Author’s response to reviews

Title: Validity of simplified, calibration-less exercise intensity measurement using resting heart rate during sleep: A method-comparison study with respiratory gas analysis

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Author’s response to reviews:

Dr. Gabriel Trajano
Editor
BMC Sports Science, Medicine and Rehabilitation

Dear Dr. Gabriel Trajano,

Please find attached a revised version of our manuscript entitled "Validity of simplified, calibration-less exercise intensity measurement using resting heart rate during sleep: A method-comparison study with respiratory gas analysis" (SSMR-D-19-00035), which we would like to resubmit for publication in BMC Sports Science, Medicine and Rehabilitation.
We appreciate the reviewer for their insightful comment. Please find our response to the reviewers’ comment below.

Additions/Revisions in the revised manuscript are indicated by yellow highlights. We hope that the revision and response are satisfactory and that our manuscript is now suitable for publication in BMC Sports Science, Medicine and Rehabilitation.

We look forward to hearing from you.

Yours sincerely,

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The response to reviewer’s comment

The comments from reviewer #1

Comment :
Page 4 Lines 10 - 18: could you please revise this section for clarity. Although I understand the point that the authors are making, it is quite difficult to read and requires restructuring/wording.

Response:
Thank you for this comment. We have edited the text as follows, to improve clarity.
If %HRR with the HR measured during sleep considered as the resting HR is validated, extra efforts taken to accurately measure the resting HR may not be necessary; thus, daily measurement of exercise intensity would be more feasible in the daily clinic. Additionally, this may further enable the 24/7 measurement of exercise intensity.

One of the major effects of exercise is the improvement of fitness, which is linked with the amount of exercise and exercise intensity [21, 22]. To increase the amount of exercise and exercise intensity on a daily basis, not only the scheduled exercise, but also the daily activities other than the scheduled exercise, should be increased. Therefore, continuous monitoring of the activities may be of great significance. If the activities could be measured 24 hours a day every day, it would be easier to find a critical and effective solution to increase the amount and intensity of exercise on a daily basis, which will contribute to improve the fitness of the individuals.