Reviewer’s report

Title: Objectively determined physical activity levels of primary school children in south-west Germany

Version: 2 Date: 24 July 2013

Reviewer: Ursina Meyer

Reviewer’s report:

The authors addressed the majority of my concerns; however, there remain a few outstanding issues.

Major compulsory revisions

- Methods; Study population: The description of the study sample selection is much better now! I would suggest to provide the information about how the measured children differed from the whole study sample in a paragraph at the beginning of the Results part instead of the Methods part (thus, after the measurements have been introduced). And also, if available, it would be interesting if the children of your study differed from the whole study population in regard of (subjectively assessed) PA behaviour (if the data are available). This would maybe help to interpret your data.

- Methods; Physical activity measurements: If I understood well, the data of a child wearing the accelerometer over 10h on a certain day were extrapolated to 24h, irrespective whether the “wearing hours” were during day or during night. Is this correct? For how many days such an extrapolation was applied? In this context, it would be good to know if there were differences in the wearing time between boys and girls, first and second grade, and between overweight and normal weight children.

Minor essential revisions

- Abstract: The aim of the study could be improved by adding the information that the study used objective assessment tools.

- Statistical analysis: You mentioned that underweight children were excluded from analysis. How many underweight children had to be excluded? Are they included in the n=318?

Discretionary revisions

- Abstract; Methods: I would suggest to add the % of the whole cohort after “…were obtained in a sub-cohort of 384 primary school children (xx % of the whole cohort)”
- Methods; Physical activity measurement: Is there no possibility to exclude sleeping time, or at least night time (i.e. time between 8pm and 7am) from the analyses?

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

**Quality of written English:** Needs some language corrections before being published

**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.