OPEN PEER REVIEW

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An "Open Peer Review" process is making the details of all review process (including reviewers, associate editors, and EICs comments) as "Public" as it is agreed by EIC, Authors, and reviewers.

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- Prevents reviewers from following their individual agendas and leading to the detection of reviewers' conflicts of interests

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https://sites.kowsarpub.com/kowsar/knowledgebase/category/tree.html#opr.html

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Peer Review Report for "Effect of 4 -Week HICTBW Training on Cardiorespiratory Fitness in Sedentary Women"

Author(s): Amornpan Ajjimaporn, Chutimon Khemtong , Waree Widjaja

Review Timeline:

Submit Date: 1 Dec 2018
Revised Date: 17 Jul 2019
Accepted Date: 4 Sep 2019

Revision (0)

Here you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

Michinari Hieda: Reviewer | Revision (0)

19 Feb 2019

The authors investigated the impact of 4-week of high-intensity circuit training using body weight (HICTBW) on body composition and exercise capacity in sedentary young women. There were also no differences in any body composition parameters at the end of the 4-week program between the two groups. However, exercise capacity after 4-week of HICTBW was significantly increased in the exercise group. In conclusion, the authors demonstrated that 4-week HICTBW program was sufficient to improve exercise capacity. I think a great deal of the material covered in the current paper has been addressed in prior publications and should be condensed. A major revision of the manuscript is needed before it can be accepted for publication.

Major

1. I understand that the effects of a shorter duration, i.e., 4 weeks, HICTBW training program on cardiorespiratory fitness and body composition have not been studied. However, why did the authors focus on just healthy sedentary women, but not in men and women. Please, give us your rational reasons why focused on the limited population and more information about sex difference in the response to the exercise training in the background.
2. Please, explain the reasons why the authors choice the participant' target age-range in this study.

3. Statistical analysis in this study was not correct. Please, use a repeated-measured 2-way ANOVA for this statistical analysis with post-hoc analysis.

Minor

1. It appears that the English check of the present version has been done by a person not familiar with the contents, and there are numerous sentences that are grammatically correct, but have awkward meaning.
2. Please, spell out of HICTBW in the abstract. And, please keep consistence word: HICTBW or HICTBW in the body.
3. The picture of body weight poses in the HICTBW program was very nice. Please add the instruction in detail in Figure 1.
4. In all figure, please disclose p value of a repeated-measured 2-way ANOVA, and then please show the post-hoc analysis p values, if the interaction p value is significantly difference.
5. Was there not standard deviation in Figure1A?

REFEREE: Reviewer | **Revision** (0) 20 Feb 2019

Dear authors,
I am not happy with your study design, as you have evaluated the effects of HICT on a sedentary group of women and in my view, as they were sedentary, so any kind of exercise could be effective. There is only a control group who did not do any exercise and it is not an acceptable design for this purpose.
In addition, I can not see any novelty in your work.
Unfortunately my decision is reject.

REFEREE: Reviewer | **Revision** (0) 23 Feb 2019

This manuscript needs minor revision.
Title: Effect of 4 –week training on cardiorespiratory fitness in
sedentary women
This study aims to evaluate the effects of 4-week of high-intensity circuit training on body composition and cardiorespiratory fitness parameters in sedentary women. The results indicated that high-intensity circuit training cardiorespiratory fitness parameters but had no effect on body composition or weight loss in sedentary women.
Relevant topic nevertheless, some points should be improved

Background
Please provide more reasons about the logic of conducting this study.

Methods
Please omit this definition of sedentary individuals "All recruited participants exercised < 2 days per week".

Design and test procedure
Please replace the terms used "trained (TNW) and untrained (CNW) groups" with a more

suitable term.

Please provide more information and details about "submaximal 6-minute Astrand-Rhyming protocol".
Please provide information about the reasons you selected this training protocol among other protocols.

Please describe the logic of choosing this targets" 60% maximum heart rate (HRmax) in the 1st week, 26 min and 66% HRmax in the 2nd and 3rd weeks, and 34 minutes and 68% HRmax in the 4th week".

Result
Please provide information about all within and between group differences in a separated table.
In table 2 please provide information about P. values.
Please provide more detailed information about heart rate changes in results part.

REFEREE: Associate Editor | **Revision** (0) 6 Apr 2019

Dear Dr. Amornpan Ajjimaporn,

Thank you for submitting your manuscript to AsJSM for consideration of publication. The first round of peer review of your manuscript is complete. There are comments and suggestions from three peer reviewers embedded in this letter (see below). Overall, the subject of this paper is interesting and relevant to the readership of this journal. However, there are a variety of issues that will require the authors' attention and revision prior to offering a final editorial decision. At this time, your manuscript is not yet acceptable for publication and needs major revision.

If you feel that you can suitably address the reviewers' concern, then I invite you to revise and resubmit your manuscript.

Please carefully address all of the issues raised in the comments.

If you are submitting a revised manuscript, please also:
a) provide a separate Word document outlining each change made (point by point) as raised in the reviewer comments
AND/OR
b) provide a suitable rebuttal to each reviewer comment not addressed in revision.

To submit your revision, please go to http://asjsm.com

I look forward to receiving your revised manuscript.

Sincerely,

OPEN PEER REVIEW

Revision (1)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

ANSWERS TO REVIEWERS

We thank the reviewers for their interest in our work and for helpful comments that will greatly improve the manuscript and we have tried to do our best to respond to the points raised.

In the following answers, all reviewers' comments are in black, and our answers are in red.

Best Regards

Anonymous Referee #1

This manuscript needs minor revision. Title: Effect of 4 –week training on cardiorespiratory fitness in sedentary women. This study aims to **evaluate the effects of 4-week of high-intensity circuit training on body composition and cardiorespiratory fitness parameters in sedentary women.** The results indicated that high-intensity circuit training cardiorespiratory fitness parameters but had no effect on body composition or weight loss in sedentary women. Relevant topic nevertheless, some points should be improved

Background:

C1: Please provide more reasons about the logic of conducting this study.

A1: Thank you for pointing this out; we have amended the text for more detailed information as your suggestion in the background part.

Methods:

C2: Please omit this definition of sedentary individuals "All recruited participants exercised < 2 days per week".

A2: Thank you for remark; We omit "< 2 days per week" as your suggestion.

Design and test procedure

C3: Please replace the terms used "trained (TNW) and untrained (CNW) groups" with a more suitable term.

A3: Thank you for suggestion; We replaced the terms used "trained (TNW) and untrained (CNW) groups" with "trained (**TG**) and untrained (**CG**) groups".

C4: Please provide more information and details about "submaximal 6-minute Astrand-Rhyming protocol".

A4: Thank you for pointing this out; we have now added more information based on your suggestion.

C5: Please provide information about the reasons you selected this training protocol among other protocols.

A5: we have provided information about the reasons to choose this training protocol among other protocols and wrote into the background part.

C6: Please describe the logic of choosing this targets" 60% maximum heart rate (HRmax) in the 1st week, 26 min and 66% HRmax in the 2nd and 3rd weeks, and 34 minutes and 68% HRmax in the 4th week".

A6: Thank you for pointing this out; we have deleted that sentence and now added more information (shown in Table 1) based on your suggestion.

“The HICTBW program was comprised of 5-minute warm-up exercise, main menu of HICTBW program and 5-minute cool-down exercise. The total training duration and exercise intensities are shown in Table 1. The percentage of maximum heart rate (%HRmax) was calculated by dividing the maximal heart rate during exercise with the age-predicted maximal heart rate and multiplying by 100. Levels of exercise intensity for the %HR max are as follows: very light = <57, light =57-63 and moderate =64-76.”

Result:

C7: Please provide information about all within and between group differences in a separated table.

In table 2 please provide information about P. values.

A7: Thank you for your suggestion; we have changed the statistical analysis to be repeated-measured 2-way ANOVA and provided Table 3 for the information.

C8: Please provide more detailed information about heart rate changes in results part.

A8: Thank you; we have amended the text for more detailed information about the cardiorespiratory changes in results part.

Anonymous Referee #3

The authors investigated the impact of 4-week of high-intensity circuit training using body weight (HICTBW) on body composition and exercise capacity in sedentary young women. There were also no differences in any body composition parameters at the end of the 4-week program between the two groups. However, exercise capacity after 4-week of HICTBW was significantly increased in the exercise group. In conclusion, the authors demonstrated that 4-week HICTBW program was sufficient to improve exercise capacity. I think a great deal of the material covered in the current paper has been addressed in prior publications and should be condensed. A major revision of the manuscript is needed before it can be accepted for publication.

Major

C 1. I understand that the effects of a shorter duration, i.e., 4 weeks, HICTBW training program on cardiorespiratory fitness and body composition have not been studied. However, why did the authors focus on just healthy sedentary women, but not in men and women. Please, give us your rational reasons why focused on the limited population and more information about sex difference in the response to the exercise training in the background.

C 2. Please, explain the reasons why the authors choice the participant' target age-range in this study.

A1 and A2: Thank you for pointing this out; we have amended the text and give more information why we focused on this population as well as the participant' target age-range in the background part.

C 3. Statistical analysis in this study was not correct. Please, use a repeated-measured 2-way ANOVA for this statistical analysis with post-hoc analysis.

A3: Thank you; we have changed the statistical analysis to be repeated-measured 2-way ANOVA as your suggestion.

Minor

1. It appears that the English check of the present version has been done by a person not familiar with the contents, and there are numerous sentences that are grammatically correct, but have awkward meaning.

A1: Thank you for your suggestion. The revised manuscript was edited again by Prof. Mark Willems and Dr. Christopher Mawhinney who is a native English-speaking colleague.

2. Please, spell out of HICTBW in the abstract. And, please keep consistence word: HICTBW or HICTBW in the body.

A2: Thank you for pointing this out; we corrected and kept consistence word "HICTBW" throughout the manuscript.

3. The picture of body weight poses in the HICTBW program was very nice. Please add the instruction in detail in Figure 1.

A3: Thank you; we have now added more information in Fig.1 as your suggestion.

4. In all figure, please disclose p value of a repeated-measured 2-way ANOVA, and then please show the post-hoc analysis p values, if the interaction p value is significantly difference.

A4: Thank you; we have amended and added the text for more detailed information about a repeated-measured 2-way ANOVA of the cardiorespiratory parameters as shown in Fig. 2 and in results part.

5. Was there not standard deviation in Figure1A?

A5: Thank you for pointing this out; Since our participants in the both groups had the same workload values (1 Kp) at the starting point, so there were no SD at 0-week in Figure2D.

OPEN PEER REVIEW

Revision (1)

Here you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (1) 13 Aug 2019

I appreciate the changes and revised vision and hopefully your valuable manuscript has achieved the criteria to be accepted for publication.
regards.