Author’s response to reviews

Title: Whole body vibration exercise improves functional parameters of individuals with metabolic syndrome: an exploratory study.

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Version: 1 Date: 12 Oct 2018

Reviewer reports:

Darryl J Cochrane (Reviewer 1): This is an interesting study and as the authors have noted as a limitation that there was no control group. Therefore, the title of the study may be changed to indicate that this is an exploratory study.
We thank and agree with the reviewer. We changed the title of the study to “Whole-body-vibration exercise improves functional parameters of individuals with metabolic syndrome: an exploratory study”.

We have also added modifications in the abstract, in line 166 and 439.

The current study provides new insights to using WBV for individuals with metabolic syndrome. The current WBV protocol is line with other studies have have investigated compromised health populations it would be interesting to know what the rationalization was in selecting 5 weeks, 10 sessions of WBV.

We agree, and we introduced the rationalize from the line 269 to 272.

The type of medications taken by participants warrants further explanation.

We agree, and we introduced the type of medications from the line 190 to 193.

In the discussion there is a lot of emphasis placed on why the tests were selected, this could be redirected to the methods section and for the discussion an explanation/speculation to the possible physiological reason(s) for an improvement in handgrip strength, flexibility, gait speed and sit-to-stand.

We agree, and we transferred some sentences about the tests from the discussion to Methods section.

Additionally, to determine that WBV was the casual parameter that elicited the changes in functional performance rather than the participants improved due to becoming familiar with the tests. Thus, it would be useful to report the reliability of the functional tests by indicating the intraclass coefficient and/or coefficient variation.

We agree, and we clarify about the coefficient variation used (Cohen’s d) in the lines 310 and 311.

Other comments

Throughout the manuscript "WBV exercises" please deleted exercises-------- We thank, we agree, and we did.

Pg 5

In 53 replacr might with can-------- We thank, we agree, and we did.

In56 replace 'Attention must be taken on like' with 'Other prescriptive factors of WBV include...' -------- We thank, we agree, and we did.
In 58 delete 'the'...peak acceleration .......... We thank, we agree, and we did.

pg 6

ln1-12 very long sentence, this needs to be rewritten .......... We thank, we agree, and we did.

ln 19 delete "The'...WBV .......... We thank, we agree, and we did.

ln 19-20 replace with the following '.....clinical conditions to our knowledge investigating MetS individuals is yet to be determined' .......... We thank, we agree, and we did.

ln 29-31 replace and with 'that can be complemented .....'Pg 7 .......... We thank, we agree, and we did.

Pg 7

ln1-2 This is a repeat from the previous paragraph, I suggest that it be deleted. .......... We thank, we agree, and we did.

ln 5 what do you mean by 'useful'? .......... We thank, we agree, and we changed.

ln 7 the abbreviations of the functional tests are confusing especially those with more than three letters i.e., DBTFF - could this be rewritten as trunk flexion (TF) and FTSTS - this could be rewritten as STS (sit to stand) .......... We thank, we agree, and we changed.

Pg 8

ln7 replace 'get' with 'determine' .......... We thank, we agree, and we did.

ln49 reword i.e., In an interview each participant was asked about.... .......... We thank, we agree, and we did.

Pg 9

ln7 replace 'done' with 'performed' .......... We thank, we agree, and we did.

ln31 replace 'in' with 'on' .......... We thank, we agree, and we did.

ln 36 replace 'better' with 'best' .......... We thank, we agree, and we did.

Pg 10

ln 2 delete 'of', replace 'considered' with recorded .......... We thank, we agree, and we did.

Ln 29 - how much rest was given between each of the functional tests? .......... We thank, we agree, and we clarified about it.
ln46 replace 'in' with 'over' ……… We thank, we agree, and we did.

ln50 - replace 'with' of ……… We thank, we agree, and we did.

Pg 11

ln19 replace 'same' with 'similar' ……… We thank, we agree, and we did.

ln27 replace 'was bare feet in a stand' with 'were barefooted in a standing..' ……… We thank, we agree, and we did.

ln34 replace 'put' with 'positioned' ……… We thank, we agree, and we did.

ln 41 what do you mean by 'one more was added'? ……… We thank, we agree, and we did.

ln49 replace 'to' with 'for' ……… We thank, we agree, and we did.

ln59 replace 'done' with 'calculated' ……… We thank, we agree, and we did.

Pg 12

ln2 replace 'due to WBV exercise' with 'from WBV.' ……… We thank, we agree, and we did.

ln34 spelling enrolment ……… We thank, we agree, and we corrected.

Table 1 insert brackets i.e., (percentage) ……… We thank, we agree, and we did.

Pg 13

ln45-50 - rewrite this sentence ……… We thank, we agree, and we rewritten.

Pg 14

ln52 'whole body vibration exercises' replace with 'WBV' ……… We thank, we agree, and we did.

Pg 15

ln34 replace 'would' with 'can' ……… We thank, we agree, and we did.

ln 44-46 - this could be deleted - see previous comment about expanding on what the physiological underpinning may be causing the improvement in handgrip. ……… We thank, we agree, and we did.

Pg 16
In 1-2 needs rewriting. …….. We thank, we agree, and we rewritten.

Pg 17

In 2 replace 'would' with 'could' …….. We thank, we agree, and we did.

In 34 delete 'So, one may say that' replace with Thus, the metabolic...' We thank, we agree, and we did.

In 39 replace 'might be' with 'could be' …….. We thank, we agree, and we did.

ln44 replace 'Putting together' with 'Therefore...' …….. We thank, we agree, and we did.

Pg 18

ln5 delete 'the WBV exercise' with 'WBV …….. We thank, we agree, and we did.'

Ln 17 delete 'some confounders, that may affect replace with ' Firstly, ...' …….. We thank, we agree, and we did.

In 22 'properly investigated' replace with "controlled for" …….. We thank, we agree, and we did.

In 22 Secondly, no long-term...' …….. We thank, we agree, and we did.

In 24 Thirdly, this study... …….. We thank, we agree, and we rewritten following your suggestion about “exploratory study”.

In 27 Finally, the external.... …….. We thank, we agree, and we did.

ln 31 replace 'is' with 'was' …….. We thank, we agree, and we did.

In 56 replace 'aid in the' with 'gaining new' …….. We thank, we agree, and we did.

Reviewer 2 (Reviewer 2): PEER REVIEWER COMMENTS: To view the full report from the academic peer reviewer, please see the attached file.

REVIEWER COMMENTS FROM REPORT: The study design is not able to answer the aim of the study because of lacking a control group. …….. We thank and we agree. We changed the approach about the type of the study for “an exploratory study” as it was suggested by the other reviewer. In this case, it is not necessary to consider a control group (in this type of the study). The authors have described the intervention relatively well........... We thank, we agree and we tried to improve the description of the intervention following all the suggestions of the both reviewers.
There is an inability to control a major confounder (physical activity performed outside of the exercise program) and insufficient study design (no control group). ……… We thank and we agree. We changed the approach about the type of the study for “an exploratory study” as it was suggested by the other reviewer. In this case, it is not necessary to consider a control group (in this type of the study).

REQUESTED REVISIONS:

1. The authors need to add a control group to compare with the whole body vibration exercise group. ……… We thank and we agree. We changed the approach about the type of the study for “an exploratory study” as it was suggested by the other reviewer. In this case, it is not necessary to consider a control group (in this type of the study).

2. Outside physical activity data need to be collected so that this confounder can be controlled during the analysis. Primary outcomes - functionality need to be measured the same way before and after the exercise to reduce the measurement error. ……… We thank, we agree and we did the modifications following the suggestions of this reviewer.

If improvements to the English language within your manuscript have been requested, you should have your manuscript reviewed by someone who is fluent in English. If you would like professional help in revising this manuscript, you can use any reputable English language editing service. We can recommend our affiliates Peerwith for help with English usage (https://bmc.peerwith.com/bend/language-editing). Please note that use of an editing service is neither a requirement nor a guarantee of publication. Free assistance is available from our English language tutorial (https://www.springer.com/gb/authors-editors/authorandreviewertutorials/writinginenglish) and our Writing resources (http://www.biomedcentral.com/getpublished/writing-resources). These cover common mistakes that occur when writing in English.

……… We thank and we agree. A colleague from the USA has reviewed the English language of this manuscript.