ISRCTN85785540 https://doi.org/10.1186/ISRCTN85785540

Evaluating an app to help people quit smoking

Submission date
08/10/2020

Recruitment status
No longer recruiting

Registration date
15/10/2020

Overall study status
Completed

Last Edited
27/11/2024

Condition category
Other

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

Plain English summary of protocol

Background and study aims
The majority of smokers want to stop smoking and many try to quit each year, but success rates are low. Methods of supporting smokers during a quit attempt that are low-cost and easy to access are needed. We are hoping to find out how likely smokers who are motivated to quit are to be successful in quitting, and how far this is influenced by how they try to quit. Specifically, we want to know whether offering a smoker a popular smartphone app can increase their chances of quitting successfully.

Who can participate?
People are eligible to take part in this study if they are aged 18 years or older, are able to provide informed consent, are an English speaker, own a smartphone, are a current cigarette smoker, are willing to be followed-up by email and complete four brief questionnaires after 1, 4 and 7 months and are interested in making a quit attempt in the next 30 days.

What does the study involve?
Participants will be asked to complete four brief online questionnaires: now, and in 1, 4 and 7 months' time. The first questionnaire is the longest, and will take around 10 minutes to complete. The other three are shorter and will take around 3-5 minutes. We will send an email to let them know when it is time to complete each survey.

What are the possible benefits and risks of participating?
Participating in the study will help us to understand more about how different tools can be used to help people quit smoking, making a valuable contribution to science and public health. On behalf of those who complete all four surveys we will make a £10 donation to Cancer Research UK or Macmillan Cancer Support, according to the participant's preference. We do not anticipate any problems related to participation in this study.

Where is the study run from?
University College London (UK). More information about the study team can be found at https://www.ucl.ac.uk/iehc/research/behavioural-science-health/research/tobacco-alcohol

When is the study starting and how long is it expected to run for?
August 2018 to December 2021

Who is funding the study?
This study is part of a large programme of work funded by Cancer Research UK (UK)

Who is the main contact?
Dr Sarah Jackson, s.e.jackson@ucl.ac.uk
Prof. Jamie Brown, jamie.brown@ucl.ac.uk

Study website
http://www.uclsmokingstudy.co.uk

Contact information

Type(s)
Scientific

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Additional identifiers

EudraCT/CTIS number
Nil known

IRAS number

ClinicalTrials.gov number
Nil known

Secondary identifying numbers
CEHP/2016/556

Study information

Scientific Title
Effectiveness of an offer of the Smoke Free smartphone application for smoking cessation compared with no support: the App for Smoking ceSsation Evaluation Trial (ASSET)

Acronym
ASSET

Study objectives
In Englishspeaking adult smokers willing to quit in the next 4 weeks who are recruited online or have previously used the Smoke Free app and agreed to be followedup and in an unrestricted setting, an offer to use the app plus followup (intervention) will increase selfreported smoking cessation for at least 26 weeks, assessed 30 weeks after enrolment, compared with no offer of the app and followup only (comparator).

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 06/09/2019, UCL Research Ethics Committee (University College London, 2 Taviton St, London WC1E 6BT, UK. +44 (0)207 6798717; ethics@ucl.ac.uk), ref: CEHP/2016/556

Study design
Interventional randomized controlled trial

Primary study design
Interventional

Secondary study design
Randomised controlled trial

Study setting(s)
Internet/virtual

Study type(s)
Treatment

Participant information sheet
http://www.uclsmokingstudy.co.uk

Health condition(s) or problem(s) studied
Smoking cessation

Interventions
This will be a twoarm individually randomized controlled effectiveness trial. Participants will be adult smokers who are intending to quit in the next 4 weeks, willing to participate in a 30week study of their smoking and able to provide consent.

Those who are eligible and consent to participate in the trial will be randomized at that point to intervention or comparator conditions. Randomization will be 1:1 at the individual level with no restriction (i.e. no blocking) and will be automated using a random number function.

After consenting, participants in the comparator condition will receive a message encouraging them to make a quit attempt within the next 4 weeks and reminding them of the importance of responding to followup requests which are designed to track their progress.

Participants in the intervention condition will receive the same advice as those in the comparator condition plus offer of the full version of the Smoke Free app free of charge, encouragement to use the app and a link to download it. The Smoke Free app is based on behaviour change techniques that would be expected from theory and evidence with facetoface support to aid smoking cessation. It guides smokers through the first month of their quit attempt by helping them to maintain their resolve by setting a clear goal, monitoring their progress towards that goal and becoming aware of benefits of being smokefree achieved to date. The app has several components:
1. A calculator which tracks the total amount of money not spent on buying cigarettes and the number of cigarettes not smoked (‘Dashboard')
2. A calendar which tracks the amount of time elapsed since cessation (‘Dashboard')
3. A scoreboard which awards virtual ‘badges' to users for not smoking (‘Badges')
4. Progress indicators which inform users of the health improvements made since the start of their quit attempt (e.g. pulse rate, oxygen levels, carbon monoxide levels; ‘Dashboard')
5. A diary which tracks the frequency, strength, location and triggers of cravings to smoke (‘Diary')
6. A graph which displays the frequency, location, strength and triggers of cravings to smoke (‘Cravings')
7. Daily missions which are assigned from the start of a user's quit date for one calendar month (‘Missions')
8. A chatbot which delivers evidencebased guidance about quitting smoking via a conversational interface which resembles text messaging (‘Chatbot')
9. 24/7 online expert support

The investigators will be blinded to participants' treatment allocation until all data have been collected.

Intervention Type
Device

Phase
Not Applicable

Drug/device/biological/vaccine name(s)
Smoke Free app

Primary outcome measure
Selfreported smoking cessation for at least 26 weeks, assessed 30 weeks after enrolment

Secondary outcome measures
Assessed using self report:
1. Having made at least one quit attempt in the 4 weeks following enrolment in the study
2. Smoking cessation for at least 12 weeks, assessed 4 weeks after enrolment
3. Downloading or using the Smoke Free app at least once, assessed 30 weeks after enrolment

Overall study start date
01/08/2018

Completion date
30/12/2021

Eligibility

Key inclusion criteria
1. Aged at least 18 years
2. Able to provide consent
3. English speaker
4. Owns a smartphone
5. Current cigarette smoker
6. Willing to be followedup by email and complete online questionnaires after 1, 4 and 30 weeks
7. Interested in making a quit attempt within the next month

Participant type(s)
Healthy volunteer

Age group
Adult

Lower age limit
18 Years

Sex
Both

Target number of participants
3,116

Total final enrolment
3143

Key exclusion criteria
1. Used the Smoke Free app in the past 6 months

Date of first enrolment
20/08/2020

Date of final enrolment
30/04/2021

Locations

Countries of recruitment

Afghanistan

Albania

Algeria

American Samoa

Andorra

Angola

Anguilla

Antarctica

Antigua and Barbuda

Argentina

Armenia

Aruba

Australia

Austria

Azerbaijan

Bahamas

Bahrain

Bangladesh

Barbados

Belarus

Belgium

Belize

Benin

Bermuda

Bhutan

Bolivia

Bonaire Saint Eustatius and Saba

Bosnia and Herzegovina

Botswana

Bouvet Island

Brazil

British Indian Ocean Territory

Brunei Darussalam

Bulgaria

Burkina Faso

Burundi

Cabo Verde

Cambodia

Cameroon

Canada

Cayman Islands

Central African Republic

Chad

Chile

China

Christmas Island

Cocos (Keeling) Islands

Colombia

Comoros

Congo

Congo, Democratic Republic

Cook Islands

Costa Rica

Croatia

Cuba

Curaçao

Cyprus

Czech Republic

Côte d'Ivoire

Denmark

Djibouti

Dominica

Dominican Republic

Ecuador

Egypt

El Salvador

England

Equatorial Guinea

Eritrea

Estonia

Eswatini

Ethiopia

Falkland Islands

Faroe Islands

Fiji

Finland

France

French Guiana

French Polynesia

French Southern Territories

Gabon

Gambia

Georgia

Germany

Ghana

Gibraltar

Greece

Greenland

Grenada

Guadeloupe

Guam

Guatemala

Guernsey

Guinea

Guinea-Bissau

Guyana

Haiti

Heard Island and McDonald Islands

Holy See (Vatican City State)

Honduras

Hong Kong

Hungary

Iceland

India

Indonesia

Iran

Iraq

Ireland

Isle of Man

Israel

Italy

Jamaica

Japan

Jersey

Jordan

Kazakhstan

Kenya

Kiribati

Korea, North

Korea, South

Kosovo

Kuwait

Kyrgyzstan

Lao People's Democratic Republic

Latvia

Lebanon

Lesotho

Liberia

Libya

Liechtenstein

Lithuania

Luxembourg

Macao

Madagascar

Malawi

Malaysia

Maldives

Mali

Malta

Marshall Islands

Martinique

Mauritania

Mauritius

Mayotte

Mexico

Micronesia, Federated States of

Moldova

Monaco

Mongolia

Montenegro

Montserrat

Morocco

Mozambique

Myanmar

Namibia

Nauru

Nepal

Netherlands

New Caledonia

New Zealand

Nicaragua

Niger

Nigeria

Niue

Norfolk Island

North Macedonia

Northern Mariana Islands

Norway

Oman

Pakistan

Palau

Palestine, State of

Panama

Papua New Guinea

Paraguay

Peru

Philippines

Pitcairn

Poland

Portugal

Puerto Rico

Qatar

Romania

Russian Federation

Rwanda

Réunion

Saint Barthélemy

Saint Helena, Ascension and Tristan da Cunha

Saint Kitts and Nevis

Saint Lucia

Saint Martin (French part)

Saint Pierre and Miquelon

Saint Vincent and the Grenadines

Samoa

San Marino

Sao Tome and Principe

Saudi Arabia

Senegal

Serbia

Seychelles

Sierra Leone

Singapore

Sint Maarten (Dutch part)

Slovakia

Slovenia

Solomon Islands

Somalia

South Africa

South Georgia and the South Sandwich Islands

South Sudan

Spain

Sri Lanka

Sudan

Suriname

Svalbard and Jan Mayen

Sweden

Switzerland

Syria

Taiwan

Tajikistan

Tanzania

Thailand

Timor-Leste

Togo

Tokelau

Tonga

Trinidad and Tobago

Tunisia

Turkmenistan

Turks and Caicos Islands

Tuvalu

Türkiye

Uganda

Ukraine

United Arab Emirates

United Kingdom

United States Minor Outlying Islands

United States of America

Uruguay

Uzbekistan

Vanuatu

Venezuela

Viet Nam

Virgin Islands, British

Virgin Islands, U.S.

Wallis and Futuna

Western Sahara

Yemen

Zambia

Zimbabwe

Åland Islands

Study participating centre
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Sponsor type
University/education

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ROR
https://ror.org/02jx3x895

Funder(s)

Funder type
Charity

Funder Name
Cancer Research UK

Alternative Name(s)
CR_UK, Cancer Research UK - London, CRUK

Funding Body Type
Private sector organisation

Funding Body Subtype
Other non-profit organizations

Location
United Kingdom

Results and Publications

Publication and dissemination plan
Planned publication in a peer-reviewed journal.

Intention to publish date

01/04/2023

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study will be stored in a publically available repository. (Open Science Framework, https://osf.io/umec4/). Anonymised data will be shared without restriction upon submission of the trial report to a peer-reviewed journal.

IPD sharing plan summary

Stored in repository

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol article	protocol	01/11/2019	08/10/2020	Yes	No
Preprint results	results	12/01/2023	18/01/2023	No	No
Results article		15/11/2024	27/11/2024	Yes	No