A multicomponent intervention to reduce daily sitting time in office workers: the SMART Work & Life three-arm cluster RCT

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Disclosure of interests of authors

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Plain language summary

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Plain language summary

Office workers spend a large proportion of their day sitting. High levels of sitting have been linked to diseases, such as type 2 diabetes, heart disease and some cancers. The SMART Work & Life intervention is designed to reduce office workers' sitting time inside and outside work. The SMART Work & Life intervention involves organisational, environmental, group and individual strategies to encourage a reduction in sitting time and was designed to be delivered with and without a height-adjustable workstation (which allows the user to switch between sitting and standing while working). To test whether or not the SMART Work & Life intervention worked, we recruited 756 office workers from councils in Leicester/Leicestershire, Greater Manchester and Liverpool, UK. Participants were from 78 office groups. One-third of the participants received the intervention, one-third received the intervention with a height-adjustable workstation and one-third were a control group (and carried on as usual). Workplace champions in each office group were given training and resources to deliver the intervention.

Data were collected at the start of the study, with follow-up measurements at 3 and 12 months. We measured sitting time using a small device worn on the thigh and collected data on weight, body fat, blood pressure, blood sugar and cholesterol levels. We asked participants about their health and work and spoke to participants to find out what they thought of the intervention.

Our results showed that participants who received the intervention without workstation sat for 22 minutes less per day, and participants who received the intervention with workstation sat for 64 minutes less per day, than participants in the control group. Levels of stress, well-being, vigour (i.e. personal and emotional energy and cognitive liveliness) and pain in the lower extremity appeared to improve in the intervention groups. Participants viewed the intervention positively and reported several benefits, such as feeling more energised, alert, focused and productive; however, the extent to which participants engaged with the intervention varied across groups.

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