Reviewer's report

Title: Correlates of objectively assessed physical activity and sedentary time in children: a cross-sectional study (The European Youth Heart Study)

Version: 1 Date: 8 March 2009

Reviewer: Trish Gorely

Reviewer's report:

Discretionary Revisions
none

Minor Essential Revisions
Introduction
1 para 1 line 6 PA tracks...
2 para 1 line 6 ...through adolescence...
3 para 1 final sentence I find this sentence very difficult to follow... is something like the following what you were meaning? Therefore, actions to promote healthy lifestyles in youth, including increased levels of PA and decreased sedentary behaviours, are likely to influence not only health in childhood but also the establishment of a long-term physically active lifestyle.
4 para 2 3rd sentence Nevertheless, it appears that a relatively substantial proportion of children do not accumulate 60 daily minutes of daily MVPA
5 Para 2 final sentence I think this sentence needs softening as much correlates work is cross-sectional. Perhaps something like: Identifying behavioural correlates of physical activity may suggest appropriate targets for change within future interventions aimed at increasing physical activity in young people.
6 Para 3 sentence 1 represents
7 Para 3 sentence 2 ...amount of time spent daily at in MVPA...the current 60-minute a day recommendation.
8 Para 4 merge with para 3. In contrast, opposite, sedentary...computer use have been shown to indicated to be positively...
9 Para 5 sentence 1 ...evaluating the influences...
10 Para 5 sentence 2 ...intermittent episodes of PA of with short durations and...
11 Para 6 ...assessed time in of MVPA...

Methods
12 Subjects: sentence 2 ...strength and interactions between...

Subjects: sentence 6 All Danish children were excluded from the current analysis since self-reported data on frequency of in outdoor play
13 Subjects Please include p-values for the comment that there were no differences in height etc
14 Subjects Who approved the study locally?
15 Assessment of PA: sentence 3 ...when administering to a large population...
16 Assessment of PA: sentence 7 After downloading...
17 Assessment of PA: sentence 11 & 12 Time in moderate-to-vigorous PA...
18 Self-reported measures: sentence 3 ...was available at all times...
19 Self-reported measures: para 2 sentence 1 ...and walking (active) were included in the analysis since vertical accelerometer will most likely...

Results The description of the sample (age, height etc) would be better presented in a table.
20 Paragraph 2 So what were the actual gender differences – did boys do more or less of TV viewing etc
21 Analysis of associations Could you please report the data that goes with these associations. What measure of effect size is reported and how should it be interpreted?

Discussion
22 Para 1 sentence 1 & 4 ...time in MVPA
23 Para 1 sentence 4 ...do not directly influence on time spent...
24 Para 2 sentence 2 ...is more influential on PA...
25 Para 2 sentence 6 A shift in choice of from unstructured...
26 Para 3 sentence 1 ...influence from of participation...in the present study...
27 Para 4 sentence 1 ...commuting to be between 5 and to 24 minutes...
28 Para 6 sentence 7 Rather, The lack of
29 Para 7 sentence 1 ...time in MVPA
30 Para 7 final sentence I'm not sure what you mean by non-differential misclassifications.
..dilution of the true effect magnitude related to...

Conclusions
31 Sentence 4 and 5 ...time in MVPA

Major Compulsory Revisions
Introduction
1 Para 4 What is the evidence that excessive media use displaces more active pursuits? The reference used does not seem to be the most appropriate or necessarily reflective of the evidence.
2 Para 5 More explanation is needed around your point to do with self-report
instruments. Yes, intermittent bursts may not be captured by self-report, but I am not convinced that self-report limits detailed descriptions on PA behaviours in children – with self-report we gain a sense of the major behaviours they engage in, with accelerometers we perhaps better reflect total movement more accurately but we don’t have detail about what they are actually are doing. Overall the rationale needs greater clarity.

Discussion

3 Para 4 Active commuting may not increase daily MVPA but do we want to dismiss it? Might there not also be some benefit from participating in light level PA? Might active commuting in youth set a habit for later life?

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