ISRCTN10092138 https://doi.org/10.1186/ISRCTN10092138

Does the level at which goals are set (e.g., 'walking' versus 'physical activity' versus 'lose weight') influence their effectiveness?

Submission date
22/02/2019

Recruitment status
No longer recruiting

Registration date
28/02/2019

Overall study status
Completed

Last Edited
29/08/2019

Condition category
Other

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[ ] Record updated in last year

Plain English summary of protocol

Background and study aims
Goal setting is an effective behaviour change technique, but there are no studies comparing setting behavioural goals (e.g., exercise 5 times a week) versus setting outcome goals (e.g., lose 1 lb in weight per week). Furthermore, it is not clear at what level behavioural goals should optimally be set. Thus, in the example above, “exercising 5 times a week” is currently considered just as much as behavioural goal as “walking a mile 5 times a week”. However, for people who are currently sedentary, setting a goal of “walking” might be more achievable than setting a goal of “exercising”. The aim of this study is therefore to explore the effectiveness of goals based on instrumental acts (e.g., walking), compound behaviours (e.g., exercising) and outcomes (e.g., losing weight) compared to a control group that does not set a goal. It is expected that setting goals will be more effective in increasing physical activity than not setting goals and that setting goals framed in terms of instrumental acts and compound behaviour will result in greater increases in physical activity than goal setting framed in terms of outcome. For individuals with a more sedentary lifestyle, formulating goals as instrumental acts would be more effective than goal setting around compound behaviours or outcomes. The study also explores if the level of physical activity prior to setting a goal influences the effectiveness of goal setting interventions (i.e., Do goals work best in those with a less physical active lifestyle rather than those with a more physical active lifestyle?). It is expect that goal setting is likely to be better for people that are already more active, comparing to individuals with a more sedentary lifestyle. Whereas, setting goals around outcomes is expected to be more sustaining for individuals that are generally more active.

Who can participate?
People over the age of 18 who are able to perform light exercise but typically engage in fewer than 150 minutes (2 1/2 hours) per week

What does the study involve?
Participants are randomly allocated to one of four groups and asked to complete a questionnaire. For participants in the control group, questionnaire completion is the end of the study. Participants in the other three groups are asked to set a goal. The four groups are:

1. Control group - no goal setting
2. Intervention group 1 - goal setting based on instrumental acts (i.e., a single behaviour)
3. Intervention group 2 - goal setting based on a compound behaviour (i.e., to increase physical activity)
4. Intervention group 3 - goal setting based on an outcome (e.g., to lose 0.5 lb of weight per week)

What are the possible benefits and risks of participating?
Participants in the intervention group will learn a new technique that may help them with increasing their physical activity. Additionally, participants will receive a payment for their participation in the study. The participants may make changes to their lifestyles by becoming more active, but this is considered a benefit rather than a risk.

Where is the study run from?
The panel of participants of Prolific Academic will be used to recruit participants and administer the survey.

When is the study starting and how long is it expected to run for?
February 2019 to April 2019

Who is funding the study?
The study is part of a wider programme of research funded by Tesco PLC

Who is the main contact?
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Contact information

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Additional identifiers

Clinical Trials Information System (CTIS)
Nil known

ClinicalTrials.gov (NCT)
Nil known

Protocol serial number
2019-5486-9429

Study information

Scientific Title
Does the level at which goals are set (i.e., individual behaviours versus categories of behaviour versus outcomes of behaviour) influence their effectiveness?

Acronym
Levels of Goal Setting Study

Study objectives
1. The goal setting groups will report greater increases in physical activity than the control group
2. Formulating goals as instrumental acts or compound behaviours will increase physical activity more than setting outcomes as goals
3.1. Goal setting will be most effective for those who are currently more active.
3.2. Among people who are sedentary, setting goals around instrumental acts will be more effective than goal setting around compound behaviours or outcomes.
3.3. Among people who are more physically active, setting goals around outcomes will be more sustaining than setting goals around instrumental acts or compound behaviours

Ethics approval required
Old ethics approval format

Ethics approval(s)
University of Manchester Research Ethics Committee 1 (UREC1), Research Governance, Ethics and Integrity, 2nd Floor Christie Building, The University of Manchester, Oxford Road, Manchester, M13 9PL, Tel: +44 (0)161 275 2206/2674, Email: research.ethics@manchester.ac.uk, 20/02/2019, ref: 2019-5486-9429

Study design
Mixed participant design with 3 factors. The between participant factors are type of goal (4 levels; control, instrumental, compound behaviours and outcome goals) and physical activity bracket (2 levels; very inactive and moderately inactive). The within participant factor is physical activity at baseline and 2 weeks follow up.

Primary study design
Interventional

Study type(s)
Prevention

Health condition(s) or problem(s) studied
Behavioural goal setting

Interventions
Participants will be randomized to one of four conditions and asked to complete a questionnaire. For participants in the control group, questionnaire completion will signal the end of the study. Participants in the other three conditions will be asked to set a goal. The four study conditions are:
1. Control Condition - No goal setting
2. Intervention group 1 - Goal setting based on instrumental acts (i.e., a single behaviour)
3. Intervention group 2 - Goal setting based on a compound behaviour (i.e., to increase physical activity)
4. Intervention group 3 - Goal setting based on an outcome (e.g., to lose 0.5lbs of weight per week)

Intervention Type
Behavioural

Primary outcome(s)

Participants' engagement in physical activity subdivided into:
1. Walking, measured at baseline and follow-up
2. Walking frequency, measured at baseline and follow-up
3. Walking time, measured at baseline and follow-up
4. Walking intensity, measured at baseline and follow-up
5. Cycling, measured at baseline and follow-up
6. Cycling frequency, measured at baseline and follow-up
7. Cycling time, measured at baseline and follow-up
8. Cycling intensity, measured at baseline and follow-up
9. Sport/activity, measured at baseline and follow-up
10. Sport/activity frequency, measured at baseline and follow-up
11. Sport/activity time, measured at baseline and follow-up
12. Sport/activity intensity, measured at baseline and follow-up
13. Sitting time during a week, measured at baseline and follow-up
14. Sitting time during the weekend, measured at baseline and follow-up

All variables are being measured using a self-report method and a final score will be calculated by summing all activities which were sufficient to raise breathing rate. Sources: short active lives survey (Sport England), International Physical Activity Questionnaire (IPAQ). The follow-up questionnaire administration will be conducted 2 weeks after the first questionnaire completion.

Key secondary outcome(s))

Physical activity beliefs:
1. Physical opportunity, measured at baseline and follow-up
2. Social opportunity, measured at baseline and follow-up
3. Reflective motivation, measured at baseline and follow-up
4. Automatic motivation, measured at baseline and follow-up
5. Physical ability, measured at baseline and follow-up
6. Psychological capability, measured at baseline and follow-up
Source: Keyworth, C, Epton, T, Goldthorpe, J, Calam, R, & Armitage, C. Reliability, validity, and acceptability of a brief measure of capabilities, opportunities, and motivations.

Goal beliefs:
1. Goal desire, measured at baseline and follow-up
2. Goal control, measured at baseline and follow-up
3. Goal difficulty, measured at baseline and follow-up
4. Goal confidence, measured at baseline
5. Goal attention, measured at follow-up
6. Goal effort, measured at follow-up
7. Goal commitment, measured at follow-up
8. Goal strategy, measured at follow-up
9. Goal completion, measured at follow-up
10. Goal informed, measured at follow-up
11. Group goal, measured at follow-up
Source: Perugini, M, & Conner, M (2000). Predicting and understanding behavioral volitions: The interplay between
goals and behaviors. European Journal of Social Psychology, 30(5), 705–731.

All variables are being measured using self-report. The follow-up questionnaire administration will be conducted 2 weeks after the first questionnaire completion.

Completion date

31/07/2019

Eligibility

Key inclusion criteria
1. Residents of the UK
2. Over the age of 18
3. Able to perform light exercise but typically engage in fewer than 150 minutes (2 1/2 hours) per week

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Sex
All

Total final enrolment
504

Key exclusion criteria
1. Not UK residents
2. Under 18 years old
3. Not able to perform physical activity or they typically performed more than 150 minutes (2 1/2 hours) of physical activity per week

Date of first enrolment
25/02/2019

Date of final enrolment
09/07/2019

Locations

Countries of recruitment
United Kingdom

England

Study participating centre

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Sponsor information

Organisation
University of Manchester

ROR
https://ror.org/027m9bs27

Funder(s)

Funder type
Industry

Funder Name
TESCO PLC

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during the current study will be stored in a publically available repository (Open Science Framework (OSF) https://osf.io/t4jbu/). The dataset will include participants answers to the baseline and follow up questionnaire excluding any identification numbers. The data will be made available after the trial has been completed by the end of July 2019 and will be available for about 5 years. Participants were informed about and consented to their data being made available on the Open Science Framework website.

IPD sharing plan summary
Stored in repository

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes