Reviewer's report

Title: Adequate sleep among adolescents is positively associated with health status and health-related behaviors

Version: 1 Date: 6 January 2006

Reviewer: Michikazu Sekine

Reviewer's report:

General

This study examined whether there were the associations of the frequency of taking 6-8 hours of sleep with health status and health-related behaviours in 660 Taiwanese schoolchildren. It found that inadequate sleep was associated with health risk behaviours and poor health. The findings are interesting. This paper is basically well written and well organised. However, several issues need to be addressed before it is suitable for publication.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. Regarding the total number of study population, whereas the number is 660 in abstract and text, the number is 656 in Tables. Which is correct?
2. In the second paragraph of the Introduction section (P4, L1), authors mentioned that "Few studies investigated the effects of ....". This means that there are some previous studies on the relationship between adequate sleep and health and health-related behaviours. Authors should mention the main findings from previous studies and discuss.
3. In the third paragraph of the Introduction section (P4, L9), authors mentioned that "Taiwanese adolescents commonly have inadequate sleep...". This sentence needs a reference. In addition, authors should describe this in more detail (e.g. mean sleep hours in schoolchildren, and etc).
4. In the first paragraph of the Methods section (P4, L22), authors mentioned that "Participants were recruited from 7 selected schools...". Why did authors select these 7 schools? How did authors recruit the subjects? Authors mentioned that nearly half of the subjects were overweight. I understand that the prevalence of overweight children increased worldwide. However, I think that the prevalence of overweight in this study subjects is very high. Were obese children likely to participate in the study? Authors should describe more about the way of selecting the subjects and discuss the potential selection biases in this study.
5. In statistical analysis, univariate analysis was used to evaluate whether the frequency of taking 6-8 hours sleep was associated with health status and health-related behaviours. In general, sleep habits, health behaviours and health status may change with age. Actually, as authors showed in Table 3, high school children were more likely to have lower frequency of taking 6-8 hours sleep. In addition, there is some evidence of sex differences in sleep habits, health status and health behaviours. Age and sex are, therefore, potential confounders for the relationships between sleeps habits and health behaviours and health. So, authors should control potential confounding variables by using multivariate analysis such as logistic regression analysis (or using other methods such as stratification by confounding variables).
6. In the fourth paragraph of the Methods section (P6, L6-9), authors mentioned that "The BMI was calculated..." and "Each student’s BMI was then calculated...". These two sentences mean the same thing. One of the 2 sentences should be omitted.
7. In the first sentence of the Results section, authors mentioned that 230 (179+51) children (25.8%) were excluded in the analysis due to the absence of parental consent, invalid responses and etc. So, the authors should discuss the potential selection biases in this study.

8. In the Reference section, the title of the Sekine paper (#18) is not “A dose-relationship…” but “A dose-response relationship...”.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

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What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

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

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.