ISRCTN29395780 https://doi.org/10.1186/ISRCTN29395780

The development of an intervention for reducing sitting time in the workplace

Submission date
21/11/2016

Recruitment status
No longer recruiting

Registration date
02/12/2016

Overall study status
Completed

Last Edited
07/08/2020

Condition category
Other

[_] Prospectively registered
[X] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims
Long periods of sitting down (e.g. during the working day) increase a person's risk of heart disease and diabetes. This has been demonstrated even for people who exercise regularly. Unfortunately with the rise of computer working more and more people are sitting for long periods of time during the day, and so this represents an urgent public health concern. This study aims to develop a new approach to helping people reduce their sitting time based on established psychological strategies for changing behaviour.

Who can participate?
Office workers aged 18 or over at King's College London

What does the study involve?
In the first week of the study participants are monitored using inclinometer devices which record when they are sitting or standing. Participants also keep track of the tasks they do at work in order to see whether they sit or stand more during particular types of task. After this 'monitoring' period participants are visited by the researcher for a session where they are given feedback on their sitting patterns during the monitoring week. Participants are then provided with 'sit-stand' desks which allow them to easily change between a sitting and standing position during their working day. Participants also choose from a range of strategies to change their sitting behaviour patterns, and importantly, to ensure that their change in behaviour is maintained in the long term. Participants use the desks for 12 weeks during which time they are monitored with the inclinometer devices for one week at a time 1 week later, 5 weeks later and 11 weeks later. After each of these monitoring weeks the researcher meets with the participants and interviews them to find out about their experiences of using both the sit-stand desk and the strategies for reducing their sitting.

What are the possible benefits and risks of participating?
The benefits of the study include the use of the sit-stand desk for 3 months, the opportunity to work with the researcher to tailor a range of strategies to their needs to help them reduce their sitting, and finally the receipt of a £100 Amazon voucher upon completion of every aspect of the study. The risks of taking part in the study surround the use of the sit-stand desk itself. Prolonged standing can lead to discomfort and even injury, particularly if there is a pre-existing

condition. Recommendations are provided throughout the study to reduce the chance of this occurring.

Where is the study run from?
King's College London (UK)

When is the study starting and how long is it expected to run for?
September 2016 to June 2017

Who is funding the study?
Medical Research Council (UK)

Who is the main contact?
Dr Stephen Dewitt

Contact information

Type(s)
Scientific

Contact name
Dr Stephen Dewitt

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Study information

Scientific Title
Development and piloting of an intervention to reduce workplace sitting time: the REducing SItting Time Study (the RESIT study)

Acronym
RESIT

Study objectives
The aim of the current study is to gain insight into the most efficacious methods of reducing sitting time in the workplace for desk-based workers in order to develop an intervention protocol.

Ethics approval required

Old ethics approval format

Ethics approval(s)
Psychiatry, Nursing & Midwifery Research Ethics Panel (King's College London), 29/09/2016, ref: LRS-16/17-3718

Study design
Uncontrolled pre-post design

Primary study design
Interventional

Study type(s)
Other

Health condition(s) or problem(s) studied
Sedentary behaviour

Interventions
The study uses an uncontrolled, pre-post design among a sample of 30 KCL office workers, to co-design and assess the acceptability of a workplace sitting reduction intervention, with three main follow-up points.

This is a pilot study with only one condition (the intervention).

The intervention comprises three key ‘ingredients’: firstly, a behaviour and cue-monitoring phase, with feedback; secondly, the provision of a height-adjustable desk for 3 months; and thirdly, a ‘menu’ of behaviour change techniques from which participants can select to customise the intervention to their needs.

In the cue monitoring phase, participants are asked firstly to wear an activPAL accelerometer-inclinometer device for one week and secondly to keep a record of the tasks they undertake at work during that week. At the end of this week they will also be asked to provide a subjective measure of the amount of time spent sitting during work for that week.

Ten days later, in the intervention session, participants will be first provided feedback on the cue monitoring week. Their subjective measure of sitting time will be compared to the objectively measured time, to raise awareness of their sitting behaviour. Any emergent relationship between sitting duration and time of day, day of the week, or task type will be presented to participants. Following this participants will be provided with a VariDesk Pro Plus 30 'sit-stand' desk and will be provided guidance and tips on its use.

In the same session participants' opportunity, motivation and capability to reduce their sitting time will be assessed using the COM-B model (Michie, Atkins & West, 2014). Based on participants' answers to these questions they will be offered a range of behaviour change techniques including a range of goal setting, action planning, habit formation, problem solving, habit disruption and motivational quotes from other sit-stand desk users. Following the intervention session all participants will be sent a summary of the information provided.

Follow up interviews will be undertaken 1, 6 and 12 weeks after the intervention session. In each of these sessions the researcher will collect the accelerometer (fitted one week prior in each

case) and run a semi-structured interview. The interview schedule at week one only will include questions on the participant's initial motivation to participate in the study, motivation to reduce sitting time and their initial expectations about reducing sitting time. All three interview schedules will then include questions on the participant's experiences of standing since the previous meeting, their perceptions of their capability, motivation on opportunity to stand over that period, questions on the conduciveness of the physical and social office environment to reducing sitting. Finally they will be asked questions related to their specific choice of behaviour change interventions to gain insight into their experience of employing these techniques. At the final session (week 12) the sit-stand workstation will be removed.

Intervention Type
Behavioural

Primary outcome(s)
1. Periods of, and transitions between, sitting and standing, measured using accelerometer-inclinometer devices over one week at 1, 5 and 11 weeks after the intervention session
2. Qualitative data from responses to open-ended interview questions across three sessions 1, 6 and 12 weeks after the intervention session

Key secondary outcome(s))
1. Participant records of tasks undertaken during monitoring week from Day 1 to Day 8
2. Participants' subjective measure of sitting time on Day 10

Completion date
01/06/2017

Eligibility

Key inclusion criteria
1. Office- and desk-based KCL employees whose job requires them to sit at a dedicated workstation (i.e. not a 'hot-desker') for the majority of their working day and to follow this working day pattern at least 3 days per week
2. Aged 18 or over (there is no upper age limit)
3. Able to stand at work (i.e., no physical impairment precluding standing in the workplace)

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Sex
All

Total final enrolment
29

Key exclusion criteria
1. Participants must not have taken part in similar 'standing while working' research previously or used a sit-stand desk at their work station for two or more days in a row
2. They also must not have plans to leave KCL or plans to take an absence for longer than 10 consecutive work days for the duration of the study period (October 2016 to June 2017)

Date of first enrolment
15/10/2016

Date of final enrolment
31/05/2017

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
King's College London
James Clerk Maxwell Building
57 Waterloo Road
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Sponsor information

Organisation
King's College London

ROR
https://ror.org/0220mzb33

Funder(s)

Funder type
Research council

Funder Name
Medical Research Council

Alternative Name(s)
Medical Research Council (United Kingdom), UK Medical Research Council, Medical Research Committee and Advisory Council, MRC

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study are/will be available upon request from Stephen Dewitt or Benjamin Gardner

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/12/2019	07/08/2020	Yes	No
Protocol article	protocol	28/11/2017		Yes	No