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A dyadic action control trial In overweight and obese couples

Submission date
20/03/2012

Recruitment status
No longer recruiting

Registration date
27/04/2012

Overall study status
Completed

Last Edited
14/12/2021

Condition category
Nutritional, Metabolic, Endocrine

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

Plain English summary of protocol

Background and study aims
Regular physical activity has a positive impact on health in general and on weight in particular. However, 60% of the Swiss population do not regularly take part in physical activity and 37% are overweight or obese. The aim of this study is to examine the benefits ofphysical activity in overweight and obese couples, specifically the role of the partner in increasing physical activity.

Who can participate?
Overweight or obese, heterosexual adult couples want to increase their physical activity

What does the study involve?
Participating couples, with one partner being the target person, are randomly allocated to one of four different groups. At the start of the study, participants in all four groups receive an information leaflet on the benefits of physical activity for health and weight management. Additionally, target people and their partners in group 1 are instructed to set behavioral goals on how to increase the target person's physical activity to the recommended level. The target people in group 2 are instructed to set behavioral goals on their own. During the following two weeks, target people receive a daily text message reminding them of their goals. In group 1 the text-message reminder is sent by the partner, and in group 2 it is sent by the study personnel. Participants in groups 3 and 4, as well as the partners of group 1 and 2, also receive reminders to complete their daily diary. Participants in group 3 are instructed to not set any behavioral goals. Participants in group 4 complete a diary without reporting their physical activity.

What are the possible benefits and risks of participating?
Completion of the study is reimbursed with CHF 200 per couple. Furthermore, participants of all four groups may increase their level of physical activity. In none of the four groups will participants encounter any risks, inconveniences or disadvantages.

Where is the study run from?
University of Bern (Switzerland)

When is the study starting and how long is it expected to run for?
March 2012 to January 2014

Who is funding the study?
Swiss National Science Foundation (Switzerland)

Who is the main contact?
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Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
N/A

Study information

Scientific Title
Individual versus dyadic action control: a randomized controlled trial to promote physical activity in overweight and obese couples

Acronym
DYACTIC

Study objectives
1. Is a dyadic action-control intervention more effective in promoting physical activity than an individual action-control intervention and control conditions? Is the effect of dyadic action-control dependent on the individual regulation capacities?
It is assumed that the dyadic action control intervention is superior in its effects on physical activity in an intentional sample than an individual action control intervention or control conditions. Both experimental groups (dyadic vs. individual action control) should be more successful in their behavioral change than control conditions. Moreover, it is assumed that this positive effect of dyadic action control is even more pronounced in individuals low in their individual self-regulation competencies.

2. What are the meditating mechanisms of the dyadic and individual action control conditions?
It is hypothesized that in the individual action control condition, the potential mediating mechanisms are enhanced action control and self-efficacy. The mediating mechanisms in the dyadic action control condition are in addition to these two individual components also social control and social support.

3. Are there gender differences in the effectiveness of a dyadic action control intervention?
It is assumed that men benefit more from a dyadic action control intervention provided by their heterosexual partner than women.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Faculty of Human Sciences Ethics Committee, University of Bern, 21/02/2012 ref: 2011-12-36206

Study design
Single-blind single-centre randomized controlled trial with longitudinal design

Primary study design
Interventional

Study type(s)
Quality of life

Health condition(s) or problem(s) studied
Physical activity in overweight and obese individuals

Interventions
Experimental group I: Dyadic action-control group
1. Information leaflet on the benefits of moderate-intensity physical activity and the recommendations of the Swiss Federal Office of Sports (BASPO).
2. At the end of the baseline session, target persons and their partners are instructed to form behavioral goals to increase the target persons physical activity to the recommended levels (e. g., get off the bus two stops earlier when going to work or take the bike instead of the car).
3. Partners are instructed to send daily text messages aiming at reminding the target person to their physical activity goals in personalized form (e.g., Dear Peter, which of the planned activities have you already carried out today? Love, Regula) on weekdays during the two weeks following baseline assessment. Target persons will not be informed that partners will receive a reminder text message from the study personnel every day instructing them to send the text message (and to fill in the diary at the end of the day).

Experimental group II: Individual action-control group
1.Information leaflet on the benefits of moderate-intensity physical activity and the recommendations of the Swiss Federal Office of Sports (BASPO).
2. At the end of the baseline session, target persons alone are instructed to form behavioral goals to increase their physical activity to the recommended levels (e.g., get off the bus two stops earlier when going to work or take the bike instead of the car).
3. On weekdays during the two weeks following baseline assessment, the target persons will

receive a daily text messages from the study personnel aiming at reminding the target person to their physical activity goals. Partners of the target persons in this condition will receive a text message at the same time with the prompt to complete the diary at the end of the day.

Control group I: Full diary version
1. Information leaflet on the benefits of moderate-intensity physical activity and the recommendations of the Swiss Federal Office of Sports (BASPO).
2. Couples in control group I will not be instructed to form any behavioral goals, but will also receive text messages (at the same time as all other participants) with the prompt to complete the diary at the end of the day.

Control group II: Diary without self-reported physical activity
1. Information leaflet on the benefits of moderate-intensity physical activity and the recommendations of the Swiss Federal Office of Sports (BASPO).
2. Couples of this second control group will receive the same instructions and text messages during the diary phase as control group I participants. As completing a diary on self-reported physical activity might in itself trigger self-monitoring, albeit not as strongly as the two intervention groups, the second control group serves the purpose to control for this potential diary effect by only completing questions on social-cognitive variables, but not on self-reported physical activity. Thus, this group will rely on ambulatory momentary monitoring of physical activity by means of an accelerometry only.

Intervention Type
Behavioural

Primary outcome(s)
1. 7-day-recall of physical activity, measured using an adapted version of the Physical Activity Frequency Questionnaire (PAFQ; Bernstein et al., 1998) and German-PAQ-50+ (Huy & Schneider, 2008) at baseline, 1 month follow-up and 6 month follow-up.
2. 24-hour-recall of physical activity, measured using an adapted short version of the Physical Activity Frequency Questionnaire (PAFQ; Bernstein et al., 1998) during the diary phases, i.e., daily during 28 days following baseline assessment and daily during 14 days after 6 month follow-up.
3. Accelerometry Data of physical activity (amount of light, moderate and intense activity per day, energy expenditure per day), measured by Actigraph devices GT3X+ daily during 28 days following baseline and daily during 14 days after 6 month follow-up.

Key secondary outcome(s))
1. Habitual physical activity, measured using the Baecke Index at run-in period and 6 month follow-up
2. Body Mass Index (BMI), waist circumference, waist-to-hip-ratio, measured at baseline, one month follow-up and 6 month follow-up
3. Aerobic fitness, measured by the submaximal cycle test Aerobic Power Index at baseline and 6 month follow-up.

Completion date
03/01/2014

Eligibility

Key inclusion criteria

1. Heterosexual adult couples
2. Being committed for at least 12 months
3. Cohabitating for at least 6 months
4. German-speaking
5. BMI > 25
6. Physically inactive and intending to be more active

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Sex
All

Key exclusion criteria
1. 24-hour shift work
2. Pregnancy

Date of first enrolment
16/03/2012

Date of final enrolment
03/01/2014

Locations

Countries of recruitment
Germany

Switzerland

Study participating centre
University of Konstanz
Konstanz
Germany
78457

Sponsor information

Organisation

University of Bern (Switzerland)

ROR
https://ror.org/02k7v4d05

Funder(s)

Funder type
Research organisation

Funder Name
Schweizerischer Nationalfonds zur Förderung der Wissenschaftlichen Forschung ref: PP00P1_133632/1

Alternative Name(s)
Schweizerischer Nationalfonds, Swiss National Science Foundation, Fonds National Suisse de la Recherche Scientifique, Fondo Nazionale Svizzero per la Ricerca Scientifica, Fonds National Suisse, Fondo Nazionale Svizzero, Schweizerische Nationalfonds, The Swiss National Science Foundation (SNSF), SNF, SNSF, FNS

Funding Body Type
Private sector organisation

Funding Body Subtype
Trusts, charities, foundations (both public and private)

Location
Switzerland

Results and Publications

Individual participant data (IPD) sharing plan
Not provided at time of registration

IPD sharing plan summary

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/08/2016		Yes	No
Results article	results	05/01/2018	28/10/2019	Yes	No
Results article		24/11/2021	14/12/2021	Yes	No
Protocol article	protocol	24/12/2014		Yes	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes

Study website	Study website	11/11/2025	11/11/2025	No	Yes