Reviewer's report

Title: Association between physical activities and school records in Korean adolescent students

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Reviewer: Marsha Dowda

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Associations between physical activities and school records in Korean adolescent students

The purpose of this study was to determine whether PA is related to school records in the case of Korean adolescent students.

This is a good idea and would add to the literature because of the unique population. However there are some series as well as some minor problems as listed below.

Major

Background, Page 3.

1) It is critical for the author to present a definition of school records. This definition needs to represent exactly what it would have meant to the Korean adolescent student who completed the item. In the 3rd paragraph the authors mention school achievements and records of adolescent students. How does school achievement and records differ? Are school conduct and school attendance also being considered?

2) The authors state that there is no epidemiological evidence in clinical practice that indicates that there is an association between PA and school records. But, there is a body of literature about the relationship between students school achievement and physical activity and fitness.

For example:


Methods

Page 4

3). Characteristics-(Table 1), how were height and weight obtained? Also mentioned should be made on the calculation of BMI.

4). Frequency distributions of the PA levels and academic achievement
percentages could be presented in a table. Perhaps this information could be presented by grade.

5). Independent variables—here self-reported school records is listed as an independent variable. It seems that school records should be the dependent variable in the analyses.

Page 5

6). Dependent variables—PA variables should be the independent variables in the analyses.

Page 6 Data analyses

7). Were sampling weights and complex sampling design incorporated in data analyses?

8). It seems that either age or grade should be considered as well in the analyses, since it is known that PA usually declines with age.

Page 6 Results and Table 2.

9). It seems that actually the dependent variable was school records. This really needs to clear.

3).

Minor

Page 4 Private information—perhaps another term could be used? Perhaps identifiers is what is meant here.

Page 8 Discussion . Suggest eliminating the sentence – Therefore, for adolescent boys, sports–related activities that are defined as vigorous should be considered as moderate PA and not vigorous PA when comparing the activity of boys to that of girls.

Level of interest: An article of importance in its field

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

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I DECLARE THAT I HAVE NO COMPETING INTERESTS