should be changed to italics.

Thank you very much for this notation.

The symbols "p" and "n" were cited in italics.

4. In line 142, the '-' representing the range of BMI is replaced with an 'a'. Please correct it. The comma would be changed a decimal point. And you must change the '2' in 'kg/m2' to the square (kg/m²). For example, (25,0 a 29,9 kg/m2) → (25.0 – 29.9 kg/m².

Thank you, the suggestions are highlighted in the inclusions criterias, page 5, line 2.

Major points

1. This study seems to have well-organized experimental procedures and methods, and the overall content of the article is very interesting. However, if the subjects of the study will be type 2 diabetes patients, it would be good to include blood sugar and HbA1c levels in the variables to be measured.

Thank you very much for this notation.

Unfortunately, in our country, research funding conditions have become scarce, so some biochemical criteria are not possible to carry out. What we will do is glycemic control with our own resources.

2. A full explanation of what low frequency WBV (16-26 Hz) means should be given. In addition, the meaning of the range of vibration of WBV, the intensity of vibration, and the frequency of vibration should be presented.

Thank you for this kind consideration, it is very important. It is now updated in page 8, the third paragraph.

3. The amount of discussion is rather small compared to the overall experimental content. If the volume is small because there are no results of the study, it is also necessary to explain the meaning of each variable that the authors want to see. And, there are many papers related to WBV so far. Readers will be able to better understand if these papers also include the study of WBV treatment in elderly and diabetic patients.

Thank you for this kind consideration, it is very important.

We agree that there is a considerable number of studies on WBV and strength training in a dissociated and combined way, however the studies are heterogeneous in several aspects.

Lines#47-50: for clarity it would be better if the two stages of the search were in the same sentence. Please rewrite.

Thank you, the suggestions are now highlighted in line 44.

Line#62: include point after (1)

Thank you, the suggestions are now highlighted in line 57.

Lines#78, 82, 83, etc: include space between words

Thank you, it is now corrected.

Line#93: cut “to date” and include after “however” “to our knowledge”

Thank you, the suggestions are now highlighted in line 94.

Reviewer #2 Thank you for revising the manuscript. The issues are corrected as follows:

1. In Introduction, the transition from the first paragraph to the second paragraph needs to be further improved, for example, how OST would lead to balance issues and falling risk.

Thank you for this kind consideration, it is very important. Lines 63-64.

2. In the fourth paragraph of the Introduction, the authors provided results from a Meta-analysis. I wonder if those studies were conducted in

community-dwelling older adults and how many were women, as these are relevant to your study population.

Thank you for this kind consideration. The study included community and institutionalized elderly of both sexes.

3. There is only one paragraph that talks about the effects of WBV and the results are very limited. Please provide more evidence of its effectiveness to better justify the importance of your proposed study.

Thank you for this kind consideration. It is now added in lines 87-89.

4. The purpose of this study is to examine the effects of the combination of WBV and MCT. It would be more appropriate to use "WBV combined with MCT" instead of "associated with".

Thank you for this kind consideration, it is very important and relevant. We changed the "association" term for the combined along all the manuscript. The modifications are highlighted.

5. In participant recruitment, there is a typo "ractice of physical exercise", which I assume should be "practice…" In (4) Not participating in other surveys, please clarify if it means not participating in other research studies.

Thank you for this kind observation. It is now corrected in line 131. In regard the second comment, we changed in lines 131-132.

6. In Page 4, please clarify who will perform the randomization.

Thank you for this reminder, it is very important. Lines 151-152.

7. In Figure 1, it would be better to provide the sample size as well as the pre- and post-assessments.

Thank you for this kind observation. However, we cannot assume a sample size because we will calculate based on the primary outcome as stated in lines 318-323.

8. It seems that this study will include many outcome assessments. I wonder if one examiner is enough.

Thank you for this kind observation. It is very important. We actually believe that three examiners can perform the assessments. Line 158.

9. On page 6 Line 196-205, that describes the WBV: "Participants must, at the time of vibration, for better fixation 201 of the feet on the board, perform the vibration with a silicone pad for the heels (made of 202 non-slip material), so that only the forefoot and midfoot are in direct contact with the 203 platform…", it would be better to include a figure for better illustration.

10. In 2.6.4. The authors mention the adherence. I wonder if you will measure the participants' adherence and fidelity to the intervention.

Thank you for this kind note. The adherence will be measured as stated in table 3.

11. In this study, the primary outcomes are the falls efficacy and quality of life. However, these are subjective measures. Indeed, the intervention itself focuses on resistance and balance training as shown in Table 01. Objective measures of strength and balance seem to be the direct outcomes that will reflect the training components. The improvement of falls efficacy and quality of life may be through the pathway of the improved balance and strength. From this point of view, I wonder if the primary and secondary outcomes need to be switched.

Thank you, this is an important consideration, however, this is a Due our country number of falls in the elderly and quality of life related to it, we believe that using the assessments for the risk of falls and quality of life will be sufficient to what we are aiming.

12. In this study protocol, is there a follow-up period to observe the "wash-out" or long-term effect of the intervention?

Thank you, this is an important observation, however, we do not have a wash-out period or long-term effects assessment because the aim of this study is to assess the short period effects.

13. Although this study includes an outcome of falls efficacy, I wonder why number of falls or fall rate are not included as the outcome variables.

Thank you, this is an important point. The sociodemographic questionnaire will indicate the frequency of falls.

14. The authors have included the sample size calculation, but the estimated sample size was not provided. Based on the power calculation, the desired sample size should have been achieved.

Thank you for this kind observation. We cleared in the text that the sample size will be calculated *a posteriori.* Line 320.

15. In the Discussion, the authors mentioned that they expect to see the decreased risk of falling and quality of life, but again these are subjective measures. Please consider my suggestion in comment #11 or provide a strong justification.

Thank you for point this out again. Our justification is in comment #11.

16. In the Limitations, are there any concerns on the safety of performing WBV and any adverse effects from the intervention?

Thank you very much for this observation. We do have these concerns. We highlighted in line 162 and in Table 3, in which we will collect adverse effects.