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Efficacy of a web-based competitive intervention to promote physical activity

Submission date
05/10/2012

Recruitment status
No longer recruiting

Registration date
12/10/2012

Overall study status
Completed

Last Edited
27/04/2018

Condition category
Other

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

Plain English summary of protocol

Background and study aims:
This study aims to assess how well two web-based treatments promote physical activity compared to a group who are not provided the web-based treatments (control group). Physical activity will be measured using pedometers (an instrument that records the number of steps taken by an individual).

Who can participate?
Low-active people living and/or working in the Leeds area. Participants will be male or female, aged between 18 - 65 years and have access to the internet at home.

What does the study involve?
The study will test the effect of competition and self-monitoring on physical activity (pedometer steps). At the first session, all participants will be fitted with a pedometer which they will wear throughout the study. In a second session they will complete a questionnaire before being randomly allocated to one of three conditions: control, self-monitoring, competition.
In the control condition, participants will be asked to try to walk 10,000 steps per day and wear a pedometer. They will also be asked to log-on to the study website at least once every 7 days to answer a question regarding how much activity they have done while not wearing their pedometer.
In the self-monitoring condition, participants will receive the same instructions as those in the control but they will be asked to log onto a study website at least once every 7 days to record their number of pedometer steps. Participants in this condition will also be able to track changes in their pedometer steps over the course of the study using graphs and tables that are generated on the website.
In the competition condition, participants will receive the same instructions as those in the self-monitoring condition. They will also receive feedback relating to how their pedometer steps compare to other participants in their condition. Their position relative to other participants, in terms of pedometer steps, will be presented in the form of a league table.
At the final session, all participants will complete the questionnaire completed in the second session.

What are the possible benefits and risks of participating?
Participants will be motivated to engage in more physical activity. As the treatments are relatively simple to give and of a web-based nature they could provide a scalable, cost-effective way to promote physical activity.
Only participants that are able to increase their physical activity are able to participate to ensure their safety.

Where is the study run from?
University of Leeds

When is study starting and how long is it expected to run for?
Recruitment and testing of participants will run from October to December 2012 (phase 1) and from January to March 2013 (phase 2).

Who is funding the study?
Unilever Research

Who is the main contact?
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Contact information

Type(s)
Scientific

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Study information

Scientific Title
Efficacy of a web-based competitive intervention to promote physical activity in adults: a randomized controlled trial

Study objectives
1. The participants in the self-monitoring condition will increase the average number of pedometer steps per day more than participants in the control group.

2. The participants in the competition condition will increase the average number of pedometer steps per day more than participants in the self-monitoring and control groups
3. The effect of the competition manipulation on pedometer steps will be mediated by greater motivation to achieve more steps.
4. The effect of the competition manipulation on pedometer steps will be greater for individuals who are:
4.1. competitive
4.2. more often compare themselves to others

Ethics approval required
Old ethics approval format

Ethics approval(s)
University of Leeds Research Ethics Committee, 03 October, 2012, ref: 12-0160

Primary study design
Interventional

Study design
Randomized controlled trial

Study type(s)
Quality of life

Health condition(s) or problem(s) studied
Physical activity promotion

Interventions
There are three conditions: competition; self-monitoring and control.

In the control condition, participants will be asked to try to walk 10,000 steps per day and wear a pedometer. They will also be asked to log-on to a study web-site at least once every 7 days to answer a question regarding how much activity they have done while not wearing their pedometer.

In the self-monitoring condition, participants will receive the same instructions as those in the control but they will be asked to log onto a study website at least once every 7 days to record their number of pedometer steps. Participants in this condition will also be able to track changes in their pedometer steps over the course of the study via graphical and tabular feedback.

In the competition condition, participants will receive the same instructions and be asked to self-monitor their pedometer steps and receive the same graphical and tabular feedback. In addition, they will also receive feedback relating to how their pedometer steps compare to other participants in their condition. Their position relative to other participants, in terms of pedometer steps, will be presented in the form of a league table.

Intervention Type
Other

Phase
Not Applicable

Primary outcome(s)
Average number of pedometer steps per day. This will be assessed before (from week 0 to week 1) and after (from week 1 to week 5) the intervention begins.

Our objective measure of steps will be obtained using a Yamax CW-300 pedometer.

Key secondary outcome(s)
1. Frequency of visiting the study website.
2. Self-reported intention to do at least 10,000 steps per day will be assessed using two items on scales ranging from 1 (strongly disagree) to 7 (strongly agree):
I intend to do at least 10,000 steps per day over the next 4 weeks
I will try to do at least 10,000 steps per day over the next 4 weeks

We will also assess in relation to doing at least 10,000 steps per day:
3. planning, effort and commitment using single items;
4. perceived behavioural control using two items;
5. self-efficacy using four items;
6. goal difficulty, goal importance and goal conflict using single items.
7. Type of motivation will be assessed using the BREQ-2 (Markland & Tobin, 2004; Mullan, Markland & Ingledew, 1997).
8. Self-monitoring using a single item

Completion date
28/04/2015

Eligibility

Key inclusion criteria
1. Aged 18-65
2. Live and/or work in Leeds
3. Have access to the internet at home
4. Have sufficient English language skills in order to complete questionnaires

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Upper age limit
65 Years

Sex
All

Key exclusion criteria
1. Any indication that they are not ready to be physically active (assessed through Physical Activity Readiness Questionnaire)
2. Taking part in any other studies
3. Categorised as moderate (category 2) or high (category 3) on the International Physical Activity Questionnaire

Date of first enrolment
11/10/2012

Date of final enrolment
07/11/2014

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
University of Leeds
Institute of Psychological Sciences
Leeds
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Sponsor information

Organisation
University of Leeds (UK)

ROR
https://ror.org/024mrxd33

Funder(s)

Funder type
Industry

Funder Name

Unilever Research (UK) ref: CH-2010-0904

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/03/2017		Yes	No