Reviewer’s report

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

Version: 1 Date: 3 May 2013

Reviewer: Carlos M Arango

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Minor Essential Revisions
In general, I found the paper to be relevant to public health. The manuscript is well written and the results are interesting. However, I would suggest a couple of minor changes in order to enhance the paper:

1. The methods section could be improved if provides information about reproducibility and/or validity of used instruments.
2. It will be important to discuss about the external validity of the study (generalizability). Please address this issue in the discussion.
3. Although FFM may be considered as a marker of muscle mass, the way how it was measured leads to another limitation of the study because FFM also includes bone and residual mass. Please address this in the limitations paragraph.

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