ISRCTN23466915 https://doi.org/10.1186/ISRCTN23466915

Effects of a smartphone intervention targeting fruit and vegetable consumption

Submission date
04/02/2015

Recruitment status
No longer recruiting

Registration date
12/02/2015

Overall study status
Completed

Last Edited
13/06/2016

Condition category
Nutritional, Metabolic, Endocrine

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

Plain English summary of protocol

Background and study aims
High percentages of people do not adhere to the recommendations to eat enough fruit and vegetables. The aim in this study is to apply tailored auditory and textual persuasive health communication to increase fruit and vegetable intake.

Who can participate?
Dutch adults, who own a smartphone (Android) and do not always eat two pieces of fruit and 200 grams of vegetables per day

What does the study involve?
After downloading the smartphone application in Google Play, participants can complete baseline questions about their own health. All questions and stimuli are presented in the smartphone application. Respondents will be randomly allocated to a tailored (textual or auditory) message and additional evaluation measures (intervention group) or measurements at the start and beginning of the study, and they will not have access to the general content of the smartphone application (control group). Additionally, the intervention group will have access to the general smartphone application content (consisting of recipes and additional information). They can also expect reminders during the 6 months of the study to log in again and they will be asked to answer some new questions and read or listen to new information that is added every month to the application. After 6 months, participants will receive an email reminder for the final questionnaire.

What are the possible benefits and risks of participating?
Participants will gain an insight into their fruit and vegetable intake, and, in future, persuasive health messages might increase fruit and vegetable intake within a smartphone application. There are no known risks to participants taking part in this study.

Where is the study run from?
Netherlands: University of Groningen and the Netherlands Nutrition Centre

When is the study starting and how long is it expected to run for?
October 2013 to June 2014

Who is funding the study?
Netherlands Organisation for Health Research and Development

Who is the main contact?
Ms Sarah Elbert
Professor Arie Dijkstra

Contact information

Type(s)
Scientific

Contact name
Ms Sarah Elbert

ORCID ID
https://orcid.org/0000-0001-9722-8076

Contact details
Faculty Behavioral and Social Sciences
Department of Social Psychology
Grote Kruisstraat 2/1
Groningen
Netherlands
9712 TS

Additional identifiers

Study information

Scientific Title
Effects of a smartphone intervention targeting fruit and vegetable consumption among Dutch adults: a randomised controlled trial

Study objectives
1. A tailored health intervention may be more effective than a control in which no health information is given
2. To test the possible difference in effects between the more classic textual mode of communication and the auditory mode of communication (reading versus listening)

Ethics approval required
Old ethics approval format

Ethics approval(s)
Ethical committee of the Faculty of Behavioral and Social Sciences, 05/09/2013, ref: 13012-N

Study design
Interventional randomised controlled study

Primary study design
Interventional

Study type(s)
Other

Health condition(s) or problem(s) studied
Fruit and vegetable intake in the general population

Interventions
1. Text-based and audio-based tailored health information based on psychological factors that are known to predict fruit and vegetable intake
2. Control (no health information)

Respondents will complete baseline and post-test measures at 6-month follow-up (between-participants design).

Intervention Type
Other

Primary outcome(s)
Self-reported fruit and vegetable intake at 6-month follow-up, measured with a detailed and validated food frequency questionnaire

Key secondary outcome(s))
After the frequency questionnaire on fruit and vegetable intake at 6-month follow-up, questions will be added to evaluate the information and smartphone application as a whole on a range of measures:
1. Personal applicability
2. Novelty
3. Credibility
4. Extent to which it is perceived as intense
5. Usefulness
6. Comprehensibility
7. Visual attractiveness

Completion date
15/06/2014

Eligibility

Key inclusion criteria
1. Age 16 years or older
2. Living in the Netherlands
3. Owning an Android device (smartphone or tablet, Android version 2.2 or more) with an installed version of Adobe Air (if necessary, they were automatically directed to Google Play to install it safely)
4. Not yet consuming two pieces of fruit and 200 grams of vegetables per day

Participant type(s)

Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Sex
All

Key exclusion criteria
Intolerance to fruit

Date of first enrolment
01/10/2013

Date of final enrolment
30/11/2013

Locations

Countries of recruitment
Netherlands

Study participating centre
Netherlands Nutrition Centre
Den Haag
Netherlands
2517 KL

Study participating centre
University of Groningen
Faculty of Behavioral and Social Sciences
Groningen
Netherlands
9712 TS

Sponsor information

Organisation
University of Groningen (Netherlands)

ROR
https://ror.org/012p63287

Funder(s)

Funder type
Research organisation

Funder Name
Netherlands Organisation for Health Research and Development

Alternative Name(s)
Netherlands Organisation for Health Research and Development

Funding Body Type
Private sector organisation

Funding Body Subtype
Other non-profit organizations

Location
Netherlands

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	10/06/2016		Yes	No