Reviewer's report

Title: Association of objectively measured physical activity with body components in European adolescents. The HELENA cross-sectional study

Version: 2 Date: 7 June 2013

Reviewer: Lisa Phillips

Reviewer's report:

Thank you for addressing the original revisions provided. There are a few discretionary revisions that the authors may wish to make.

Discretionary revisions:

The additional information provided in the abstract background is useful, however the wording using could be altered to make it clearer. This was addressed in the main body of text in response to the original revisions, yet has not been addressed in the abstract. The original wording of 'to better understand the specific associations of PA with the different body's components such as fat mass and muscle mass are of interest' needs to be reworded.

Intro, paragraph 3, 'when aim was weight loss' could read 'when the aim was weight loss'

Paragraph 4 'thus, to control... clarified' could read 'Thus, controlling for important confounders such as socioeconomic status is necessary when assessing the relationship between PA, fat mass and muscle mass independently'

Paragraph 12: FAS paragraph. change 'being ranged from 0 to 8' to 'ranging from 0 to 8'

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests