Reviewer's report

Title: Do computer use, TV viewing, and the presence of the media in the bedroom predict school-aged children’s sleep habits in an eighteen-month follow-up?

Version: 1 Date: 11 April 2013

Reviewer: Evelyne Touchette

Reviewer’s report:

REVIEWER

General comment

This paper presents a very interesting public health subject, whether computer use and television viewing predict shorter sleep duration and later bedtimes among school-age children. However, one major comment is that the authors should analyse the results with more complex statistical method to fully take the data into account and answer the research questions.

Here are points that should also be addressed:

Major Compulsory Revisions

Abstract

1. Please change by "The purpose of this eighteen-month study follow-up (…)".
2. Please put P-values in the results section.

Introduction

1. The introduction is well-written but I would suggest incorporating other important papers in the literature review.

Methods

1. Please put an s "The pupils completed a questionnaire about health behaviors (…)"
2. I am wondering why the authors did not use a validated questionnaire in their Hälsoverkstaden project: Garmy et al. Development and psychometric evaluation of a new instrument for measuring sleep length and television and computer
habits of Swedish school-age children. The Journal of School Nursing. 2012;28(2):138-43. The authors should explain why they did not measure the computer use/TV viewing during the weekend.

3. Please add the child’s age as a confounder. It would control for children who repeat a class.

4. The statistical analyses section is very confusing. First, the authors should present descriptive analyses for all variables, including a description of missing data. Building on the work of Nicassio and Wallston (1992), we suggest that the authors conduct a path analysis to model directional relationships among computer use/TV viewing and sleep habits at baseline and eighteen-month follow-up. This type of path analysis offers several advantages over traditional regression analysis, including more accurate regression estimates, modeling of interactions with sex, reduced likelihood of spurious findings, and the ability to handle missing data. (Example: Bigatti et al. Sleep disturbances in Fibromyalgia syndrome: relationship to pain and depression. Arthritis & Rheumatism. 2008;59(7):961-967).

Results (Tables)

The Tables are very hard to understand.

1. Table 1. Please add Grade above 2006 and 2008. I suggest putting SD instead of 95% CI. Please use Bonferroni’s correction.

2. Table 2. Put SD instead of 95% CI. I suggest grouping media presence during school days together: computer in bedroom, TV in bedroom, computer use and TV viewing.

3. Please put a figure of the path model should the authors follow my suggestion, and explain the results in the text.

Discussion

1. The authors discuss other important covariates such as low physical activity, unhealthy diet, and overweight. Why were these potential confounders not included in the analyses?

Discretionary Revisions

Discussion

1. The authors should discuss the gender differences in more depth (e.g., types of computers games).

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

I have no competing interests.