

Stand Up for Healthy Aging Cluster Randomized Controlled Trial

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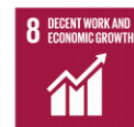
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Abstract:

Background: Sedentary behavior (SB) has been linked to several negative health outcomes. Therefore, reducing SB or breaking-up prolonged periods of SB improves functional fitness, food consumption, job satisfaction and productivity. Reducing SB can be achieved by introducing a health-enhancing contextual modification promoted by a sit-stand desk in the workplace. The primary goal of this study was to test the effectiveness of this intervention in reducing and breaking-up SB, while improving health outcomes in office-based workers during a 6-month intervention.

Methods: A two-arm (1:1), superiority parallel-group cluster RCT was conducted in a sample of office-based workers from a university in Portugal. The intervention consisted of a psychoeducation session, motivational prompts, and contextual modification promoted by a sit-stand desk in the workplace for 6 months. The control group also attended the psychoeducation session but worked as usual in their workplace. Three assessment points were conducted in both groups, pre-intervention (baseline), post-intervention, and a 3-month follow-up. The primary outcomes included sedentary and physical activity-related variables, which were objectively assessed with 24h monitoring using the ActivPAL for 7 days. The secondary outcomes included a) biometric indices as body composition, body mass index, waist circumference and postural inequalities; and b) psychosocial variables such as overall and

work-related fatigue, overall discomfort, life/work satisfaction, quality of life, and eating behavior.

Results: No significant time*group interaction was found for the primary or secondary outcomes. There were significant changes within the intervention group for sitting time (-44.0min/day), prolonged sitting (>30min) (-45.3min/day) and standing time (51.7min/day) at 3 months in the sub-sample and in prolonged sitting (>30min) (-26min/day) in the full intervention group ($p < 0.05$).

Changes were also observed within the intervention group for percent body fat ($\Delta -3.7\%$) and ratings of quality of life ($\Delta 2.2$), musculoskeletal discomfort ($\Delta -4.9$), overall fatigue ($\Delta -2.2$), and the need for recovery after work ($\Delta -1.7$) at 6-month follow-up ($p < 0.05$).

Conclusion: The implementation of sit-stand desks in the Portuguese workspace was shown to be feasible over the long term, received well by users, and may offer other health benefits.

Trial registration: <https://doi.org/10.17605/OSF.IO/JHGPW>;

Registered 15 November 2022. OSF Preregistration.

Partners:

