Reviewer’s report

Title: Altered regional gray matter volume in Chinese female patients with bulimia nervosa

Version: 1 Date: 20 Nov 2019

Reviewer: Rahil Mehrizi

Reviewer's report:

The researchers have proposed a method to evaluate the effect of shoulder immobilization on the daily activity. The study demonstrates significant reduction in activity levels by wearing shoulder joint orthosis.

- In order to simulate the shoulder immobilization, joint orthosis is used. However, it is not clear how accurate this simulation is. In order to have a better understanding, the method should be applied on real patients after shoulder surgery.

- The participants were asked to wear the orthosis for 10 hours on two consecutive days. I believe in order to have a more comprehensive study and results that can be generalized, the time frame should increase. Because the daily activity might come back to normal after the patient/participant gets used to his/her new body situation.

- Results: "In the measurement period with the shoulder orthosis, 5501.2 ± 2580.94 totcyc is significantly less than in the second measurement period without the shoulder orthosis"

Did you incorporate the participant's life style (based on the questioner) or gender for the t-test? In other words, did you use a one-way t-test or two-way? Please clarify it.

- The bar plots only show the average of the totcyc with and without shoulder orthosis. Please add sd to these plots. Is the activity level reduction varies across the subjects significantly?

- Overall I think the paper is well-written, however; it needs more proofreading.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:
Needs some language corrections before being published

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