

EA-OHP 2016 conference, Athens, Greece

SMaRT Work: Stand More AT Work. The development of behaviour change strategies for increasing standing and movement among sedentary office workers

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Background: High levels of sedentary behaviour (i.e., sitting) are a risk factor for poor health with high levels of sitting being linked with the development of Type 2 diabetes, heart disease, and cancer. With high levels of sitting widespread in desk-based office workers, office workplaces are an appropriate setting for interventions aimed at reducing sedentary behaviour. We designed a multi-component randomised control trial (RCT) called 'SMaRT Work: Stand More AT Work' to reduce occupational sitting time in sedentary office workers within the NHS.

Method: SMaRT Work consists of two distinct phases: intervention *development* and intervention *delivery and evaluation*. We report only the *development phase* here. The development phase takes a community-based participatory research approach using the Behaviour Change Wheel (BCW). Focus groups with 35 office workers were conducted to collect detailed information to gain a good understanding of the most appropriate behaviour-change strategies, to sit alongside the provision of height-adjustable workstations, at the environmental, organisational and individual level that support less occupational sitting. At its core, the BCW has a model of behaviour change known as the COM-B model, with the central tenet that behaviour is an interacting system comprising of the three core components of *capability*, *opportunity*, and *motivation*. The focus groups identified the barriers and facilitators to reducing sitting at work and ascertained which COM-B components should be the primary focus of the intervention strategies.

Results: Our findings suggest that the biggest barrier to standing at work is the lack of any *physical opportunity*. With increasing work demands and expectations, participants didn't feel able to stand and move away from their desks. The provision of a height-adjustable desk or desk attachment should overcome this particular barrier. In addition, office workers may not have the *psychological capability* to stand more at work as knowledge about the work and health consequences of prolonged sitting is low. To target this, we will provide educational material, such as leaflets, as well as deliver seminars to educate office workers about the long- and short-term effects of prolonged sitting. It also became evident that while the provision of a height-adjustable desk and education might provide participants with the opportunity and capability to reduce their sitting time at work, office workers may lack the sufficient *motivation* to put that into practice. As such, we will provide participants with motivational tools to provide feedback on their physical activity and sitting time, prompts to encourage participants to break up their sitting time regularly, and set regular goals should they so wish.

Conclusion: Having completed the development phase of SMaRT Work, recruitment and baseline data collection has now begun with the intervention due to start in January 2016.