Author's response to reviews

Title: A cross-sectional examination of school characteristics associated with overweight and obesity among grade 1 to 4 students

Authors:

Scott T Leatherdale (sleather@uwaterloo.ca)

Version: 3 Date: 4 July 2013

Author's response to reviews:

In the revised manuscript I have included a new table with the results of the univariate analyses between the school-level physical activity policy characteristics and overweight. The univariate results for the school-level physical activity policy characteristics and obesity are not necessary since there was no significant between school variability in obesity identified (i.e., nothing to explain with the school-level characteristics).

I disagree with the reviewer that the data on student-level preferences are not important. They provide a valuable and new contribution to the literature and there is nothing wrong with including them in this multi-level model as they do not take away from our understanding of the school-level factors as the student preferences included explain student-level variability, not the school-level variability.

I can not examine the association of these school-level characteristics to physical activity as suggested by the reviewer as those analyses have already been performed and published (Leatherdale ST: School characteristics associated with physical activity among grade 1-4 students. Am J Health Behav 2014, 38:200-207). This recently published manuscript (accepted and final proofs completed 2 weeks ago), has now been cited in this revision.

Although this reviewer feels this manuscript is of limited interest, I strongly disagree for the following 2 reasons:

1) there is very little research available examining overweight and obesity among children of this age. It is a very difficult age group to collect data from within school-based studies. Given that this paper is based on objective outcomes measures, and data collected from students and their parents in this young age group, the quality of these data is about as robust as you can get for children of this demographic.

2) Considering that few researchers have data linking school PA policies and the built environment to youth overweight and obesity (especially among grade 1 to 4 students), this study provides a unique new contribution to the literature by being the first to simultaneously examine how school characteristics (both the school PA policy environment and the built environment surrounding a school) were
associated with overweight and obesity among children in grades 1 to 4. Any future research among this age group examining obesity will need to consider this manuscript as a foundational study.