Reviewer’s report

Title: Occupational sitting time and its association with work engagement: results from the Stormont Study

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Reviewer: Kanami Tsuno

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Occupational sitting time and its association with work engagement: results from the Stormont Study

Although the study has potential to be an important contribution to the knowledge about the sedentary life styles and work engagement, there are several issues related to design and data analyses which make a revision necessary.

My major concerns are 1) the important information to clarify the influence of sitting time itself is missing (e.g., working hours and overtime hours/minutes), and 2) the hypothesis is unclear because the authors mention sitting time as an independent variable in the introduction part but in the analyses and the discussion part the authors handle it as a dependent variable, which cause the readers get confusing.

Major Compulsory Revisions

1. The number of the employees the authors contact is unclear (page 4, line 105). Did you send the email with a survey link to all employees (N = 26,507)? If so, the response rate would be 19.7%.

2. The authors mention “5235 employees completed the questionnaire” (page 4, line 106), however, on the next page the authors mention “office-based workers with no missing data were analysed (n = 4436)” (line 113). How many questionnaires had missing values? Also, the authors mention “These included participants in each job grade in Table 1” (line 114) but it seems industrial workers in Table 1 are not office-based workers. It is inconsistent so that the reviewer recommends that the authors set the Survey Respondents in Table 1 as the respondents who included final analyses (n = 4436) and clearly show that what respondents included the analyses in this study.

3. I wonder why the authors miss the information of working hours and overtime hours/minutes per day. This is crucial information because working hours may affect work engagement rather than sitting time itself. The authors also mention “men are likely to be in higher job grades and work longer hours” (page 11, line 283-284). How was in this sample?

4. There was no mention why the authors conducted the analyses separately among men and women. Are there any studies which reported gender differences of sitting time or work engagement?
5. As I mentioned above, the hypothesis in this study is unclear because the authors mention sitting time as an independent variable in the introduction part but in the analyses (Table 3 & 4) and the discussion part the authors handle it as a dependent variable. Work engagement, job performance, and health indices should be outcomes. Please re-analyze and rewrite the manuscript according to the hypothesis in this study.

5. Measurement of occupational sitting time—did you use a single-item question? Why did you calculate the total sitting time across work days? Because if the respondent is a part-time worker and the sum time would be much more time than fact and would mislead the results.

6. Table 3—Education and Job grade were entered as continuous variables but it should enter as the dummy variables because there are categorical.

7. Why do “employees who go the extra mile for their organization are more likely to sit less” (page 11, line 292-293)? Please explain more about it.

Minor Essential Revisions
1. The authors mention “No significant differences...” on line 108, Table 1 did not provide the information of p value. Add the column and present all p value of the demographic differences between survey respondents and total NICS staff. Additionally, percentages should be cited to the 1st decimal point (round off the 2nd decimal point). It is more informative to the readers.

2. The terms should be the same in the texts and tables. For example, the authors mention “Administrative Officer or Assistant grade” (page 5, line 110; line 122) but in Table 1 it is sited just “Administrative”. At the same time, the categories should also be the same, for example, in Table 1 and 2 the authors use the different age categories.

3. Table 2—the information of p value is missing. Also, the explanation about the abbreviation is only PA but it would be better the authors also explain other abbreviation such as PA, GCSE, etc.

4. The authors mention “age” two times in the same sentence (page 7, line 175; 177).

5. Periods are double (page 9, line 238).

Level of interest: An article of importance in its field

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

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.