RCT: Sitting Time and Sit-to-Stand Transitions in Office-Based Workers



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Background:

Prolonged sitting, especially in office-based workers, is common and has significant health implications. Despite this, the economic impacts of sedentary behaviour remain largely unexplored. Some occupational groups spend 70–85% of working hours sitting, which may lead to higher healthcare costs.

Aim and objective

This study is part of a doctoral project that aims to evaluate the impact and cost-effectiveness of workplace interventions designed to reduce prolonged occupational sitting among office-based workers.

Overal aim

Objective 1 : To assess existing evidence on the economic evaluations of workplace interventions targeting reduced prolonged sitting

To determine the extent of daily sitting time and its association with healthcare costs at midlife using data from the Northern Finland Birth Cohort 1966

Purpose of This Study (Objective 3) :

Objective 3 : To examine the impact of a workplace intervention aimed at reducing prolonged occupational sitting using a randomized rolled design

Research team:

1. Professor Paulus Torkki
2. Professor Raija Korpelainen
3. Professor Kristiina Patja
4. MD, PhD, Katja Ryynänen
5. Jani Ailovuo, Researcher
6. Postdoctoral Researcher Frank Kiwanuuka

Methods:

Participants: n = 101

Office-based employees aged 18–65, Seated computer-based work ≥6 h/day and ≥4 days/week

Control Group=50

Intervention Group= 51

Outcome measured for both groups

Intervention

Intervention

- Prompts every 30 minutes
- Desktop notifications
- Information about sitting and movement

activPAL

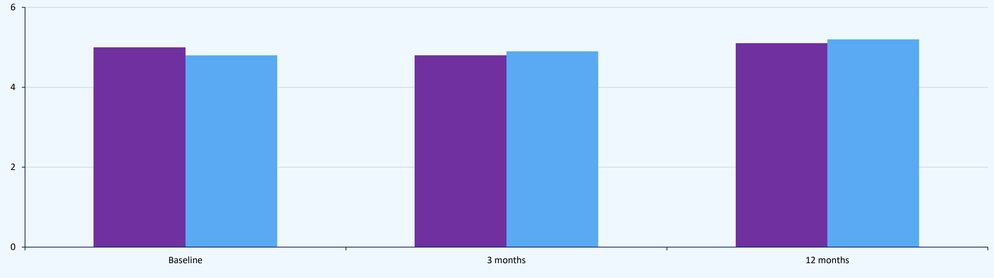


Baseline, 3 months and 12 months

Results

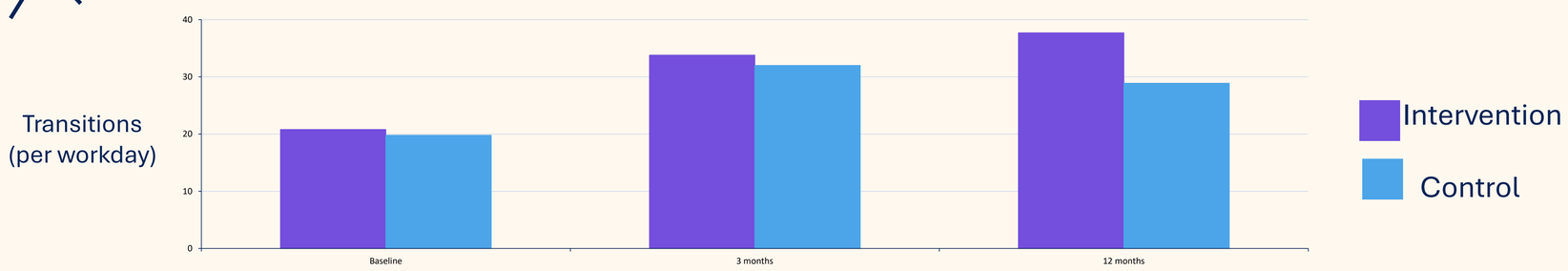
No significant intervention effect; sit-to-stand transitions increased over time

Workplace sitting time



No significant intervention effect
12-month difference: ***3.6 min/workday***

Sit-to-stand transitions/workday



Increased over time **in both groups at 3 months**
increased maintained at 12 month in intervention group
Overall intervention effect: not significant

Main conclusion

The digital prompting intervention did not significantly reduce occupational sitting time. Sit-to-stand transitions remain uncertain.

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