Reviewer’s report

Title: A cross-sectional examination of the association between school policies and the built environment surrounding a school on overweight and obesity among grade 1 to 4 students

Version: 1 Date: 8 March 2013

Reviewer: Flo Harrison

Reviewer’s report:

This paper has some potential, but I do not feel that the reader is provided with enough information about the study’s methods to really judge it’s use.

Major Compulsory Revisions:

(apologies that this section is not numbered, it really details one big issue)

Given that the aim of the paper, as stated in the abstract (though not explicitly in the paper itself) is ‘to examine if school-based physical activity policies and the built environment surrounding a school are associated with weight status among children’, I would like much more information on the how school policies were measured, and the types of environments that participating schools were set in.

Policy data were collected by the ‘Healthy School Planner (HSP)’, but the paper gives no information about what this covers. The only policies mentioned are the two found to be significantly associated with overweight. We need to know what other polices were included, but were not found to be associated. I would like to see a summary of the HSP methodology, and a table outlining the ‘HSP indicators’ at the participating schools. This table could also include the summary of the built environment measures, which is presently only included in the text.

In addition to the school characteristics, which are the main focus of the study, several measures of the child’s preference for PA are also included, and in fact, seem to dominate the results. Given that these measures are co-variates in you model, and not the main focus of analysis, it might be helpful to reduce the number of individual measures included, or to use a composite measure for overall PA preference if possible.

Other compulsory revisions:

Introduction

1) The last sentence of the second paragraph (“Considering PA and sedentary behaviour appear to play important roles…” is confusing, and not really relevant.

2) Please state study aim(s) at the end of the introduction

Methods
3) The ‘Procedure’ section reads like an overview of the methods, and is largely repeated elsewhere. This could be greatly shortened allowing additional words for expanded description of HSP.

4) The first sentence of the “Student-Level Measures – Parent Reports” section is a bit of an overstatement. Parental reports of children’s PA are not so reliable, and the reference you use actually looks at parental reports of time spent outdoors as a proxy measure of activity in pre-school children. please revise or remove this sentence.

5) The questions presented in the “Student-Level Measures – Student Reports” section would be clearer in bullet points.

6) In the “School-Level Built Environment Characteristics” section, please give an example of a ‘variety store’ – what types of foods do these sell?

7) Much more detail is needed in the data analysis section. What are the three steps in the modelling procedure? What co-variates were included?

Discussion

8) The fourth paragraph of the discussion (built environment) seems to suggest that the authors did not expect to find an association between school neighbourhood measures and overweight/obesity, and begs the question why home neighbourhoods were not considered given they might be more important.

9) The fifth and sixth paragraphs are not really relevant to the stated aim of this study, and seems really to reiterate the authors previous findings. This space could be used to discuss school policies that were not seen to be associated with overweight/obesity, and why that might be.

10) The limitations are a little confusing. Isn’t the aim of the HSP to identify school based programs and interventions in place at the schools? The point about diet related policies/facilities is also important and could be given greater space in the discussion.

Discretionary revisions.

1) Did you consider looking at interactions between school policies/built environment measures and grade? This might provide some insight into when to target policies, or how the impact children of different ages.

**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