Author's response to reviews

Title: Evaluation of ergonomic and education interventions to reduce occupational sitting in office-based university workers: study protocol for a randomized controlled trial

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Author's response to reviews: see over
EDITORIAL REQUESTS

1) Please ensure the title conforms to journal style for study protocol articles. The title should follow the format ?___________: study protocol for a randomized controlled trial.? The title of the study protocol has been revised in line with the journal style.

2) Please remove the conclusion section for the abstract. Removed.

3) If applicable, please include an acknowledgement section at the end of the manuscript before the reference list. Please acknowledge anyone who contributed towards the study by making substantial contributions to conception, design, acquisition of data, or analysis and interpretation of data, or who was involved in drafting the manuscript or revising it critically for important intellectual content, but who does not meet the criteria for authorship. Please also include the source(s) of funding for all authors. Authors should obtain permission to acknowledge from all those mentioned in the Acknowledgements. An Acknowledgement section has been added as follows

Acknowledgments
Each author made a substantial contribution to the conception and design of the study protocol and in drafting the manuscript. The authors also acknowledge the generous financial support received from the National Heart Foundation of Australia to conduct the study and the expert advice of their employee Michelle Daley. Authors also acknowledge the substantial financial and in-kind support received from The Prevention Research Collaboration at the University of Sydney."

REVIEWER COMMENTS

Reviewer 1:

The Authors provide the information that “The office set-up in the workplace settings for this trial is predominantly private, single occupier offices with few work centres using open plan office design” and this study setting will assist with maintaining blinding of participants.

Please let me ensure, whether the study is addressed to employees of the same building, the research team? In my opinion, this approach does not ensure complete blindness and inability to exchange information / knowledge / experience between the study participants.

Please specify, how do you prevent situations like this? Is possible?
It might not be possible to ensure complete blinding of participants to the aims of the study or to the other treatment intervention. Although, as we explain in this section, the private office set-up of our participant might help to keep participants naive to the other interventions we cannot ensure that their usual business and contact with colleagues might inadvertently un-blind the participants. This section has been revised to explain that the intent is to keep the participant naive, and that the office set up will assist with limiting though not necessarily eliminating participant exposure to knowledge of the other interventions.

The study sample is small (3x20 persons) and consisted of volunteers among academic employees, so cannot be representative even for these staff. However, that is a pilot of the study - the Authors have mentioned about it at the end of discussion. Is the study have a chance to be continued?

We will apply for funding to conduct a larger scale study.

Please specify more details about statistical analyses design

Further detail about the planned statistical analyses have been added to the manuscript as follows:

*Accelerometer activity counts will be recorded in 1-second intervals and aggregated into 1-minute epochs. We will download Actigraph® data using ActiLife® proprietary software and conduct further processing with a custom macro to categorise the data into activity intensity categories: sedentary (<100 counts/min), light (101-2020 counts/min), moderate (2021-5999 counts/min), and vigorous (≥6000 counts/min), based on the frequently used sedentary cut point for Actigraph accelerometers [37] and NHANES cut points for light-, moderate-, and vigorous-intensity levels [38]. Spurious epochs will be defined as those with over 20,000 counts/min, [39] and nonwear time will be defined as periods of consecutive strings of zero-count epochs lasting at least 60 minutes. A whole day of monitoring will be considered as valid if the participant wore the accelerometer for at least 10 hours during their waking time. A workday will be considered valid if the participant wore the accelerometer for at least 75% of their time at work.[40]*

*We will conduct 2-way repeated measures analyses of variance (RANOVA) to compare participants’ objectively assessed time spent in sedentary, light and moderate-to-vigorous intensity physical activity, as well as their self-reported sitting time, musculoskeletal symptoms and workability pre and post-intervention. The 2-way RANOVA’s will have one group factor (education; education plus sit-stand desk; control) and one time factor (pre and post). Models will test for group and time main effects and group X time interactions to examine whether any differences in outcome variables vary by study group from pre to post.*

*The primary analysis will be by intention-to-treat. All analyses will be conducted using IBM SPSS Statistics for Windows Version 21.0 (IBM Corp, Armonk, NY).*
To increase the precision of the manuscript (protocol), I would suggest to adopt the title the same as in the attached documents: Evaluation of ergonomic and education interventions in university office-based workers. A randomized controlled trial.

The title has been revised in line with this recommendation and the editorial recommendation.

It would be interesting and valuable to extend the follow-up period and to observe the changes in anthropometric measure and cardio-metabolic markers, such as glucose, HDL-cholesterol, triglycerides.

We agree that a longer follow up period and the addition of anthropometric and metabolic outcomes would be very interesting and valuable. These factors were feasible in a small pilot study. Anthropometric and metabolic outcomes will be added to the protocol in a future larger scale study.